1-31-2000

Perrys daily check list. Date_____

LE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
y	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping					
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
day	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015531

1-28-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,52,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
daily	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping					
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
	mop isles in your area	east side of factory					
nesday	bale cardboard and clean around baler	loading dock					

1-27-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,52,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓	6.30am			
	cean outside front entrance and empty ash tray	east front entrance					
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

1-26-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
rday	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept					
day	clean windows in your area	dept. 70 80,85,shipping		6.30am			
	cean outside front entrance and empty ash tray	east front entrance	✓				
nesday	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock					

1-25-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance		6.30am			
	mop isles in your area	east side of factory					
nesday	bale cardboard and clean around baler	loading dock					

1-24-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping					
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

1-21-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
rday	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
	mop isles in your area	east side of factory					
nesday	bale cardboard and clean around baler	loading dock					

1-20-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
	mop isles in your area	east side of factory					
nesday	bale cardboard and clean around baler	loading dock					

1-19-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,52,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
rday	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping					
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015539

1-18-2000

Perrys daily check list. Date_____

DULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
esday	mop Isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015540

1-17-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
daily	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance		6.30am			
esday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015541

1-14-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
daily	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping					
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
esday	mop Isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015542

1-13-2000

Perrys daily check list. Date_____

:DULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓	6.30am			
	cean outside front entrance and empty ash tray	east front entrance					
esday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

1-12-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
day	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept					
day	clean windows in your area	dept. 70 80,85,shipping	✓	6.30am			
	cean outside front entrance and empty ash tray	east front entrance	✓				
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015544

DENNIS DAILY CHECK LIST. DATE 1-12-2000

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME	TIME-1	TIME-2	REMARKS
DAILY	clean drinking fountains	dept 61 and center isle					
DAILY	clean area around cyclone dust collector	west side of building	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
daily, 3 times	empty trash cans,cigarette and trays in west break area	west side building		9.30am	12.00noon	2.00p.m.	
DAILY	sweep, side break area and clean picnic tables	west side building	✓				
daily, 3times	empty trash in cafeteria	cafeteria					
daily	bale cardboard, clean baler and area	loading dock					
wednesday	wash windows and doors in your area	your work area					
daily	empty trash cans and cigarette cans in rear break area	rear parking lot		9.30a.m.	12.00noon	2.00p.m.	
daily	sweep rear break area and clean picnic areas	rear parking lot					
daily	clean area around dumpsters	rear parking lot		as needed			
daily	keep trash picked up on west and north side of building	outside					
friday	pick up trash in side parking lot and west lawn	west side					
thursday	keep rear parking lot drains clean	back parking lot					
daily	put out flag	front lawn	✓	8.30a.m.			
tuesday	mop isles	your area					
daily	clean rugs at west side entrance	west side					
monday	sweep and clean boiler room	boiler room, west side					

WWW_104(e)_015545

1-11-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,52,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
rday	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓	6.30am			
	cean outside front entrance and empty ash tray	east front entrance					
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015546

1-7-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept, 70,52,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
rday	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance		6.30am			
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015547

1-6-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
rday	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
nesday	mop Isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015548

1-5-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90					
	empty dust collectors, skake bags, clean,	dept. 70,62,91					
	clean, change rugs and clean rear entrance	rear employee entrance			10.00am	12.30am	
daily	empty trash cans on east side of building	east side building					
	police east outside of building,inc truck wells	east side					
rday	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept					
day	clean windows in your area	dept. 70 80,85,shipping		6.30am			
	cean outside front entrance and empty ash tray	east front entrance					
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015549

1-4-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
daily	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
rday	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance		6.30am			
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015550

1-3-2000

Perrys daily check list. Date_____

EDULE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓		10.00am	12.30am	
daily	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
rday	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
day	clean windows in your area	dept. 70 80,85,shipping					
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
nesday	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015551

MONTHLY PREVENTIVE MAINTENANCE
APRIL 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	BUTCH	GIE Inseamers	mod 1, 2, 5	check oil in gear box
	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly mark	insole area	grease head
	DAVE	Fire System	throughout bldg.	Run fire pump
	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
	DAVE	Factory	chemical room	check quanity of floor dry
	DAVE	Heaters	pump house	check that heater in pump house is on
	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
	DICK S.	ASHL	Dept. 67	grease head and slides
	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
	FRED R.	GD 100-2 compressor	compressor room	check air filter
	FRED R.	GD100HP compressor	compressor room	check air filter
	FRED R.	Sullair 60 h.p.	Compressor room	check air-filter
	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps.

MONTHLY PREVENTIVE MAINTENANCE
APRIL 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard

MONTHLY PREVENTIVE MAINTENANCE
MARCH 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
✓	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
✓	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
✓	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
✓	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
✓	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
✓	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
✓	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
✓	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly mark	insole area	grease head
	DAVE	Fire System	throughout bldg.	Run fire pump
✓	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
✓	DAVE	Factory	chemical room	check quanity of floor dry
✓	DAVE	Heaters	pump house	check that heater in pump house is on
✓	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
✓	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
✓	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
✓	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
✓	DICK S.	ASHL	Dept. 67	grease head and slides
✓	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
✓	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
✓	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
✓	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
✓	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
✓	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
✓	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
✓	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
✓	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
✓	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
✓	FRED R.	GD 100-2 compressor	compressor room	check air filter
✓	FRED R.	GD100HP compressor	compressor room	check air filter
✓	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
✓	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
✓	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
✓	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
✓	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mbing oil on gear box, clean fans on tank, gear, screw, and table motors.
✓	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
✓	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
✓	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
✓	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
✓	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
✓	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
✓	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
✓	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
✓	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
✓	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps,

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MONTHLY PREVENTIVE MAINTENANCE
MARCH 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
✓	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
✓	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
✓	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
✓	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
✓	KATHY	Exhaust Hood	kitchen	drain grease from hood
	~~MIKE T.~~	~~Roof after cooler~~	compressor room	~~check fluid level on roof and fan belts~~
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
✓	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
✓	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard

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WEEKLY P.M. MARCH 26TH - 31ST

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. MARCH 26TH - 31ST

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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MONTHLY PREVENTIVE MAINTENANCE
FEBRUARY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly mark	insole area	grease head
	DAVE	Fire System	throughout bldg.	Run fire pump
	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
	DAVE	Factory	chemical room	check quanity of floor dry
	DAVE	Heaters	pump house	check that heater in pump house is on
	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
	DICK S.	ASHL	Dept. 67	grease head and slides
	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
	FRED R.	GD 100-2 compressor	compressor room	check air filter
	FRED R.	GD100HP compressor	compressor room	check air filter
	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	TOM H.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	TOM H.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	TOM H.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	TOM H.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	TOM H.	Conference air cond	on roof	blow out radiators, check fan belts
	TOM H.	Roof Drains	on roof	inspect and clean debre from drain caps.

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MONTHLY PREVENTIVE MAINTENANCE
FEBRUARY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
✓	TOM H.	Truck well drain	center truck well	clean debre and ice for proper flow
✓	TOM H.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
✓	TOM H.	Back truck well drain	outside	clean debre and ice for proper flow
✓	TOM H.	parking lot drain	back parking lot	clean debre and ice for proper flow
✓	TOM H.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	TOM H.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	TOM H.	Cyclone dust collector	outside	clean debre and ice for proper flow
	TOM H.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	TOM H.	Large poly mist collector.	poly plant	clean motor, blower and check belt condition, wipe down unit
	TOM H.	Poly Outside Dust Collector	outside poly	check condition of bags
	TOM H.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	TOM H.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
✓	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
✓	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
✓	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
✓	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard

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MONTHLY PREVENTIVE MAINTENANCE
JANUARY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
✓	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
✓	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
✓	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
✓	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
✓	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
✓	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
✓	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
✓	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly mark	insole area	grease head
✓	DAVE	Fire System	throughout bldg.	Run fire pump
✓	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
✓	DAVE	Heaters	pump house	check that heater in pump house is on
✓	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
✓	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
✓	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
✓	DICK S.	ASHL	Dept. 67	grease head and slides
✓	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
✓	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
✓	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
✓	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
✓	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
✓	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
✓	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
✓	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
✓	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
✓	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
✓	FRED R.	GD 100-2 compressor	compressor room	check air filter
✓	FRED R.	GD100HP compressor	compressor room	check air filter
✓	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
✓	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
✓	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
✓	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
✓	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
✓	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
✓	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
✓	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
✓	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
✓	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
✓	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	TOM H.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	TOM H.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	TOM H.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	TOM H.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	TOM H.	Conference air cond	on roof	blow out radiators, check fan belts
	TOM H.	Roof Drains	on roof	inspect and clean debre from drain caps.

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MONTHLY PREVENTIVE MAINTENANCE
JANUARY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	TOM H.	Truck well drain	center truck well	clean debre and ice for proper flow
	TOM H.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	TOM H.	Back truck well drain	outside	clean debre and ice for proper flow
	TOM H.	parking lot drain	back parking lot	clean debre and ice for proper flow
	TOM H.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	TOM H.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	TOM H.	Cyclone dust collector	outside	clean debre and ice for proper flow
	TOM H.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	TOM H.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	TOM H.	Poly Outside Dust Collector	outside poly	check condition of bags
	TOM H.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	TOM H.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard

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WEEKLY P.M. 8/25/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. _____

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
✓	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
✓	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
✓	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
✓	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
✓	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
✓	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
✓	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
✓	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
✓	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
✓	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
✓	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
✓	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
—	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
—	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
•	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
SC	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

WEEKLY P.M. 8/17/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Arm, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centn Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. _____

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition (if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
✓	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
✓	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
✓	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
✓	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
✓	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
✓	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
✓	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
✓	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
✓	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
✓	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
✓	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
✓	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
✓	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
✓	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
✓	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
✓	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 7/7/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

VACATION

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WEEKLY P.M. _____

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
✓	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
✓	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
✓	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
✓	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
✓	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
✓	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
✓	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
✓	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
✓	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
✓	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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6/19/00

WEEKLY P.M. June 23. 2001

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M	Poly mark	insole area	fill pneumatic lubricator
	DAN M	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R	compressor auto drains	compressor room	clean screen on main air tank
	FRED R	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. _____

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 6/9 to 6/16/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. _____

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 5/27/ to 6/2/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. _____

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 5/19/01 to 5/26/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Arn, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
✓	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
✓	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
✓	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
✓	MIKE T	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
✓	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
✓	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
✓	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
✓	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
✓	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
✓	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. MAY 14th - 19th 2001

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT-	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. MAY 14th - 19th 2001

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. MAY 7TH - 12TH 2001

P	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. MAY 7TH - 12TH 2001

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. APRIL 30TH - MAY 5TH.

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. APRIL 30TH - MAY 5TH.

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. APRIL 23RD. - 28TH.

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. APRIL 23RD. - 28TH.

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. APRIL 16TH. - 21ST.

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am. Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. APRIL 16TH. - 21ST.

✓	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. APRIL 9TH. - 14TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. APRIL 9TH. - 14TH

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
✓	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
✓	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
✓	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
✓	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
✓	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. APRIL 2ND. - 7TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear.and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. APRIL 2ND. - 7TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 3/24 to 3/31/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Jcv 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. _____

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. MARCH 19TH - 24TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. MARCH 19TH - 24TH

P	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 3/10/ to 3/17/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. _____

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

WEEKLY P.M. MARCH 5TH - 10TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. MARCH 5TH - 10TH

MECHANIC	MACHINE	LOCATION	DUTIES
JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. FEB. 26TH - MARCH 3RD.

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Arn, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. FEB. 26TH - MARCH 3RD.

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. Hi-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. FEB. 19TH - 24TH

P	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. FEB. 19TH - 24TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

WWW_104(e)_015601

WEEKLY P.M. FEB. 5TH - 10TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Arn, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. FEB. 5TH - 10TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. JAN 22ND - 27TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. JAN 22ND - 27TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	TOM H.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	TOM H.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	TOM H.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	TOM H.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	TOM H.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	TOM H.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	TOM H.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	TOM H.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	TOM H.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	TOM H.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	TOM H.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	TOM H.	Poly Chiller 1	truck well	check radiator filters and fluid level
	TOM H.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	TOM H.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	TOM H.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. JAN 15TH - 20TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Arm, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. JAN 15TH - 20TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	TOM H.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	TOM H.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	TOM H.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	TOM H.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	TOM H.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	TOM H.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	TOM H.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	TOM H.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	TOM H.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	TOM H.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	TOM H.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	TOM H.	Poly Chiller 1	truck well	check radiator filters and fluid level
	TOM H.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	TOM H.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	TOM H.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. JAN 8TH - 13TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
	DAN M.	Poly mark	insole area	fill pneumatic lubricator
	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
15	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
1	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
1	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. JAN 8TH - 13TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	TOM H.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	TOM H.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	TOM H.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	TOM H.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	TOM H.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	TOM H.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	TOM H.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	TOM H.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	TOM H.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	TOM H.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	TOM H.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	TOM H.	Poly Chiller 1	truck well	check radiator filters and fluid level
	TOM H.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	TOM H.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	TOM H.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. JAN 3RD - 6TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Arn, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. JAN 3RD - 6TH

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
✓	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
✓	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
✓	TOM H.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
✓	TOM H.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
✓	TOM H.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
✓	TOM H.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	TOM H.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	TOM H.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	TOM H.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	TOM H.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	TOM H.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	TOM H.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	TOM H.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	TOM H.	Poly Chiller 1	truck well	check radiator filters and fluid level
	TOM H.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	TOM H.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	TOM H.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. JAN 29TH - FEB. 3RD.

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. JAN 29TH - FEB. 3RD.

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
✓	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
✓	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
✓	TOM H.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
✓	TOM H.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	TOM H.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
✓	TOM H.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
✓	TOM H.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
✓	TOM H.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
✓	TOM H.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
✓	TOM H.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
✓	TOM H.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
✓	TOM H.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
✓	TOM H.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
✓	TOM H.	Poly Chiller 1	truck well	check radiator filters and fluid level
✓	TOM H.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
✓	TOM H.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
✓	TOM H.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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MONTHLY PREVENTIVE MAINTENANCE

[redacted] Dec - 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
✓	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
✓	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
✓	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
✓	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
✓	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
✓	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly 24 station PBA 91.	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly mark	insole area	grease head
✓	DAVE	Fire System	throughout bldg.	Run fire pump
✓	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
✓	DAVE	Factory	chemical room	check quanity of floor dry
✓	DAVE	Heaters	pump house	check that heater in pump house is on
	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
✓	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
	DICK S.	ASHL	Dept. 67	grease head and slides
	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
✓	FRED R.	GD 100-2 compressor	compressor room	check air filter
✓	FRED R.	GD100HP compressor	compressor room	check air filter
✓	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
✓	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
✓	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
✓	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
✓	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
✓	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
✓	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
✓	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
✓	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
✓	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Desma pvc, HLA nailer, Cutting machir	throughout bldg.	inspect hydraulic, water, hoses, replace if any signs of wear or fatigue,
✓	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps,

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MONTHLY PREVENTIVE MAINTENANCE Rec 01
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	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	~~KATHY~~ M.H	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	~~KATHY~~ M.H	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	~~KATHY~~ M.H	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	~~KATHY~~ M.H	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	~~KATHY~~ M.H	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard
	JOE P	compactor	west side	grease slides, inspect for wear, check oil level, check for leaks, check operation

Check ventalation

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MONTHLY PREVENTIVE MAINTENANCE
~~JULY 2001~~

Nov-2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
✓	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
✓	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
✓	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
✓	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
✓	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
✓	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly 24 station PSA 91.	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly mark	insole area	grease head
✓	DAVE	Fire System	throughout bldg.	Run fire pump
✓	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
✓	DAVE	Factory	chemical room	check quanity of floor dry
✓	DAVE	Heaters	pump house	check that heater in pump house is on
✓	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
✓	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
✓	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
✓	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
✓	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
✓	DICK S.	ASHL	Dept. 67	grease head and slides
✓	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
✓	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
✓	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
✓	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
✓	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
✓	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
✓	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
✓	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
✓	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
✓	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
✓	FRED R.	GD 100-2 compressor	compressor room	check air filter
✓	FRED R.	GD100HP compressor	compressor room	check air filter
✓	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
✓	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
✓	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
✓	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
✓	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
✓	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
✓	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
✓	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
✓	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
✓	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
✓	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Desma pvc, HLA naller, Cutting machir	throughout bldg.	inspect hydraulic, water, hoses, replace if any signs of wear or fatigue,
	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps,

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MONTHLY PREVENTIVE MAINTENANCE
JULY 2001

NOV - 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
Check Ventalation	Mart ~~KATHY~~	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	Mart ~~KATHY~~	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	Mart ~~KATHY~~	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	Mart ~~KATHY~~	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	Mart ~~KATHY~~	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard
	JOE P	compactor	west side	grease slides, inspect for wear, check oil level, check for leaks, check operation

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MONTHLY PREVENTIVE MAINTENANCE
2001 October 01

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
✓	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
✓	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
✓	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
✓	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
✓	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
✓	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
✓	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly mark	insole area	grease head
✓	DAVE	Fire System	throughout bldg.	Run fire pump
✓	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
✓	DAVE	Factory	chemical room	check quanity of floor dry
✓	DAVE	Heaters	pump house	check that heater in pump house is on
✓	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
✓	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
✓	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
✓	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
✓	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
✓	DICK S.	ASHL	Dept. 67	grease head and slides
✓	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
✓	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
✓	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
✓	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
✓	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
✓	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
✓	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
✓	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
✓	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
✓	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
✓	FRED R.	GD 100-2 compressor	compressor room	check air filter
✓	FRED R.	GD100HP compressor	compressor room	check air filter
✓	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
✓	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
✓	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
✓	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
✓	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
✓	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
✓	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
✓	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
✓	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
✓	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
✓	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Desma pvc, HLA nailer, Cutting machir	throughout bldg.	inspect hydraulic, water, hoses, replace if any signs of wear or fatigue,
	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps,

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MONTHLY PREVENTIVE MAINTENANCE
[redacted] 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	[redacted]	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	[redacted]	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	[redacted]	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	[redacted]	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	[redacted]	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard
	JOE P	compactor	west side	grease slides, inspect for wear, check oil level, check for leaks, check operation

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September 2001

MONTHLY PREVENTIVE MAINTENANCE
~~JULY~~ 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
✓	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
✓	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
✓	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
✓	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
✓	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
✓	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
✓	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
✓	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly 24 station PBA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly mark	insole area	grease head
✓	DAVE	Fire System	throughout bldg.	Run fire pump
✓	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
✓	DAVE	Factory	chemical room	check quanity of floor dry
✓	DAVE	Heaters	pump house	check that heater in pump house is on
✓	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
✓	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
✓	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
✓	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
✓	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
✓	DICK S.	ASHL	Dept. 67	grease head and slides
✓	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
✓	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
✓	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
✓	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
✓	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
✓	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
✓	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
✓	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
✓	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
✓	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
✓	FRED R.	GD 100-2 compressor	compressor room	check air filter
✓	FRED R.	GD100HP compressor	compressor room	check air filter
✓	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
✓	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
✓	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
✓	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
✓	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
✓	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
✓	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
✓	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
✓	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
✓	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
✓	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Desma pvc, HLA nailer, Cutting machir	throughout bldg.	inspect hydraulic, water, hoses, replace if any signs of wear or fatigue,
	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps,

WWW_104(e)_015620

September 2001

MONTHLY PREVENTIVE MAINTENANCE
JULY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard
	JOE P	compactor	west side	grease slides, inspect for wear, check oil level, check for leaks, check operation

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MONTHLY PREVENTIVE MAINTENANCE

August 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
✓	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
✓	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
✓	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
✓	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
✓	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
✓	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
✓	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
✓	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
✓	DAN M.	Poly mark	insole area	grease head
✓	DAVE	Fire System	throughout bldg.	Run fire pump
✓	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
✓	DAVE	Factory	chemical room	check quanity of floor dry
✓	DAVE	Heaters	pump house	check that heater in pump house is on
✓	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
✓	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
✓	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
✓	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
✓	DICK S.	ASF.	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
✓	DICK S.	ASHL	Dept. 67	grease head and slides
✓	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
✓	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
✓	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
✓	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
✓	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
✓	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
✓	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
✓	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
✓	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
✓	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
✓	FRED R.	GD 100-2 compressor	compressor room	check air filter
✓	FRED R.	GD100HP compressor	compressor room	check air filter
✓	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
✓	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
✓	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
✓	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
✓	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
✓	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
✓	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
✓	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
✓	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
✓	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
✓	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
SC	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Desma pvc, HLA nailer, Cutting machir	throughout bldg.	inspect hydraulic, water, hoses, replace if any signs of wear or fatigue,
	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps,

← Fred →

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MONTHLY PREVENTIVE MAINTENANCE
JULY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
Sc	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
Joe	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard
	JOE P	compactor	west side	grease slides, inspect for wear, check oil level, check for leaks, check operation

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MONTHLY PREVENTIVE MAINTENANCE
JULY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
	BUTCH	Prime Rib machine	insole area	~~clean air filter, lubricate bearings~~
	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly mark	insole area	grease head
	DAVE	Fire System	throughout bldg.	Run fire pump
	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
	DAVE	Factory	chemical room	check quanity of floor dry
	DAVE	Heaters	pump house	check that heater in pump house is on
	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
	DICK S.	ASHL	Dept. 67	grease head and slides
	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
	FRED R.	GD 100-2 compressor	compressor room	check air filter
	FRED R.	GD100HP compressor	compressor room	check air filter
	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
SC	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps,

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MONTHLY PREVENTIVE MAINTENANCE
JULY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard

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MONTHLY PREVENTIVE MAINTENANCE
JUNE 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
	DAN M.	Check Emergency Lights	throughout bldg.	make sure lights come on in test mode
	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly mark	insole area	grease head
	DAVE	Fire System	throughout bldg.	Run fire pump
	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
	DAVE	Factory	chemical room	check quanity of floor dry
	DAVE	Heaters	pump house	check that heater in pump house is on
	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
	DICK S.	ASHL	Dept. 67	grease head and slides
	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
	FRED R.	GD 100-2 compressor	compressor room	check air filter
	FRED R.	GD100HP compressor	compressor room	check air filter
	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
	FRED R.	East ground air make up	outside poly	grease-motor bearings and shaft, check excessive noise
	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Roof Drains	on roof	inspect and clean debre from drain caps,

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MONTHLY PREVENTIVE MAINTENANCE
JUNE 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Exhaust Hood	kitchen	drain grease from hood
	~~MIKE T.~~	~~Roof after cooler~~	~~compressor room~~	~~check fluid level on roof and fan belts~~
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
	NELS	Burnham boiler	boiler room	test pressure safety valves
	NELS	Johnson boiler	Boiler room	test pressure safety valves
	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard

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MONTHLY PREVENTIVE MAINTENANCE
MAY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
	BUTCH	GIS Inseamers	mod 1, 2, 5	check oil in gear box
	BUTCH	Prime Rib machine	insole area	clean air filter, lubricate bearings
	DAN M.	BHSS Sole Stitcher	mod 1, 2, 5	grease take up mechanism, clean locks if necessary
	DAN M.	Boiler High Pressure Valves	boiler room	test high pressure valves on Burnham and Johnson boilers
	DAN M.	Check-Emergency Lights	throughout bldg.	make sure lights come on in test mode
	DAN M.	Compo Bottom Cementer	mod 1, 2, 5	grease bearing shafts, gears, pump, and lubricate motor
	DAN M.	Cork Bottom Fill	mod 1	check pneumatic lubricator
	DAN M.	Poly 12 station PUR	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly 24 station PSA 91	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	DAN M.	Poly mark	insole area	grease head
	DAVE	Fire System	throughout bldg.	Run fire pump
	DAVE	Hazardous Spill Kit	chemical room	check and refill with absorbent socks and bags as necessary
	DAVE	Factory	chemical room	check quanity of floor dry
	DAVE	Heaters	pump house	check that heater in pump house is on
	DAVE	Lockout Procedure	maint. room	review lockout procedure with maintenance and document
	DAVE	Ventilation Ducts	throughout bldg.	check for loose or broken pipes, correct placement per layout
	DICK S.	ISO Tanks	poly plant	test and clean ISO pressure relief valves
	DICK S.	Centri Spray dust collector	maint. room	clean bottom of main and paddle tank
	DICK S.	ASF	mod 1, 2, 5 & 67	check reflector vents, clean on two shift operation
	DICK S.	ASHL	Dept. 67	grease head and slides
	DICK S.	BUAR-5	Dept. 67	grease pivot joints, clean magnets, electrical panels, vaccum, shoe box gears
	DICK S.	Compo Sole Layer	mod 1, 2, 5 & 67	check pads for leaks and lubricate if necessary
	DICK S.	Dept. 67 Conveyor	Dept. 67	oil chain, clean sprockets and rollers, adjust chain tension, repair air leaks
	DICK S.	Dock Computer	loading dock	clean or change filter and wipe out dust
	DICK S.	Fire Extinguishers	throughout bldg.	check condition, replace if necessary, fill out inspection tag
	DICK S.	Heat Blowers	throughout bldg.	clean air inlet, lubricate motor
	DICK S.	Maintenance Dept.	maint., boiler, & air rooms	do monthly safety inspection
	DICK S.	Steel toe press	mod 1, 2, 5 & 67	fill pneumatic lubricator
	DICK S.	welt rollers	mod 1, 2, 5 & 67	grease and oil bearings
	DICK S.	SR 92 AUTO SANDER	AUTO CEMENT LINE	check sanding bed, belt and pressure rolls for proper operation - repair as necessary
	FRED R.	GD 100-2 compressor	compressor room	check air filter
	FRED R.	GD100HP compressor	compressor room	check air filter
	FRED R.	Sullair 60 h.p.	Compressor room	check air filter
	FRED R.	Joy 50 H.P.	Compressor Room	check air filter
	FRED R.	Sullair 25 H.P.	compressor Room	check air filter
	FRED R.	Compressor auto drains	compressor room	clean screens on line drains
	FRED R.	Contential 505 G trimmer	mod 1, 2, 5	grease shaft bearings
	FRED R.	Desma PUR machines (all 3)	poly plant	grease mold stations, table cams - check mixing oil on gear box, clean fans on tank, gear, screw, and table motors.
	FRED R.	Desma PVC machines	desma area	check oil level in gear box and hydraulic unit
	FRED R.	East ground air make up	outside poly	grease motor bearings and shaft, check excessive noise
	FRED R.	Main Air Receivers 2	compressor room	clean prefilter, wipe down compressor
	FRED R.	Silpar Rough Trimmer	mod 1	grease cutter shaft, (two nipples on side of the machine)
	FRED R.	24 Station RGE 96	poly plant	check gear oil in tank circulators, clean motor fan, grease mold circulating pump motor
	SHAWN C.	HMF B & J	mod 1, 2, 5 & 67	blow out radiators
	SHAWN C.	Poly roof air cond.	on roof	blow out radiators, check fan belts
	SHAWN C.	Poly ground air cond.	east side bldg.	blow out radiators, check fan belts
	SHAWN C.	cafeteria air conditioner	on roof	blow out radiators, check fan belts
	SHAWN C.	Conference air cond	on roof	blow out radiators, check fan belts
	SHAWN C.	Roof Drains.	on roof	inspect and clean debre from drain caps,

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MONTHLY PREVENTIVE MAINTENANCE
MAY 2001

	MECH	MACHINE	LOCATION	MONTHLY DUTIES
✓	SHAWN C.	Truck well drain	center truck well	clean debre and ice for proper flow
✓	SHAWN C.	out side truck well drain	outside center truck well	clean debre and ice for proper flow
✓	SHAWN C.	Back truck well drain	outside	clean debre and ice for proper flow
✓	SHAWN C.	parking lot drain	back parking lot	clean debre and ice for proper flow
✓	SHAWN C.	Spray booths	throughout bldg.	check and replace bags on sprinkler heads
✓	SHAWN C.	Cyclone dust collector	outside, west	lubricate main shaft bearings
✓	SHAWN C.	Cyclone dust collector	outside	clean debre and ice for proper flow
✓	SHAWN C.	Desma PUR machines (all 3)	poly plant	grease tank shaft, seals and check lubrication level on gear boxes on all
✓	SHAWN C.	Large poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
✓	SHAWN C.	Poly Outside Dust Collector	outside poly	check condition of bags
✓	SHAWN C.	small poly mist collector	poly plant	clean motor, blower and check belt condition, wipe down unit
✓	SHAWN C.	Step and Extension Ladders	factory	inspect for broken rungs, cracks and general condition
	KATHY	Men's cen. restroom	men's restroom south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's cen. restroom	women's south of maint.	inspect fixtures for water leaks, clean exhaust vents
	KATHY	men's east restroom	men's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Women's east side	women's east side	inspect fixtures for water leaks, clean exhaust vents
	KATHY	Exhaust Hood	kitchen	drain grease from hood
	MIKE T.	Roof after cooler	compressor room	check fluid level on roof and fan belts
	MIKE T.	dry collector pipe	factory	clean main pipe
	MIKE T.	wet collector pipe	factory	clean mod 2 main pipe
	MIKE T.	Auto cement dryer, SR10	cement line	lubricate drive sprockets, bearings chain tension, gear box lub.
	MIKE T.	Auto cement machine, SR 89	cement line	lubricate bearings and chain
	MIKE T.	Auto cement sander, SR 300	cement line	lubricate shaft bearings
	MIKE T.	Auto cement unloader	cement line	lubricate sprocket and bearings
	MIKE T.	McKay outside heel nailer	mod 1, 5	check hydraulic oil
	MIKE T.	O'Dell Ribber	insole area	fill pneumatic lubricator, clean air filter
	MIKE T.	Wet Blaster	poly plant	Check media pump unit as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check air line equipment as stated on schedule sheet
	MIKE T.	Wet Blaster	poly plant	Check fastenings and connections as stated on schedule sheet
✓	NELS	Burnham boiler	boiler room	test pressure safety valves
✓	NELS	Johnson boiler	Boiler room	test pressure safety valves
✓	NELS	Condicating tank filter	Boiler room	drain filter
	NELS	Burnham \ Johnson boiler	boiler room	test low and high pressure gas cut-off valves on boiler in use
✓	PERRY	East 1 exhaust fan	by Mod 1	clean fan and fan guard
✓	PERRY	East 2 exhaust fan	by Mod 2	clean fan and fan guard

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WEEKLY P.M. 1-5-2002

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 1-5-2002

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 12/22/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 12/22/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 12/15/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 12/15/01

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 12/8/01

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	~~KATHY~~ Mary	Men's center restroom	Men's center	use drain cleaner in urinals
	~~KATHY~~ Mary	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 12/3/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 11/26/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am. Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 11/26/01

P	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
✓	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

WWW_104(e)_015639

WEEKLY P.M. 11/24/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

WWW_104(e)_015640

WEEKLY P.M. 11/24/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 11/17/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
√	DAN M.	Am. Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
√	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
√	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
√	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
√	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
√	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
√	DAN M.	Poly mark	insole area	fill pneumatic lubricator
√	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
√	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
√	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
√	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
√	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
√	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
√	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
√	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
√	DAVE	Fire System	throughout factory	check system per schedule
√	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
√	DAVE	Safety cage	Maintenance	check condition of cage for safety
√	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
√	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
√	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
√	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
√	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
√	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
√	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
√	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
√	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
√	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
√	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
√	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
√	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
√	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
√	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
√	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
√	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
√	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
√	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
√	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
√	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
√	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
√	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 11/10/01

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 11/10/06

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	~~KATHY~~ MARTY	Men's center restroom	Men's center	use drain cleaner in urinals
	~~KATHY~~ MARTY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
—	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
✓	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
✓	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
✓	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
✓	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 11-3-01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 11-3-01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 10/27/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	~~KATHY~~ MARTY	Men's center restroom	Men's center	use drain cleaner in urinals
	~~KATHY~~ MARTY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 10/27/01

P	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Arm, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 10-20-01

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY North	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY North	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
✓	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
✓	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
✓	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
✓	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
✓	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 10-20-01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 10/13/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 10/13/01

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
✓	~~KATHY~~ Mark	Men's center restroom	Men's center	use drain cleaner in urinals
✓	~~KATHY~~ Marty	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 10/06/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 10/06/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 9/29/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 9/29/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition, if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 9/22/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 9/22/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 9/15/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

WWW_104(e)_015660

WEEKLY P.M. 9/15/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. September 8 2001

	MECHANIC	MACHINE	LOCATION	DUTIES
✓	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
✓	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
✓	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
✓	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
✓	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
—	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
—	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
—	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
—	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
—	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
SC	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. Sept 8, 2001

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 9/01/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 9-01-01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

WWW_104(e)_015665

WEEKLY PM 8/4/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Arm, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
	FRED R	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
	FRED R	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 8/4/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 7/28/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 7/28/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or changa radiator filters, check fluid level, repair any leaks
x	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 7/21/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 7/21/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 7/14/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take-up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

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WEEKLY P.M. 7/14/01

P	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
✓	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
✓	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
✓	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
✓	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
✓	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
✓	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
✓	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
✓	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
✓	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
✓	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
✓	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON ✓	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON ✓	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON ✓	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON ✓	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
SC	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

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WEEKLY P.M. 6/23/to 6/29/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am, Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
	DAVE	Fire System	throughout factory	check system per schedule
	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

WWW_104(e)_015674

WEEKLY P.M. 6/29/01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
SC	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

WWW_104(e)_015675

6/2/01 to 6-9-01

WEEKLY P.M.

	MECHANIC	MACHINE	LOCATION	DUTIES
	ALL		FACTORY	REPAIR AIR LEAKS WHERE POSSIBLE
✓	DAN M.	Am. Git trimmers	mod 1, 2, 5	grease shaft bearings, gears
✓	DAN M.	buffers & shaggers	dept. 90, 63, 70	grease bearings
✓	DAN M.	check exit lighting	all exit doors	make sure all lights are working, repair if necessary
✓	DAN M.	Desma 24 St. Poly 95-96 heads	Poly plant	lubricate spindle shaft at rear and front
✓	DAN M.	Edge trimmers	mod 1, 2, 5, 67	grease shaft bearings
✓	DAN M.	Poly 12 station PUR	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly 24 station PSA91	Poly plant	fill pneumatic lubricator, repair air and oil leaks
✓	DAN M.	Poly mark	insole area	fill pneumatic lubricator
✓	DAN M.	Poly sole activator	Poly plant	check oven for burned out elements and controllers are working
✓	DAN M.	RUT upper trimmers	mod 1, 2, 5	check knife guards for proper adjustments, (pencil width, 5/16 inch)
✓	DAN M.	UIH 1200 heel nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	UIH 1500 gang nailer	mod 1, 5	fill pneumatic lubricator
✓	DAN M.	Welt butt tacker WBT	mod 1	check oil reservoir
✓	DAN M.	GIS	mod 1, 2, 5	check to make sure oiler is working & machine is being lubed
✓	DAN M.	Heel scours	mod 1, 2, 5, outsole line	grease shaft bearings
✓	DAVE	Bench grinders	Maintenance room	check guards, and tool rest to make sure they are adjusted correctly
✓	DAVE	Fire System	throughout factory	check system per schedule
✓	DAVE	Pump house	S.W. corner of bldg.	check operation of heater, check for leaks
✓	DAVE	Safety cage	Maintenance	check condition of cage for safety
✓	DICK S.	BHSS sole stitcher	mod 1, 2, 5	grease shaft bearings, take up mechanism
✓	DICK S.	ABC	Dept. 67	fill pneumatic lubricator
✓	DICK S.	ASF	mod 1, 2, 5, 67	fill pneumatic lubricators, check cooling water
✓	DICK S.	ASHL	Dept. 67	check that we have spare cement hose on hand, repair if necessary
✓	DICK S.	ASHL	Dept. 67	fill pneumatic lubricator
✓	DICK S.	BE-A insole stapler	through out factory	fill pneumatic lubricator
✓	DICK S.	BUAR-5	Dept. 67	fill pneumatic lubricator
✓	DICK S.	Centri Spray dust collector	Maint. room	wash down dust inside main tank, clean outside of machine, lubricate
✓	DICK S.	Compo sole layer	mod 1, 2, 5, 67	fill pneumatic lubricator
✓	DICK S.	UBMA	Dept. 67	check if extra activation hand clamps are ready to use
✓	DICK S.	UBMA -E	Dept. 67	fill pneumatic lubricator, check to see if spare heads are rebuilt
✓	FRED R.	Conveyor Dept. 67	Dept. 67	check for dead spots, check stops for proper operation, repair as necessary
✓	FRED R.	Oil seperator	compressor room	empty seperated oil can into waste oil drum
✓	FRED R.	compressor auto drains	compressor room	clean screen on main air tank
✓	FRED R.	Desma PVC machines	Desma area	fill pneumatic lubricator, repair air and oil leaks, check oil temp
✓	FRED R.	GD-2 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	GD 100HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Joy 50 HP Compressor	compressor room	clean radiators, clean compressor
✓	FRED R.	Refrigerated dryers	compressor room	clean radiators, check compressor heater
✓	FRED R.	Sullair 25 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Sullair 60 HP	compressor room	clean radiators, clean compressor
✓	FRED R.	Silpar Rough Trimmer	Mod 1	grease revolving guide, (feed wheel)
✓	FRED R.	sole sander	outsole area	fill pneumatic lubricator, check oil in hydraulic reservoir

WWW_104(e)_015676

WEEKLY P.M. 6-9-01

	MECHANIC	MACHINE	LOCATION	DUTIES
	JOE P.	Poly Dust Collection System	Poly plant	clean dust collection pipes, and check clean outs outside
	JOE P.	Cyclone dust collector	outside, west	clean hopper, sweep outside
	JOE P.	Man hole covers on property	entire premises	check that all covers are in place and in good condition,(if not, safe guard
	JOE P.	Eye wash stations	Poly plant and factory	flush out eye wash station and clean basin in Poly, clean portable stations throughout factory
	JOE P.	Maint. HI-LO	Maint. Dept.	Check battery water level, hydraulic hoses, fluid levels
	KATHY	Men's center restroom	Men's center	use drain cleaner in urinals
	KATHY	Men's east side restroom	Men's east side	use drain cleaner in urinals
	MIKE T.	4-point trimmers	Poly plant	check oil level in bearing case
	MIKE T.	Auto cement sander SR 300	cement line	fill pneumatic lubricator
	MIKE T.	Auto cement unloader	cement line	fill pneumatic lubricator
	MIKE T.	Desma 12 ST. Poly	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 91 Head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Desma 24 ST. Poly 95-96 head	Poly plant	grease spindle shaft, use special high speed grease.
	MIKE T.	Dry collector pipe	factory	check for any unnecessary openings or take offs
	MIKE T.	DVHZ Compact	Mod 1, 2, 5, 67	fill pneumatic lubricator, repair extra teflon cement tube
	MIKE T.	HMF	Mod 1, 2, 5, 67	Check if spare hot mold block is rebuilt, rebuild if necessary
	MIKE T.	HMF-D&J	Mod 1, 2, 5, 67	fill pneumatic lubricator, monitor usage
	MIKE T.	Odell Ribber	Insole Line	fill pneumatic lubricator, monitor usage
	MIKE T.	UBMA-E	Dept 67	check if spare toe pad has been rebuilt
	MIKE T.	wet collector pipe	factory	check for any unnecessary openings or take offs
	NELSON	Burnham Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	Johnson Boiler	Boiler room	fill chemical tank, test softener, clean return tank screen
	NELSON	RUT Upper Trimmers	Dept. 61, 63, 70	check finger guards the pencil cannot to thru opening
	NELSON	Vehicle Restraints	Loading Docks	check that position sensors are working freely and unit is free of debree
	NELSON	Welding Tanks	Maintenance Room	check that tanks are labeled correctly and secured to wall, valves covered
SC	SHAWN C.	24 Station RGE 96	Poly plant	check table heat liquid level, check tank heat liquid level
SC	SHAWN C.	24 Station RGE 95 & 96	Poly plant	check air filter on processor, replace if necessary
	SHAWN C.	Cafeteria air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Desma chiller 1	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma chiller 2	Desma area	clean or change radiator filters, check fluid level, repair any leaks
	SHAWN C.	Desma PUR Machines (all 3)	Poly Plant	check mold heat liquid level on all three machines
	SHAWN C.	Desma PVC Machines	Desma area	check oil level in hydraulic reservoirs, empty drip pans
	SHAWN C.	Desma PVC Machines	Desma area	repair any oil leaks, keep floors dry and oil free
	SHAWN C.	Large Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan
	SHAWN C.	Poly Ground Air Conditioner	east side of building	clean radiator filters, check water trap
	SHAWN C.	Poly Roof Air Conditioner	on roof	clean radiator filters, check water trap
	SHAWN C.	Poly Chiller 1	truck well	check radiator filters and fluid level
	SHAWN C.	RGE 95 Material tanks	Poly plant	check heat fluid level dip stick, fill if necessary, check pump seals
	SHAWN C.	Security Doors	Dept. 61 & 70	check to see if alarm works on 3 side doors
SC	SHAWN C.	Small Poly mist collector	Poly plant	check filters, clean as necessary, drain oil pan

WWW_104(e)_015677

10/11/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

WWW_104(e)_015678

JOE'S DAILY CHECK LIST DATE 10/8/01

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

10/4/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015680

10/3/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15prn	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area	✓				
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015681

10/2/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15prn	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015682

00/1/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard; clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015683

9/28/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break a	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

JOE'S DAILY CHECK LIST DATE 9/27/01

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

9/24/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	-
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15prn	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015686

9/21/0(

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

WWW_104(e)_015687

9/25/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015688

9/19/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area	✓				
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015689

9/18/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15prn	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015690

9/17/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015691

9/14/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

WWW_104(e)_015692

9/13/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

9/12/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area	✓				
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015694

9/10/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015695

9/6/07

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015696

9/4/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015697

8/31/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

WWW_104(e)_015698

8/30/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015699

8/29/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area	✓				
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015700

8/28/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

8/27/07

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015702

8/24/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

8/23/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle					
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015704

8/22/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area	✓				
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015705

8/21/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015706

8/20/07

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS 1
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break a	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015707

8/17/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15prn	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

WWW_104(e)_015708

8/16/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

WWW_104(e)_015709

6/15/07

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area	✓				
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015710

8/14/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015711

8/13/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15prn	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015712

7/31/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle					
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot		9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot					
DAILY	clean area around compactor	rear parking lot		as needed			
DAILY	keep trash picked up on west and north side of buil	outside			12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015713

7/30/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015714

7/23/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15prn	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015715

7/20/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

WWW_104(e)_015716

6/11/01

JOE'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	PUT OUT FLAG	front lawn	✓				
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of buil	outside	✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break	west side building	✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

10-11-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

10-10-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

10-9-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

10-8-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

10-5-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

10/4/01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

10-3-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

10-2-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

10-1-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-28-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-27-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-26-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-25-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-24-01.

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-21-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-20-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-19-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-17-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-14-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-13-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-12-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-11-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-10-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-7-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-6-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-5-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

9-4-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-31-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-30-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-29-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-28-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-27-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-24-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-23-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-22-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-21-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-20-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-17-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-15-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-14-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-13-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-16-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-10-01

PERRY'S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

PERRY'S DAILY CHECK LIST DATE 8-9-01

SCHEDULE	MAINTENANCE	LOCATION
✓ daily	clean drinking fountains	depts - 67, 70 & 90
✓ daily	empty dust collectors, shake bags, clean	depts - 53 & 70
✓ daily	clean, change rugs and clean rear entrance	rear employee entrance
✓ daily	police east outside of building, inc truck wells	east side
✓ daily	clean, change rug in shipping dept	shipping dept
✓ daily	clean outside front entrance and empty ash tray	east front entrance
✓ daily	bale cardboard and clean around baler	loading dock
✓ twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

PERRY'S DAILY CHECK LIST DATE 8-8-01

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

PERRY'S DAILY CHECK LIST DATE 8-7-01

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

PERRY'S DAILY CHECK LIST DATE 8-6-01

SCHEDULE	MAINTENANCE	LOCATION
daily	clean drinking fountains	depts - 67, 70 & 90
daily	empty dust collectors, shake bags, clean	depts - 53 & 70
daily	clean, change rugs and clean rear entrance	rear employee entrance
daily	police east outside of building, inc truck wells	east side
daily	clean, change rug in shipping dept	shipping dept
daily	clean outside front entrance and empty ash tray	east front entrance
daily	bale cardboard and clean around baler	loading dock
twice daily	empty trash cans on east side of building	east side building
Saturday	clean under dept 67 conveyor	dept 67
Tuesday	clean windows in your area	depts - 80, 85, & 70
Wednesday	mop isles in your area	east side of factory
Friday	pick up trash across street fromparking lot and factory	east and north sides

8-2-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front enhance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

8-3-01

Perrys daily check list, Date_____

LE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	8.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015766

8-1-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop Isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015767

7-31-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015768

7-30-01

Perrys daily check list, Date_____

	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
E	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	8.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015769

7-27-01

Parrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015770

7-26-01

Perrys daily check list. Date_____

	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
E	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015771

7-25-01

Perrys daily check list, Date_____

LE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015772

7-24-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015773

7-23-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	oading dock	✓				

7-20-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

7-19-01

Perrys daily check list. Date_____

LE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side					
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015776

7-18-01

Perrys daily check list. Date_____

LE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	ean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015777

7-17-01

Perrys daily check list, Date

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015778

7-16-01

Peirys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015779

6-28-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and emply ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015780

6-27-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015781

6-26-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	8.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015782

6-25-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015783

6-22-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015784

6-21-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015785

6-20-01

Perrys daily check list, Date_____

.E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015786

6/18/01

Perrys daily check list. Date_____

LE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015787

6-18-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

5-17-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015789

5-16-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	3.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015790

5-15-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	3.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015791

5-14-01

Perrys daily check list. Date

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	8.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015792

5-11-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	8.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015793

5-10-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015794

5-9-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015795

5-8-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	8.30am			
ay	mop Isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015796

5-07-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015797

5-4-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015798

5-3-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop Isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015799

5-2-01

Pairys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015800

5-1-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015801

4-30-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015802

4-26-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015803

4-25-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side					
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	3.30am			
ay	mop Isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015804

4-24-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	3.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015805

4-23-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept, 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015806

4-20-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	oading dock	✓				

WWW_104(e)_015807

4-19-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓			
	empty trash cans on east side of building	east side building	✓		10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015808

4-18-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015809

4-17-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015810

4-16-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015811

4-13-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015812

4-12-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	clean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015813

4-11-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building					
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015814

4-10-01

Perrys daily check list, Date_____

	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
E	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side					
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓	6.30am			
	clean outside front entrance and empty ash tray	east front entrance	✓				
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015815

4-9-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side					
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓	6.30am			
	clean outside front entrance and empty ash tray	east front entrance	✓				
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015816

4-6-01

Perrys daily check list, Date_____

LE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,52,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
y	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
lay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

SEF 502

4-5-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓	6.30am			
	cean outside front entrance and empty ash tray	east front entrance	✓				
ay	mop Isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015818

4-4-01 Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean,	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015819

4-3-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop Isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015820

4-2-01

Parrys daily check list. Date_____

	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
E	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015821

3-29-01

Perrys daily check list, Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	3.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015822

2-23-01

Perrys daily check list, Date_____

LE	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept, 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓				
	empty trash cans on east side of building	east side building	✓	✓	10.00am	12.30am	
	police east outside of building,inc truck wells	east side	✓				
	clean under dept 67 conveyor	dept 67					
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept, 70 80,85,shipping	✓				
	cean outside front entrance and empty ash tray	east front entrance	✓	6.30am			
ay	mop isles in your area	east side of factory					
	bale cardboard and clean around baler	loading dock	✓				

WWW_104(e)_015823

2-22-01

Perrys daily check list. Date_____

E	MAINTENANCE	LOCATION	CHECK	CHECK	TIME-1	TIME-2	REMARKS
	clean drinking fountains	dept.70, 67,90	✓				
	empty dust collectors, skake bags, clean	dept. 70,62,91	✓				
	clean, change rugs and clean rear entrance	rear employee entrance	✓	✓	10.00am	12.30am	
	empty trash cans on east side of building	east side building	✓				
	police east outside of building,inc truck wells	east side					
	clean under dept 67 conveyor	dept 67	✓				
	clean, change rug in shipping dept	shipping dept	✓				
	clean windows in your area	dept. 70 80,85,shipping	✓	6.30am			
	cean outside front entrance and empty ash tray	east front entrance					
ay	mop isles in your area	east side of factory	✓				
	bale cardboard and clean around baler	loading dock					

WWW_104(e)_015824

ROB'S DAILY CHECK LIST DATE 10-15-04

LE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
	clean drinking fountains	dept 61and center isle	✓				
	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
	bale cardboard, clean baler and area	loading dock	✓				
	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
	sweep rear break area and clean picnic areas	rear parking lot	✓				
	clean area around compactor	rear parking lot	✓	as needed			
	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
	clean rugs at west side entrance	west side	✓				
TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
WIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
	sweep and clean boiler room	boiler room, west side					
	mop isles	your area					
day	wash windows and doors in your area	your work area					
	pick up trash in side parking lot and west lawn	west side	✓				

DAILY CHECK LIST

10-15-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept.90.67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side					
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63	✓				
friday	pick up trash in back parking lot and surronding grounds	outside	✓				
Friday	clean eye wash station	through out factory	✓				

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-15-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

PERRY'S DAILY CHECK LIST

DATE 10-15-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK ✓	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES	✓			

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-15-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE								RC	GL	RC
CHECK FOR VISIBLE EMISSIONS								RC	GL	RC
CHECK FOR CLOGGED SYSTEM								RC	GL	RC
SHAKE BAGS								RC	GL	RC
EMPTY BARRELS								RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR								RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

10-14-04

ROB'S DAILY CHECK LIST DATE _____

ILE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
	clean drinking fountains	dept 61and center isle	✓				
	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
	bale cardboard, clean baler and area	loading dock	✓				
	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
	sweep rear break area and clean picnic areas	rear parking lot	✓				
	clean area around compactor	rear parking lot	✓	as needed			
	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
	clean rugs at west side entrance	west side	✓				
; TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
WIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
	sweep and clean boiler room	boiler room, west side					
	mop isles	your area					
day	wash windows and doors in your area	your work area					
	pick up trash in side parking lot and west lawn	west side					

DAILY CHECK LIST

10-14-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept,90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side					
Thursday	clean under dept 61, conveyor	dept 61	✓				
Thursday	clean under line, Dept. 92	dept 92	✓				
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-14-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

PERRY'S DAILY CHECK LIST

DATE 10-14-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-14-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE	PA	PA	PA	PA	PA	PA		RC	GL	RC
CHECK FOR VISIBLE EMISSIONS	PA	PA	PA	PA	PA	PA		RC	GL	RC
CHECK FOR CLOGGED SYSTEM	PA	PA	PA	PA	PA	PA		RC	GL	RC
SHAKE BAGS	PA	PA	PA	PA	PA	PA		RC	GL	RC
EMPTY BARRELS	PA	PA	PA	PA	PA	PA		RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR	PA	PA	PA	PA	PA	PA		RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

PERRY'S DAILY CHECK LIST

DATE 10-13-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY	✓			
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-13-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE	RA	RA	RA	RA	RA	RA		RC	GL	RC
CHECK FOR VISIBLE EMISSIONS	RA	RA	RA	RA	RA	RA		RC	GL	RC
CHECK FOR CLOGGED SYSTEM	RA	RA	RA	RA	RA	RA		RC	GL	RC
SHAKE BAGS	RA	RA	RA	RA	RA	RA		RC	GL	RC
EMPTY BARRELS	RA	RA	RA	RA	RA	RA		RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR	RA	RA	RA	RA	RA	RA		RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

DAILY CHECK LIST

13
10-~~0~~-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept.90.67.70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room			--		
Wednesday	clean and sweep loading dock areas, east side	east side	✓				
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

13

ROB'S DAILY CHECK LIST DATE 10-~~14~~-04

'LE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
	clean drinking fountains	dept 61and center isle	✓				
	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
	bale cardboard, clean baler and area	loading dock	✓				
	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
	sweep rear break area and clean picnic areas	rear parking lot	✓				
	clean area around compactor	rear parking lot	✓	as needed			
	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
	clean rugs at west side entrance	west side	✓				
; TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
'WIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
	sweep and clean boiler room	boiler room, west side					
	mop isles	your area					
day	wash windows and doors in your area	your work area	✓				
	pick up trash in side parking lot and west lawn	west side					

DATE_____

DAILY PREVENTIVE MAINTENANCE

13
10-14-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

ROB'S DAILY CHECK LIST DATE 10-12-04

ILE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
	clean drinking fountains	dept 61and center isle	✓				
	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
	bale cardboard, clean baler and area	loading dock	✓				
	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
	sweep rear break area and clean picnic areas	rear parking lot	✓				
	clean area around compactor	rear parking lot	✓	as needed			
	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
	clean rugs at west side entrance	west side	✓				
; TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
WIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
	sweep and clean boiler room	boiler room, west side					
	mop isles	your area	✓				
day	wash windows and doors in your area	your work area					
	pick up trash in side parking lot and west lawn	west side					

DAILY CHECK LIST

10-12-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept,90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room	✓				
Wednesday	clean and sweep loading dock areas, east side	east side					
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-12-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

PERRY'S DAILY CHECK LIST

DATE 10-12-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK ✓	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70	✓			
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-12-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE								RC	GL	
CHECK FOR VISIBLE EMISSIONS								RC	GL	
CHECK FOR CLOGGED SYSTEM								RC	GL	
SHAKE BAGS								RC	GL	
EMPTY BARRELS								RC	GL	
EMPTY BOTTOM OF BAG COLLECTOR								RC	GL	
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

ROB'S DAILY CHECK LIST DATE 10-11-04

'LE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
	clean drinking fountains	dept 61and center isle	✓				
	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
	bale cardboard, clean baler and area	loading dock	✓				
	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
	sweep rear break area and clean picnic areas	rear parking lot	✓				
	clean area around compactor	rear parking lot	✓	as needed			
	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
	clean rugs at west side entrance	west side	✓				
; TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
'WIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
	sweep and clean boiler room	boiler room, west side					
	mop isles	your area					
day	wash windows and doors in your area	your work area					
	pick up trash in side parking lot and west lawn	west side					

DAILY CHECK LIST

10-11-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept.90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room					
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side					
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

PERRY'S DAILY CHECK LIST

DATE 10-11-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-11-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-11-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE	Da	Da	Da	Da	Da	Da		RC	GL	RC
CHECK FOR VISIBLE EMISSIONS	Da	Da	Da	Da	Da	Da		RC	GL	RC
CHECK FOR CLOGGED SYSTEM	Da	Da	Da	Da	Da	Da		RC	GL	RC
SHAKE BAGS	Da	Da	Da	Da	Da	Da		RC	GL	RC
EMPTY BARRELS	Da	Da	Da	Da	Da	Da		RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR	Da	Da	Da	Da	Da	Da		RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

DAILY CHECK LIST

10-8-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept,90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west. and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side					
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63	✓				
friday	pick up trash in back parking lot and surronding grounds	outside	✓				
Friday	clean eye wash station	through out factory	✓				

ROB'S DAILY CHECK LIST DATE 10-8-04

'LE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
	clean drinking fountains	dept 61and center isle	✓				
	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
	bale cardboard, clean baler and area	loading dock	✓				
	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
	sweep rear break area and clean picnic areas	rear parking lot	✓				
	clean area around compactor	rear parking lot	✓	as needed			
	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
	clean rugs at west side entrance	west side	✓				
; TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
'WIC	empty trash in cafeteria	cafeteria.	✓✓	8:00am	12:30pm		
	sweep and clean boiler room	boiler room, west side					
	mop isles	your area					
day	wash windows and doors in your area	your work area					
	pick up trash in side parking lot and west lawn	west side	✓				

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-8-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

PERRY'S DAILY CHECK LIST

DATE 10-8-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES	✓			

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-8-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE	Ok	Ok	Ok	Ok	Ok	Ok		RC	GL	RC
CHECK FOR VISIBLE EMISSIONS	Ok	Ok	Ok	Ok	Ok	Ok		RC	GL	RC
CHECK FOR CLOGGED SYSTEM	Ok	Ok	Ok	Ok	Ok	Ok		RC	GL	RC
SHAKE BAGS	Ok	Ok	Ok	Ok	Ok	Ok		RC	GL	RC
EMPTY BARRELS	Ok	Ok	Ok	Ok	Ok	Ok		RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR	Ok	Ok	Ok	Ok	Ok	Ok		RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-7-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

PERRY'S DAILY CHECK LIST

DATE 10-7-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

ROB'S DAILY CHECK LIST DATE 10 - 7-04

SCHEDULE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans. cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

DAILY CHECK LIST

10-7-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept.90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6:30pm	9:30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9:30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side					
Thursday	clean under dept 61, conveyor	dept 61	✓				
Thursday	clean under line, Dept. 92	dept 92	✓				
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-7-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE								RC	GL	RC
CHECK FOR VISIBLE EMISSIONS								RC	GL	RC
CHECK FOR CLOGGED SYSTEM								RC	GL	RC
SHAKE BAGS								RC	GL	RC
EMPTY BARRELS								RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR								RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

ROB'S DAILY CHECK LIST DATE 10-6-04

ILE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
	clean drinking fountains	dept 61and center isle	✓				
	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
	bale cardboard, clean baler and area	loading dock	✓				
	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
	sweep rear break area and clean picnic areas	rear parking lot	✓				
	clean area around compactor	rear parking lot	✓	as needed			
	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
	clean rugs at west side entrance	west side	✓				
; TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
WIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
	sweep and clean boiler room	boiler room, west side					
	mop isles	your area					
day	wash windows and doors in your area	your work area	✓				
	pick up trash in side parking lot and west lawn	west side					

DAILY CHECK LIST

10-6-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept,90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side	✓				
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-6-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

PERRY'S DAILY CHECK LIST

DATE 10-6-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY	✓			
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-6-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE								RC	GL	RC
CHECK FOR VISIBLE EMISSIONS								RC	GL	RC
CHECK FOR CLOGGED SYSTEM								RC	GL	RC
SHAKE BAGS								RC	GL	RC
EMPTY BARRELS								RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR								RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

ROB'S DAILY CHECK LIST DATE 10-5-04

SCHEDULE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash.cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

DAILY CHECK LIST

10-5-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept,90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room	✓				
Wednesday	clean and sweep loading dock areas, east side	east side	✓				
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-5-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

PERRY'S DAILY CHECK LIST

DATE 10-5-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70	✓			
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-5-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE	DA	DA	DA	DA	DA	DA		RC	GL	RC
CHECK FOR VISIBLE EMISSIONS	DA	DA	DA	DA	DA	DA		RC	GL	RC
CHECK FOR CLOGGED SYSTEM	DA	DA	DA	DA	DA	DA		RC	GL	RC
SHAKE BAGS	DA	DA	DA	DA	DA	DA		RC	GL	RC
EMPTY BARRELS	DA	DA	DA	DA	DA	DA		RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR	DA	DA	DA	DA	DA	DA		RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

ROB'S DAILY CHECK LIST DATE 10-4-04

SCHEDULE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015870

DAILY CHECK LIST

10-4-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept,90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side	✓				
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

WWW_104(e)_015871

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-4-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

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PERRY'S DAILY CHECK LIST

DATE 10-4-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

WWW_104(e)_015873

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 10-4-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE								RC	GL	RC
CHECK FOR VISIBLE EMISSIONS								RC	GL	RC
CHECK FOR CLOGGED SYSTEM								RC	GL	RC
SHAKE BAGS								RC	GL	RC
EMPTY BARRELS								RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR								RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

WWW_104(e)_015874

DATE_____

DAILY PREVENTIVE MAINTENANCE

10-1-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

ROB'S DAILY CHECK LIST DATE 10-1-04

SCHEDULE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side	✓				

DAILY CHECK LIST

10-1-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept.90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side	✓				
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63	✓				
friday	pick up trash in back parking lot and surronding grounds	outside	✓				
Friday	clean eye wash station	through out factory	✓				

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
QUARTERLY Check off

DATE: 10-1-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE	Ok	Ok	Ok	Ok	Ok	Ok	R.C		GL	R.C
CHECK FOR VISIBLE EMISSIONS	Ok	Ok	Ok	Ok	Ok	Ok	R.C		GL	R.C
CHECK FOR CLOGGED SYSTEM	Ok	Ok	Ok	Ok	Ok	Ok	R.C		GL	R.C
CHECK FOR EXCESSIVE WEAR ON BAGS, TENSION RINGS, RETAINER PLATES, AIR VALVES AND FILTERS	Ok	Ok	Ok	Ok	Ok	Ok	R.C		GL	R.C.
GREASE PILLOW BLOCKS WHERE APPLICABLE							O.m		GL	O.m
OTHER MAINTENANCE & REPAIRS ON BACK									GL	—
OTHER COMMENTS ON BACK OF PAGE										

ROB'S DAILY CHECK LIST DATE 9-30-04

SCHEDULE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015879

DAILY CHECK LIST

9-30-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept.90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side	✓				
Thursday	clean under dept 61, conveyor	dept 61	✓				
Thursday	clean under line, Dept. 92	dept 92	✓				
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

WWW_104(e)_015880

DATE_____

DAILY PREVENTIVE MAINTENANCE

9-30-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

WWW_104(e)_015881

PERRY'S DAILY CHECK LIST

DATE 9-30-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK ✓	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

WWW_104(e)_015882

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 9-30-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE	QA	QA	QA	QA	QA	QA		RC	GL	R
CHECK FOR VISIBLE EMISSIONS	QA	QA	QA	QA	QA	QA		RC	GL	R
CHECK FOR CLOGGED SYSTEM	QA	QA	QA	QA	QA	QA		RC	GL	R
SHAKE BAGS	QA	QA	QA	QA	QA	QA		RC	GL	R
EMPTY BARRELS	QA	QA	QA	QA	QA	QA		RC	GL	R
EMPTY BOTTOM OF BAG COLLECTOR	QA	QA	QA	QA	QA	QA		RC	GL	R
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

WWW_104(e)_015883

ROB'S DAILY CHECK LIST DATE 9-29-04

SCHEDULE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area	✓				
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015884

DAILY CHECK LIST

9-29-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept.90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side	✓				
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

WWW_104(e)_015885

DATE_____

DAILY PREVENTIVE MAINTENANCE

9-29-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS INSEAMERS	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	GD 100-2 COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	GD100HP-COMPRESSOR	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	SULLAIR 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	JOY 50 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	FRED R.	KAISER 60 H.P.	COMPRESSOR ROOM	CHECK OIL LEAVEL, DRAIN WATER SEPERATOR, CHECK FOR AIR AND OIL LEAKS
✓	DAN M.	BHSS SOLE STITCHER	MOD 1,2, & 5	CHECK TO SEE IF OIL PUMP IS OPERATING
✓	FRED R.	WET COLLECTOR PIPE	FACTORY	CLEAN MAIN PIPE IN DEPT. 67
✓	JOE P. & ROB	CYCLONE DUST COLLECTOR	OUTSIDE	CHECK OUTSIDE SHOOT
✓	NELSON	BURNHAM BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	NELSON	JOHNSON BOILER	BOILER ROOM	TEST CHEMICALS, BLOW DOWN BOILER AND LOW WATER CUT OFFS
✓	FRED R	REFRIGERATED DRYERS	COMPRESSOR ROOM	CHECK COOLING TEMP
✓	PERRY	BAG COLLECTOR 1	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 2	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 3	MOD 1	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 4	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 5	OUTSOLE LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 6	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	PERRY	BAG COLLECTOR 7	AUTO CEMENT LINE	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	ROB C.	BAG COLLECTOR 8	MOD 5	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR
✓	JOE P.	POLY OUTSIDE DUST COLLECTOR	EAST SIDE OF BUILDING	SHAKE BAGS, EMPTY BOTTOM OF BAG COLLECTOR

WWW_104(e)_015886

PERRY'S DAILY CHECK LIST

DATE 9-29-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY	✓			
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

WWW_104(e)_015887

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 9-29-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE								RC	GL	RC
CHECK FOR VISIBLE EMISSIONS								RC	GL	RC
CHECK FOR CLOGGED SYSTEM								RC	GL	RC
SHAKE BAGS								RC	GL	RC
EMPTY BARRELS								RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR								RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

WWW_104(e)_015888

DAILY PREVENTIVE MAINTENANCE

DATE _____

9-28-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS Inseamers	mod 1, 2, & 5	check to see if oil pump is operating
✓	FRED R.	GD 100-2 compressor	compressor room	check oil level, drain water seperator, check for air and oil leaks,
✓	FRED R.	GD100HP compressor	compressor room	check oil level, drain water seperator, check for air and oil leaks,
✓	FRED R.	Sullair 60 h.p.	Compressor room	check oil level, drain water seperator, check for air and oil leaks,
✓	FRED R.	Joy 50 H.P.	Compressor Room	check oil level, drain water seperator, check for air and oil leaks,
✓	FRED R.	KAISER 60H.P.	compressor Room	check oil level, drain water seperator, check for air and oil leaks,
✓	DAN M.	BHSS sole stitcher	mod 1, 2, & 5	check to see if oil pump is operating
✓	FRED R	wet collector pipe	factory	clean main pipe in dept. 67
✓	JOE P. & ROB	cyclone dust collector	outside	check out side shoot
✓	NELS	Burnham boiler	boiler room	test chemicals, blow down boiler and low water cut offs,
✓	NELS	Johnson boiler	Boiler room	test chemicals, blow down boiler and low water cut offs,
✓	FRED R	Refrigerated dryers	compressor room	check cooling temp.
✓	PERRY	Bag collector 1	Mod 1	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 2	Mod 1	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 3	Mod 1	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 4	Outsole line	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 5	Outsole line	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 6	auto cement line	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 7	auto cement line	shake bags, empty bottom of bag collector
✓	ROB C.	Bag collector 8	mod 5	shake bags, empty bottom of bag collector
✓	JOE P	Poly outside dust collector	least side of building	shake bags, empty bottom of bag collector

WWW_104(e)_015889

PERRY'S DAILY CHECK LIST

DATE 9-28-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70	✓			
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

WWW_104(e)_015890

ROB'S DAILY CHECK LIST DATE 9-21-04

SCHEDULE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY.	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side					
Tuesday	mop isles	your area	✓				
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015891

DAILY CHECK LIST

9-28-04

LUPE,S DAILY CHECK LIST DATE_____

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept,90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room	✓				
Wednesday	clean and sweep loading dock areas, east side	east side					
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

WWW_104(e)_015892

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 9-28-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE								RC	GL	RC
CHECK FOR VISIBLE EMISSIONS								RC	GL	RC
CHECK FOR CLOGGED SYSTEM								RC	GL	RC
SHAKE BAGS								RC	GL	RC
EMPTY BARRELS								RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR								RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

WWW_104(e)_015893

ROB'S DAILY CHECK LIST DATE 9-27-04

SCHEDULE	MAINTENANCE	LOCATION	CHEC	TIME 1	TIME 2	TIME 3	REMARKS
DAILY	clean drinking fountains	dept 61and center isle	✓				
DAILY	empty barrels and clean dust collector in dept 61	west side dept 61	✓	11.15am			
DAILY	sweep side break area and clean picnic tables	west side building	✓✓		12.00noon	2.00p.m.	
DAILY	bale cardboard, clean baler and area	loading dock	✓				
DAILY	empty trash cans and cigarette cans in rear break ar	rear parking lot	✓	9.30a.m.			
DAILY	sweep rear break area and clean picnic areas	rear parking lot	✓				
DAILY	clean area around compactor	rear parking lot	✓	as needed			
DAILY	keep trash picked up on west and north side of build	outside	✓✓		12.00noon	2.00p.m.	
DAILY	clean rugs at west side entrance	west side	✓				
DAILY, 3 TIM	empty trash cans, cigarette and trays in west break a	west side building	✓✓	9.30am	12:15pm	1:45pm	
DAILY, TWIC	empty trash in cafeteria	cafeteria	✓✓	8:00am	12:30pm		
Monday	sweep and clean boiler room	boiler room, west side	✓				
Tuesday	mop isles	your area					
Wednesday	wash windows and doors in your area	your work area					
Friday	pick up trash in side parking lot and west lawn	west side					

WWW_104(e)_015894

DAILY CHECK LIST

9-27-04

LUPE,S DAILY CHECK LIST DATE

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3	REMARKS
daily	clean drinking fountains	dept,90,67,70	✓				
daily	empty barrels and clean dust collector in dept 70	east side of 70	✓				
3 times	empty trash cans and ash trays in back break area	back of building	✓	6;30pm	9;30pm	11:30pm	
daily	empty trash and dust mop cafeteria	cafeteria	✓		9;30pm		
daily	sweep back parking lot and storage area	back parking lot	✓				
daily	bale cardboard and clean area around baler	rear loading dock	✓				
daily	empty dust collector barrel and hopper for Poly	outside, east side	✓				
daily	clean area around poly dust collector and air cond,	outside, east side	✓				
daily	clean area around compactor	outside, west side	✓				
daily	sweep and empty trash in restrooms	center and east side	✓				
daily	change rug and clean rear entrance	rear entrance					
daily	keep walkways clear of ice and snow	front, west, and back					
daily	empty dust collector barrel at auto cement line	auto cement line	✓				
daily	empty trash and sweep floor - report any leaks, etc.	barrel room	✓				
Tuesday	clean and sweep compressor room	compressor room					
Wednesday	clean and sweep loading dock areas, east side	east side					
Thursday	clean under dept 61, conveyor	dept 61					
Thursday	clean under line, Dept. 92	dept 92					
Friday	clean under dept 63 conveyor	dept 63					
friday	pick up trash in back parking lot and surronding grounds	outside					
Friday	clean eye wash station	through out factory					

WWW_104(e)_015895

DAILY PREVENTIVE MAINTENANCE

DATE _____

9-27-04

	MECH.	MACHINE	LOCATION	DAILY DUTIES
✓	DAN M.	GIS Inseamers	mod 1, 2, & 5	check to see if oil pump is operating
✓	FRED R.	GD 100-2 compressor	compressor room	check oil level, drain water seperator, check for air and oil leaks,
✓	FRED R.	GD100HP compressor	compressor room	check oil level, drain water seperator, check for air and oil leaks,
✓	FRED R.	Sullair 60 h.p.	Compressor room	check oil level, drain water seperator, check for air and oil leaks,
✓	FRED R.	Joy 50 H.P.	Compressor Room	check oil level, drain water seperator, check for air and oil leaks,
✓	FRED R.	KAISER 60H.P.	compressor Room	check oil level, drain water seperator, check for air and oil leaks,
✓	DAN M.	BHSS sole stitcher	mod 1, 2, & 5	check to see if oil pump is operating
✓	FRED R	wet collector pipe	factory	clean main pipe in dept. 67
✓	JOE P. & ROB	cyclone dust collector	outside	check out side shoot
✓	NELS	Burnham boiler	boiler room	test chemicals, blow down boiler and low water cut offs,
✓	NELS	Johnson boiler	Boiler room	test chemicals, blow down boiler and low water cut offs,
✓	FRED R	Refrigerated dryers	compressor room	check cooling temp.
✓	PERRY	Bag collector 1	Mod 1	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 2	Mod 1	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 3	Mod 1	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 4	Outsole line	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 5	Outsole line	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 6	auto cement line	shake bags, empty bottom of bag collector
✓	PERRY	Bag collector 7	auto cement line	shake bags, empty bottom of bag collector
✓	ROB C.	Bag collector 8	mod 5	shake bags, empty bottom of bag collector
✓	JOE P	Poly outside dust collector	east side of building	shake bags, empty bottom of bag collector

WWW_104(e)_015896

PERRY'S DAILY CHECK LIST

DATE 9-27-04

SCHEDULE	MAINTENANCE	LOCATION	CHECK	TIME-1	TIME-2	TIME-3
DAILY	CLEAN DRINKING FOUNTAINS	DEPTS 67-70 & 90	✓			
DAILY	EMPTY DUST COLLECTORS, SHAKE BAGS, CLEAN	DEPT. 53 & 70	✓			
DAILY	CLEAN, CHANGE RUGS AND CLEAN REAR ENTRANCE	REAR EMPLOYEE ENTRANCE	✓			
DAILY	POLICE EAST OUTSIDE OF BUILDING, INC TRUCK WELLS	EAST SIDE	✓			
DAILY	CLEAN, CHANGE RUG IN SHIPPING DEPT.	SHIPPING DEPT	✓			
DAILY	BALE CARDBOARD AND CLEAN AROUND BALER	LOADING DOCK	✓	6:30 A.M.		
DAILY	CLEAN OUTSIDE FRONT ENTRANCE AND EMPTY ASH TRAY	EAST FRONT ENTRANCE	✓			
TWICE DAILY	EMPTY TRASH CANS ON EAST SIDE OF BUILDING	EAST SIDE OF BUILDING	✓	✓	10:00 A.M.	12:30 P.M.
SATURDAY	CLEAN UNDER 67 CONVEYOR	DEPT 67				
TUESDAY	CLEAN WINDOWS IN YOUR AREA	DEPT. 80, 85 & 70				
WEDNESDAY	MOP ISLES IN YOUR AREA	EAST SIDE OF FACTORY				
FRIDAY	PICK UP TRASH ACROSS STREET FROM PARKING LOT AND FACTORY	EAST AND NORTH SIDES				

WWW_104(e)_015897

Wolverine World Wide, Inc.
Preventive Maintenance Record
Bag Houses
Daily Check off

DATE: 9-27-04

	BAG #1	BAG #2	BAG #3	BAG #4	BAG #5	BAG #6	BAG #7	BAG #8	BAG #9	CYCLONE COLLECTOR
CHECK FOR LEAKS, DUST ON GROUND, EXCESSIVE NOISE								RC	GL	RC
CHECK FOR VISIBLE EMISSIONS								RC	GL	RC
CHECK FOR CLOGGED SYSTEM								RC	GL	RC
SHAKE BAGS								RC	GL	RC
EMPTY BARRELS								RC	GL	RC
EMPTY BOTTOM OF BAG COLLECTOR								RC	GL	RC
OTHER MAINTENANCE & REPAIRS ON BACK										
OTHER COMMENTS ON BACK OF PAGE										

WWW_104(e)_015898

ACCEPTED BY O.S.H.A. AS ESSENTIALLY SIMILIAR TO O.S.H.A. FORM 20

24-HOUR EMERGENCY TELEPHONE: 606-324-1133 (LOCATED AT ASHLAND, KENTUCKY)

ASHLAND PRODUCT NAME: SODIUM BIFLUORIDE

WOLVERINE WORLD WIDE
ATTN: BRIGITTE KNOTTS
123 NORTH MAIN STREET
ROCKFORD, MICH 49351

ATTN: PURCHASING/SAFETY DEPT.

05 50 031 9855770-
DATA SHEET NO: 0001127-002
LATEST REVISION DATE: 08/83-83222
PRODUCT: 3921050
INVOICE: 870492
INVOICE DATE: 01/16/83
TO: WOLVERINE WORLD WIDE
TANNING PLANT
123 NORTH MAIN STREET
ROCKFORD, MICH 49351

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: SALTS

HAZARD CLASSIFICATION: (09) CORROSIVE MATERIAL (173.240)

SECTION II-HAZARDOUS COMPONENTS

INGREDIENT	PERCENT	PEL	TLV		*
SODIUM BIFLUORIDE	>95	2.5	2.5	MG/CUM	(1)

(1): AS (F). NIOSH RECOMMENDS A LIMIT OF 2.5 MG/CUM AS (F), 8 HOUR TIME WEIGHTED AVERAGE.

SECTION III-PHYSICAL DATA

PROPERTY	REFINEMENT	MEASUREMENT
INITIAL BOILING POINT	UNAVAILABLE	
VAPOR PRESSURE	FOR PRODUCT	106.00 MMHG @ 2.00 DEG F (-16.66 DEG C)
VAPOR DENSITY	UNAVAILABLE	
SPECIFIC GRAVITY		2.080 @ 68.00 DEG F (20.00 DEG C)
PERCENT VOLATILES	UNAVAILIABLE	
EVAPORATION RATE	UNAVAILABLE	

SECTION IV-FIRE AND EXPLOSION DATA

FLASH POINT UNAVAILABLE

EXPLOSIVE LIMIT NOT APPLICABLE

EXTINGUISHING MEDIA: WATER FOG

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, HYDROGEN FLUORIDE, ETC.

SPECIAL FIREFIGHTING PROCEDURES: WATER MAY BE USED TO EXTINGUISH FIRE BY COOLING, AND DILUTING LIQUID WITH WATER.
SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.

UNUSUAL FIRE & EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL 2.5 MG/CUM

THRESHOLD LIMIT VALUE 2.5 MG/CUM

NOT ESTABLISHED FOR PRODUCT. SEE SECTION II.

EFFECTS OF OVEREXPOSURE: FOR PRODUCT

EYES - CAUSES SEVERE DAMAGE AND EVEN BLINDNESS VERY RAPIDLY.
SKIN - CAUSES BURNS, POSSIBLE DEEP ULCERATION.
BREATHING - OF FUMES CAN CAUSE IRRITATION; DUST CAN CAUSE BURNS OR IRRITATION OF THE MUCOUS MEMBRANES.
IF SWALLOWED - MAY CAUSE GASTROINTESTINAL IRRITATION AND LARGE AMOUNTS MAY CAUSE SERIOUS HARM.

FIRST AID:

IF ON SKIN: IMMEDIATELY FLUSH EXPOSED AREA WITH WATER FOR AT LEAST 15 MINUTES, GET MEDICAL ATTENTION. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

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CONTINUED ON PAGE: 2

SECTION V-HEALTH HAZARD DATA (CONTINUED)

IF IN EYES: IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES, LIFTING UPPER AND LOWER LIDS OCCASIONALLY. GET IMMEDIATE MEDICAL ATTENTION.

IF SWALLOWED: DO NOT INDUCE VOMITING. VOMITING WILL CAUSE FURTHER DAMAGE TO THE THROAT. DILUTE BY GIVING WATER. GIVE MILK OF MAGNESIA. KEEP WARM, QUIET. GET MEDICAL ATTENTION IMMEDIATELY.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATABILITY: AVOID CONTACT WITH:, EXCESSIVE HEAT, POWDERED METALS

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: COVER THE CONTAMINATED SURFACE WITH SODIUM BICARBONATE OR A SODA ASH/SLAKED LIME MIXTURE (50-50). MIX AND ADD WATER IF NECESSARY TO FORM A SLURRY. SCOOP UP SLURRY AND WASH SITE WITH SODA ASH SOLUTION.

LARGE SPILL: PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP IS COMPLETED. STOP SPILL AT SOURCE. DIKE TO PREVENT SPREADING. PUMP TO SALVAGE TANK. SHOVEL MATERIAL INTO CONTAINERS. THOROUGHLY SWEEP AREA OF SPILL TO CLEAN UP ANY RESIDUAL MATERIAL.

WASTE DISPOSAL METHOD:

SMALL SPILL: FLUSH DOWN DRAIN WITH LARGE AMOUNTS OF WATER IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: COLLECT AND ADD SLOWLY TO LARGE VOLUME OF AGITATED SOLUTION OF SODA ASH AND SLAKED LIME. ADD NEUTRALIZED SOLUTION TO EXCESS RUNNING WATER IN ACCORDANCE WITH APPLICABLE REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF OVEREXPOSURE HAS BEEN DETERMINED OR DOCUMENTED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW LEVEL OF OVEREXPOSURE (FROM KNOWN, SUSPECTED OR APPARENT ADVERSE EFFECTS).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, BUNA-N

EYE PROTECTION: CHEMICAL SPLASH GOGGLES AND FACE SHIELD (8" MIN.) IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

ADDITION TO WATER RELEASES HEAT WHICH CAN RESULT IN VIOLENT BOILING AND SPATTERING. ALWAYS ADD SLOWLY AND IN SMALL AMOUNTS. NEVER USE HOT WATER.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED.SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH ASHLAND OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

DEFINITIONS

THIS DEFINITION PAGE IS INTENDED FOR USE WITH MATERIAL SAFETY DATA SHEETS SUPPLIED BY THE ASHLAND CHEMICAL COMPANY. QUESTIONS CONCERNING THESE SHEETS SHOULD BE DIRECTED TO THE ENVIRONMENTAL AND OCCUPATIONAL SAFETY DEPARTMENT.

SECTION I
PRODUCT IDENTIFICATION

PRODUCT CLASS: GENERAL OR GENERIC IDENTIFICATION.

HAZARDOUS CLASSIFICATION: PRODUCT MEETS DOT CRITERIA FOR HAZARDS LISTED.

SECTION II
HAZARDOUS COMPONENTS

A HAZARDOUS INGREDIENT IS ONE WHICH MEETS ONE OR MORE OF THE FOLLOWING CRITERIA:

1. IT IS LISTED IN THE ANNUAL REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, OR IT IS KNOWN TO BE TOXIC WITHIN THE PARAMETERS OF THAT REGISTRY.

AND/OR

2. IT HAS A OSHA ESTABLISHED, 8-HOUR TIME-WEIGHTED AVERAGE PERMISSABLE EXPOSURE LIMIT (PEL) OR ACCEPTABLE CEILING (C), OR AN AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS' (ACGIH) THRESHOLD LIMIT VALUE, AND BY NATURE OF THE PRODUCT OR ITS KNOWN USE, IT IS LIKELY TO BECOME AIRBORNE.

AND/OR

3. IT CONTRIBUTES TO ONE OR MORE OF THE FOLLOWING HAZARDS OF THE PRODUCT:

   A. FLASHPOINT BELLOW 200 DEG F (CC), OR SUBJECT TO SPONTANEOUS HEATING OR DECOMPOSITION.

   B. CAUSES SKIN BURNS. (DOT)

   C. STRONG OXIDIZING AGENT. (DOT)

   D. SUBJECT TO HAZARDOUS POLYMERIZATION.

EACH INGREDIENT MEETING ONE OR MORE OF THE ABOVE CRITERIA IS LISTED IN SECTION II IF PRESENT AT A LEVEL AT LEAST GREATER THAN ONE PERCENT. INGREDIENTS WHICH ARE CLAIMED TO BE CARCINOGENS, TERATOGENS, MUTAGENS, OR CAUSATIVE AGENTS OF OTHER REPRODUCTIVE DISORDERS ARE LISTED IF KNOWN OR BELIEVED TO BE PRESENT, PROVIDED THAT THE DATA SUPPORTING SUCH CLAIMS IS CONSIDERED VALID.

EACH HAZARDOUS INGREDIENT IS LISTED BY CHEMICAL, GENERIC, OR PROPRIETARY NAME. ITS LEVEL IN THE PRODUCT IS EXPRESSED AS 1% OR LESS, 1-10%, 10-30%, 30-60%, OR GREATER THAN 60%, OR BY OTHER MEANS.

SECTION III
PHYSICAL DATA

INITIAL BOILING POINT: IF LIQUID AT 68 DEG F.

VAPOR PRESSURE: IF LIQUID AT 68 DEG F OR WHICH SUBLIMES.

VAPOR DENSITY: FOR VOLATILE PORTION OF PRODUCT.

SPECIFIC GRAVITY: IF SPECIFIC GRAVITY OF PRODUCT IS NOT KNOWN, INDICATED AS <1, =1, OR >1.

PERCENT VOLATILES: PERCENTAGE OF MATERIAL WITH INITIAL BOILING POINT BELOW 425 DEG F.

EVAPORATION RATE: INDICATED AS FASTER OR SLOWER THAN ETHYL ETHER, UNLESS STATED.

SECTION IV
PRODUCT IDENTIFICATION

FLASH POINT: CLOSED CUP.

LOWER EXPLOSION LIMIT: INDICATED FOR COMPONENT WITH LOWEST VALUE.

HAZARDOUS DECOMPOSITION PRODUCTS: KNOWN HAZARDOUS PRODUCTS RESULTING FROM HEATING, BURNING, ETC., OR REACTED RAW MATERIALS WHICH MAY ARISE THROUGH HEATING, BURNING, ETC.

SPECIAL FIREFIGHTING PROCEDURES: INDICATES EQUIPMENT TO PROTECT FIREMEN FROM TOXIC PROCEDURES OF COMBUSTION OR IF WATER IS NOT TO BE USED.

UNUSUAL FIRE AND EXPLOSION HAZARDS: HAZARDS NOT COVERED BY OTHER SECTIONS OF THIS REPORT ARE SHOWN HERE.

SECTION V
HEALTH HAZARD DATA

RECIPIENTS OF THIS DATA SHEET SHOULD CONSULT THE OSHA SAFETY AND HEALTH STANDARDS (29 CFR 1910), PARTICULARLY SUBPART G - OCCUPATIONAL HEALTH AND ENVIRONMENTAL CONTROL, AND SUBPART I - PERSONAL PROTECTIVE EQUIPMENT, FOR GENERAL GUIDANCE ON CONTROL OF POTENTIAL OCCUPATIONAL HEALTH HAZARDS.

PERMISSIBLE EXPOSURE LEVEL: OSHA ESTABLISHED PEL--IF NONE AVAILABLE, ADOPTED VALUE.

EFFECTS OF OVEREXPOSURE: GIVEN IN GENERAL TERMS; LOCAL AND SYSTEMIC EFFECTS TO THE EYES, SKIN, IF MATERIAL IS INHALED, UNLESS NOT APPLICABLE DUE TO PHYSICAL FORM OF PRODUCT.

SECTION VI
REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION RESULTING IN A LARGE RELEASE OF ENERGY.

STABILITY: CONDITIONS TO AVOID IF UNSTABLE UNDER NORMAL CIRCUMSTANCES.

INCOMPATIBILITY: MATERIALS TO AVOID.

SECTION VII
SPILL OR LEAK PROCEDURES

REASONABLE PRECAUTIONS TO BE TAKEN AND THE METHODS OF CLEAN-UP TO BE USED IN THE EVENT OF SPILLAGE OF THE PRODUCT. CONSULT FEDERAL, STATE AND LOCAL REGULATIONS FOR ACCEPTED PROCEDURES AND ANY REPORTING OR NOTIFICATION REQUIREMENTS.

SECTION VIII
PROTECTIVE EQUIPMENT TO BE USED

THIS SECTION INDICATES PROTECTIVE EQIUPMENT TO BE USED WHEN HANDLING THE PRODUCT.

SECTION IX
SPECIAL PRECAUTIONS OR OTHER COMMENTS

THIS SECTION IS TO COVER ANY RELEVANT POINTS NOT PREVIOUSLY MENTIONED.

ADDITIONAL COMMENTS

ASHLAND WISHES TO INFORM YOU THAT SERIOUS ACCIDENTS HAVE RESULTED FROM THE MISUSE OF "EMPTIED" CONTAINERS (DRUMS, 1 AND 5 GALLON PAILS, ETC.). REFER TO SECTIONS IV AND IX.

WE RECOMMEND THAT CONTAINERS BE EITHER PROFESSIONALLY RECONDITIONED FOR REUSE BY CERTIFIED FIRMS OR PROPERLY DISPOSED OF BY CERTIFIED FIRMS TO HELP REDUCE THE POSSIBILITY OF AN ACCIDENT. DISPOSAL OF CONTAINERS SHOULD BE IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS. "EMPTY" DRUMS SHOULD NOT BE GIVEN TO INDIVIDUALS.

LOCATION	Part Number	Amount	Unit Price	
PVC Spray	SVS-7011 ✓	5gal pails	Paule Chemical	16
Top Spray	STS-8022 ✓	5gal pails	Paule Chemical	
Top Spray	SVS-6105 ✓	5gal pails	Paule Chemical	9
Toning Dye	MTd-6354 ✓	5gal pails	Paule Chemical	10
Stain	MKS-6434 ✓	5gal pails	Paule Chemical	14
Stain	MKS-6433 ✓	5gal pails	Paule Chemical	4
Retarder	S-53	5gal pails	Waterlac	1
Bottom Spray	SP 7633 ✓	5gal pails	~~Paule Chemical~~ PRIME	1
Stripping dye	18175 ✓	5gal pails	Prime	1
Toning dye	SVS-9211 ✓	5gal pails	Paule Chemical	5
SPRAY	4005	5gal pails	Waterlac	3
Stain	MTd 6356 ✓	5gal pails	Paule	1

Chemicals to be disposed of in Central Store

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP. 1-28-83

Section I

MANUFACTURER'S NAME Prime Leather Finishes Company

STREET ADDRESS 205 S. Second Street CITY, STATE, AND ZIP CODE Milwaukee, WI 53204

EMERGENCY TELEPHONE NO. (414) 276-1668 (414) 367-2845 (414) 671-3319

PRODUCT CLASS Dye Solution

MANUFACTURERS CODE IDENTIFICATION 18175 Striping Dye

Section II - HAZARDOUS INGREDIENTS

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Ethanol, tetrahydrofurfural alcohol	96	1000 ppm

Section III - PHYSICAL DATA

BOILING POINT (°F.)	165-353	SPECIFIC GRAVITY (H_2O=1)	0.850
VAPOR PRESSURE (mm Hg.)	44 @20°C	PERCENT VOLATILE BY VOLUME (%)	96
VAPOR DENSITY (AIR= 1)	1.6	EVAPORATION RATE (n-butyl acetate = 1)	1.9
SOLUBILITY IN WATER	complete		
APPEARANCE AND ODOR	brown liquid; alcohol odor		

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Flammable liquid FLASH POINT 58°F T.C.C. LEL 3.3%

EXTINGUISHING MEDIA

Carbon dioxide, water spray, dry chemical, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

SPECIAL FIRE FIGHTING PROCEDURES

Respirators should be worn. Use water spray to cool equipment and disperse vapors.

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 1000 ppm

EFFECTS OF OVEREXPOSURE

High concentrations of vapor may be intoxicating and irritating to mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

Eye contact: Flush with water for 15 minutes and get medical attention.

Skin contact: Wash with water.

Inhalation: Remove to fresh air.

Ingestion: Call physician at once. May contain gasoline and some methanol

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID

INCOMPATABILITY (*Materials to avoid*)

oxidants

HAZARDOUS DECOMPOSITION PRODUCTS

combustion produces carbon dioxide and carbon monoxide.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Pump free liquid to suitable containers. Flush remainder with water.

WASTE DISPOSAL METHOD

Incineration if permitted.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Air-supplied mask should be worn in enclosed areas or when exposure exceeds the time-weighted TLV (above).

VENTILATION

Must be sufficient to maintain exposure below the TLV. Local exhaust (except spray booth) should be at floor level if used.

PROTECTIVE GLOVES Recommended

EYE PROTECTION goggles, face shield

OTHER PROTECTIVE EQUIPMENT eye wash

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep container closed and away from heat, sparks, flame.

OTHER PRECAUTIONS

Empty container may contain flammable vapors or residue.

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS AND RELATED MATERIALS
(Similar to Form OSHA-20)

PAULE CHEMICAL
CORWIN STREET, PEABODY, MASSACHUSETTS 01960

DATE OF PREP. 5/23/83

Section I

MANUFACTURER'S NAME **PAULE CHEMICAL**

ADDRESS: **CORWIN STREET**
PEABODY, MA 01960

EMERGENCY TELEPHONE NO. **617-532-0520**

MANUFACTURER'S CODE IDENTIFICATION SBS-7011

PRODUCT CLASS Toning Dye

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	% [1]	TLV PPM	LEL	V.P. [2]	INGREDIENT	% [1]	TLV PPM	LEL	V.P. [2]
ACETONE		750	2.6	186/20	DIMETHYLFORMAMIDE		10SKIN	2.2	2.7/20
MEK	77	200	1.8	70/20	ALIPHATIC HYDROCARBONS		50	1.1	22/20
MIBK		50	1.4	16/20	MINERAL SPIRITS		100	1.0	2/20
CYCLOHEXANONE		25SKIN	1.1	2/20	TOLUENE		100SKIN	1.0	22/20
DIACETONE ALCOHOL		50	1.8	1/20	VM&P NAPHTHA		300	1.0	15/20
ETHYL ACETATE		400	2.2	100/20	AROMATIC (BP315-345F)		50	.7	3/15.6
ISOBUTYL ACETATE	2	150	1.27	12.5/20	XYLENE	2	100	1.0	6/20
AMYL ACETATE		100	1.19	4/20	TURPENTINE		100	.8	5/20
CELLOSOLVE ACETATE	7	50SKIN	1.8	2/20	AMMONIA		25	16.	1 ATM
METHANOL	1	200SKIN	6.7	97/20	DIMETHYL AMINE		10	2.2	1.7 ATM
ETHANOL	1	1000	4.3	44/20	MORPHOLINE		20SKIN	.9	7 ATM
ISOPROPANOL		400SKIN	2.0	33/20	LEAD		.05Mg/M³		
ISOBUTANOL		50	1.7	9/20	CHROMIUM		.05Mg/M³		
NORMAL BUTANOL		50CEIL.	1.73	5.5/20	NONE				
CELLOSOLVE		50SKIN	1.8	4/20					
METHYL CELLOSOLVE		25SKIN	2.5	6/20					
ISOPROPYL CELLOSOLVE		25SKIN	1.5	2.3/20					
BUTYL CELLOSOLVE	5	25SKIN	1.1	1/20	[1]Approximate percent ± 5.0				
TETRAHYDROFURAN		200	2.0	142/20	[2]MM HG/Degree Centigrade				

Section III — PHYSICAL DATA

BOILING RANGE 175°F

VAPOR DENSITY [X] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE [ ] FASTER [X] SLOWER THAN ETHER

APPROXIMATE PERCENT VOLATILE BY VOLUME 95%

WEIGHT PER GALLON 6.97

Section IV — FIRE AND EXPLOSION HAZARD

DOT CATEGORY

FLASH POINT 20°F

LEL

EXTINGUISHING MEDIA **Use extinguishing agents suitable for Class B fires. These include Carbon Dioxide, Dry Chemical, Foam, and Halon Agents.**

UNUSUAL FIRE AND EXPLOSION HAZARDS **Flammable or Combustible liquid. May float on water while burning. Vapors may ignite or explode if they are allowed to accumulate in areas where an ignition source is present. Closed containers may explode if exposed to extreme heat, such as occurs in a fire.**

SPECIAL FIRE FIGHTING PROCEDURES **Water may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.**

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE **See Section II**

EFFECTS OF OVEREXPOSURE **Breathing of vapors may cause headache, nausea, dizziness, vomiting and, in extreme cases, unconsciousness. Vapor may cause upper respiratory irritations. Liquid and vapors may cause eye and skin irritation. Liquid may cause defatting of skin and dermatitis. *If lead is noted in Section II, there is a possibility of chronic lead poisoning if sprayed with inadequate ventilation or ingested.**

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT: Wash with soapy water. Rinse thoroughly.

EYE CONTACT: Flush with lots of water for 15 minutes. Consult a physician.

INHALATION: Remove victim to fresh air. Give mouth-to-mouth breathing if person has stopped breathing. See a physician.

INGESTION: Seek medical advice. Do not induce vomiting unless doctor says to.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID:

INCOMPATABILITY *(Materials to avoid)* **Strong oxidizing agents or reducing agents.**

HAZARDOUS DECOMPOSITION PRODUCTS **Thermal decomp. may yield; oxides of carbon, oxides of nitrogen, solvent vapors.**

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID **Heat, sparks, open flames, other ignition sources.**

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **SMALL SPILL: Absorb liquid on paper, vermiculite or other absorbent material and transfer to hood or other well-ventilated, isolated place. LARGE SPILL: Eliminate all ignition sources (flares, flames, pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill source, dike area of spill to prevent spreading, transfer liquid to holding area, salvage tank, drums or other container. Remaining material may be taken up on sand, clay, earth, or other inert, non-combustible absorbent.** WASTE DISPOSAL SECTION IX BELOW.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION **In restricted ventilation areas use NIOSH approved chemical cartridge respirators for vapors, or combination chemical cartridge and spray mist filters for spraying mists. In confined areas or in case of very high concentrations, as from a spill indoors, use NIOSH approved air-supplied respirators or self contained breathing apparatus.**

VENTILATION **Provide general dilution ventilation or local exhaust as needed to keep vapor concentrations of ingredients in Section II below the TLVs. Local exhaust is essential for spraying operations. If "effects of overexposure" listed in Section V are evident, ventilation may be inadequate.**

PROTECTIVE GLOVES **Use of solvent-resistant gloves is strongly recommended.**

EYE PROTECTION **Use of goggles to prevent eye contact from splash is strongly recommended.**

OTHER PROTECTIVE EQUIPMENT **Safety shower and eyewash recommended.**

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING **Keep from heat, sparks, and open flames. Prohibit smoking in areas where this is handled. Avoid unnecessary, excessive and prolonged personal contact. Use only with adequate ventilation. *If lead poisoning is suspected, a physician should be consulted and a blood lead test taken. WASTE DISPOSAL: Small spill: Allow volatile portion to evaporate in hood or other well ventilated, isolated area. Allow sufficient time for vapors to completely clear. Dispose of remaining material in accord with local, state and federal regulations. Large spill: Destroy by liquid incineration under safe and controlled conditions. It is probably best to contact a licensed hazardous waste disposal company to handle incineration. Material collected on absorbent material may be deposited in a posted toxic substances landfill in accordance with local, state and federal regulations.**

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS AND RELATED MATERIALS
(Similar to Form OSHA-20)

PAULE CHEMICAL
CORWIN STREET, PEABODY, MASSACHUSETTS 01960

DATE OF PREP. 5/24/83

Section I

MANUFACTURER'S NAME **PAULE CHEMICAL**

ADDRESS: **CORWIN STREET**
PEABODY, MA 01960

EMERGENCY TELEPHONE NO. **617-532-0520**

MANUFACTURER'S CODE IDENTIFICATION MKS-6434

PRODUCT CLASS Spray

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	%[1]	TLV PPM	LEL	V.P.[2]	INGREDIENT	%[1]	TLV PPM	LEL	V.P.[2]
ACETONE		750	2.6	186/20	DIMETHYLFORMAMIDE		10SKIN	2.2	2.7/20
MEK	76	200	1.8	70/20	ALIPHATIC HYDROCARBONS		50	1.1	22/20
MIBK		50	1.4	16/20	MINERAL SPIRITS		100	1.0	2/20
CYCLOHEXANONE		25SKIN	1.1	2/20	TOLUENE		100SKIN	1.0	22/20
DIACETONE ALCOHOL		50	1.8	1/20	VM&P NAPHTHA		300	1.0	15/20
ETHYL ACETATE		400	2.2	100/20	AROMATIC (BP315-345F)		50	.7	3/15.6
ISOBUTYL ACETATE	5	150	1.27	12.5/20	XYLENE		100	1.0	6/20
AMYL ACETATE		100	1.19	4/20	TURPENTINE		100	.8	5/20
CELLOSOLVE ACETATE	14	50SKIN	1.8	2/20	AMMONIA		25	16.	1 ATM
METHANOL		200SKIN	6.7	97/20	DIMETHYL AMINE		10	2.2	1.7 ATM
ETHANOL		1000	4.3	44/20	MORPHOLINE		20SKIN	.9	7 ATM
ISOPROPANOL		400SKIN	2.0	33/20	LEAD		.05Mg/M³		
ISOBUTANOL		50	1.7	9/20	CHROMIUM		.05Mg/M³		
NORMAL BUTANOL		50CEIL.	1.73	5.5/20	NONE				
CELLOSOLVE		50SKIN	1.8	4/20					
METHYL CELLOSOLVE		25SKIN	2.5	6/20					
ISOPROPYL CELLOSOLVE		25SKIN	1.5	2.3/20					
BUTYL CELLOSOLVE		25SKIN	1.1	1/20	[1]Approximate percent ± 5.0				
TETRAHYDROFURAN		200	2.0	142/20	[2]MM HG/Degree Centigrade				

Section III — PHYSICAL DATA

BOILING RANGE 175°F

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

APPROXIMATE PERCENT VOLATILE BY VOLUME 93%

WEIGHT PER GALLON 7.10

Section IV — FIRE AND EXPLOSION HAZARD

DOT CATEGORY

FLASH POINT 20°F

LEL

EXTINGUISHING MEDIA **Use extinguishing agents suitable for Class B fires. These include Carbon Dioxide, Dry Chemical, Foam, and Halon Agents.**

UNUSUAL FIRE AND EXPLOSION HAZARDS **Flammable or Combustible liquid. May float on water while burning. Vapors may ignite or explode if they are allowed to accumulate in areas where an ignition source is present. Closed containers may explode if exposed to extreme heat, such as occurs in a fire.**

SPECIAL FIRE FIGHTING PROCEDURES **Water may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.**

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE **See Section II**

EFFECTS OF OVEREXPOSURE **Breathing of vapors may cause headache, nausea, dizziness, vomiting and, in extreme cases, unconsciousness. Vapor may cause upper respiratory irritations. Liquid and vapors may cause eye and skin irritation. Liquid may cause defatting of skin and dermatitis. *If lead is noted in Section II, there is a possibility of chronic lead poisoning if sprayed with inadequate ventilation or ingested.**

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT: Wash with soapy water. Rinse thoroughly.

EYE CONTACT: Flush with lots of water for 15 minutes. Consult a physician.

INHALATION: Remove victim to fresh air. Give mouth-to-mouth breathing if person has stopped breathing. See a physician.

INGESTION: Seek medical advice. Do not induce vomiting unless doctor says to.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID:

INCOMPATABILITY *(Materials to avoid)* **Strong oxidizing agents or reducing agents.**

HAZARDOUS DECOMPOSITION PRODUCTS **Thermal decomp. may yield; oxides of carbon, oxides of nitrogen, solvent vapors.**

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID **Heat, sparks, open flames, other ignition sources.**

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **SMALL SPILL: Absorb liquid on paper, vermiculite or other absorbent material and transfer to hood or other well-ventilated, isolated place. LARGE SPILL: Eliminate all ignition sources (flares, flames, pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill source, dike area of spill to prevent spreading, transfer liquid to holding area, salvage tank, drums or other container. Remaining material may be taken up on sand, clay, earth, or other inert, non-combustible absorbent.** WASTE DISPOSAL SECTION IX BELOW.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION **In restricted ventilation areas use NIOSH approved chemical cartridge respirators for vapors, or combination chemical cartridge and spray mist filters for spraying mists. In confined areas or in case of very high concentrations, as from a spill indoors, use NIOSH approved air-supplied respirators or self contained breathing apparatus.**

VENTILATION **Provide general dilution ventilation or local exhaust as needed to keep vapor concentrations of ingredients in Section II below the TLVs. Local exhaust is essential for spraying operations. If "effects of overexposure" listed in Section V are evident, ventilation may be inadequate.**

PROTECTIVE GLOVES **Use of solvent-resistant gloves is strongly recommended.**

EYE PROTECTION **Use of goggles to prevent eye contact from splash is strongly recommended.**

OTHER PROTECTIVE EQUIPMENT **Safety shower and eyewash recommended.**

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING **Keep from heat, sparks, and open flames. Prohibit smoking in areas where this is handled. Avoid unnecessary, excessive and prolonged personal contact. Use only with adequate ventilation. *If lead poisoning is suspected, a physician should be consulted and a blood lead test taken. WASTE DISPOSAL: Small spill: Allow volatile portion to evaporate in hood or other well ventilated, isolated area. Allow sufficient time for vapors to completely clear. Dispose of remaining material in accord with local, state and federal regulations. Large spill: Destroy by liquid incineration under safe and controlled conditions. It is probably best to contact a licensed hazardous waste disposal company to handle incineration. Material collected on absorbent material may be deposited in a posted toxic substances landfill in accordance with local, state and federal regulations.**

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS AND RELATED MATERIALS
(Similar to Form OSHA-20)

PAULE CHEMICAL
CORWIN STREET, PEABODY, MASSACHUSETTS 01960

DATE OF PREP. 5/24/83

Section I

MANUFACTURER'S NAME **PAULE CHEMICAL**

ADDRESS: **CORWIN STREET**
PEABODY, MA 01960

EMERGENCY TELEPHONE NO. **617-532-0520**

MANUFACTURER'S CODE IDENTIFICATION MKS-6433

PRODUCT CLASS Spray

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	%[1]	TLV PPM	LEL	V.P.[2]	INGREDIENT	%[1]	TLV PPM	LEL	V.P.[2]
ACETONE		750	2.6	186/20	DIMETHYLFORMAMIDE		10SKIN	2.2	2.7/20
MEK	76	200	1.8	70/20	ALIPHATIC HYDROCARBONS		50	1.1	22/20
MIBK		50	1.4	16/20	MINERAL SPIRITS		100	1.0	2/20
CYCLOHEXANONE		25SKIN	1.1	2/20	TOLUENE		100SKIN	1.0	22/20
DIACETONE ALCOHOL		50	1.8	1/20	VM&P NAPHTHA		300	1.0	15/20
ETHYL ACETATE		400	2.2	100/20	AROMATIC (BP315-345F)		50	.7	3/15.6
ISOBUTYL ACETATE	5	150	1.27	12.5/20	XYLENE		100	1.0	6/20
AMYL ACETATE		100	1.19	4/20	TURPENTINE		100	.8	5/20
CELLOSOLVE ACETATE	14	50SKIN	1.8	2/20	AMMONIA		25	16.	1 ATM
METHANOL		200SKIN	6.7	97/20	DIMETHYL AMINE		10	2.2	1.7 ATM
ETHANOL		1000	4.3	44/20	MORPHOLINE		20SKIN	.9	7 ATM
ISOPROPANOL		400SKIN	2.0	33/20	LEAD		.05Mg/M³		
ISOBUTANOL		50	1.7	9/20	CHROMIUM		.05Mg/M³		
NORMAL BUTANOL		50CEIL.	1.73	5.5/20	NONE				
CELLOSOLVE		50SKIN	1.8	.4/20					
METHYL CELLOSOLVE		25SKIN	2.5	6/20					
ISOPROPYL CELLOSOLVE		25SKIN	1.5	2.3/20					
BUTYL CELLOSOLVE		25SKIN	1.1	1/20	[1]Approximate percent ± 5.0				
TETRAHYDROFURAN		200	2.0	142/20	[2]MM HG/Degree Centigrade				

Section III — PHYSICAL DATA

BOILING RANGE 175°F

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

APPROXIMATE PERCENT VOLATILE BY VOLUME 93%

WEIGHT PER GALLON 7.10

Section IV — FIRE AND EXPLOSION HAZARD

DOT CATEGORY

FLASH POINT 20°F

LEL

EXTINGUISHING MEDIA **Use extinguishing agents suitable for Class B fires. These include Carbon Dioxide, Dry Chemical, Foam, and Halon Agents.**

UNUSUAL FIRE AND EXPLOSION HAZARDS **Flammable or Combustible liquid. May float on water while burning. Vapors may ignite or explode if they are allowed to accumulate in areas where an ignition source is present. Closed containers may explode if exposed to extreme heat, such as occurs in a fire.**

SPECIAL FIRE FIGHTING PROCEDURES **Water may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.**

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE **See Section II**

EFFECTS OF OVEREXPOSURE **Breathing of vapors may cause headache, nausea, dizziness, vomiting and, in extreme cases, unconsciousness. Vapor may cause upper respiratory irritations. Liquid and vapors may cause eye and skin irritation. Liquid may cause defatting of skin and dermatitis. *If lead is noted in Section II, there is a possibility of chronic lead poisoning if sprayed with inadequate ventilation or ingested.**

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT: Wash with soapy water. Rinse thoroughly.

EYE CONTACT: Flush with lots of water for 15 minutes. Consult a physician.

INHALATION: Remove victim to fresh air. Give mouth-to-mouth breathing if person has stopped breathing. See a physician.

INGESTION: Seek medical advice. Do not induce vomiting unless doctor says to.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID:

INCOMPATABILITY *(Materials to avoid)* **Strong oxidizing agents or reducing agents.**

HAZARDOUS DECOMPOSITION PRODUCTS **Thermal decomp. may yield; oxides of carbon, oxides of nitrogen, solvent vapors.**

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID **Heat, sparks, open flames, other ignition sources.**

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **SMALL SPILL: Absorb liquid on paper, vermiculite or other absorbent material and transfer to hood or other well-ventilated, isolated place. LARGE SPILL: Eliminate all ignition sources (flares, flames, pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill source, dike area of spill to prevent spreading, transfer liquid to holding area, salvage tank, drums or other container. Remaining material may be taken up on sand, clay, earth, or other inert, non-combustible absorbent.** WASTE DISPOSAL SECTION IX BELOW.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION **In restricted ventilation areas use NIOSH approved chemical cartridge respirators for vapors, or combination chemical cartridge and spray mist filters for spraying mists. In confined areas or in case of very high concentrations, as from a spill indoors, use NIOSH approved air-supplied respirators or self contained breathing apparatus.**

VENTILATION **Provide general dilution ventilation or local exhaust as needed to keep vapor concentrations of ingredients in Section II below the TLVs. Local exhaust is essential for spraying operations. If "effects of overexposure" listed in Section V are evident, ventilation may be inadequate.**

PROTECTIVE GLOVES **Use of solvent-resistant gloves is strongly recommended.**

EYE PROTECTION **Use of goggles to prevent eye contact from splash is strongly recommended.**

OTHER PROTECTIVE EQUIPMENT **Safety shower and eyewash recommended.**

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING **Keep from heat, sparks, and open flames. Prohibit smoking in areas where this is handled. Avoid unnecessary, excessive and prolonged personal contact. Use only with adequate ventilation. *If lead poisoning is suspected, a physician should be consulted and a blood lead test taken. WASTE DISPOSAL: Small spill: Allow volatile portion to evaporate in hood or other well ventilated, isolated area. Allow sufficient time for vapors to completely clear. Dispose of remaining material in accord with local, state and federal regulations. Large spill: Destroy by liquid incineration under safe and controlled conditions. It is probably best to contact a licensed hazardous waste disposal company to handle incineration. Material collected on absorbent material may be deposited in a posted toxic substances landfill in accordance with local, state and federal regulations.**

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS AND RELATED MATERIALS
(Similar to Form OSHA-20)

PAULE CHEMICAL
CORWIN STREET, PEABODY, MASSACHUSETTS 01960

DATE OF PREP. 2/18/83

Section I

MANUFACTURER'S NAME **PAULE CHEMICAL**

ADDRESS: **CORWIN STREET**
PEABODY, MA 01960

EMERGENCY TELEPHONE NO. **617-532-0520**

MANUFACTURER'S CODE IDENTIFICATION SVS-9211

PRODUCT CLASS Spray

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	%[1]	TLV PPM	LEL	V.P.[2]	INGREDIENT	%[1]	TLV PPM	LEL	V.P.[2]
ACETONE	99	750	2.6	186/20	DIMETHYLFORMAMIDE		10SKIN	2.2	2.7/20
MEK		200	1.8	70/20	ALIPHATIC HYDROCARBONS		50	1.1	22/20
MIBK		50	1.4	16/20	MINERAL SPIRITS		100	1.0	2/20
CYCLOHEXANONE		25SKIN	1.1	2/20	TOLUENE		100SKIN	1.0	22/20
DIACETONE ALCOHOL		50	1.8	1/20	VM&P NAPHTHA		300	1.0	15/20
ETHYL ACETATE		400	2.2	100/20	AROMATIC (BP315-345F)		50	.7	3/15.6
ISOBUTYL ACETATE		150	1.27	12.5/20	XYLENE		100	1.0	6/20
AMYL ACETATE		100	1.19	4/20	TURPENTINE		100	.8	5/20
CELLOSOLVE ACETATE		50SKIN	1.8	2/20	AMMONIA		25	16.	1 ATM
METHANOL		200SKIN	6.7	97/20	DIMETHYL AMINE		10	2.2	1.7 ATM
ETHANOL		1000	4.3	44/20	MORPHOLINE		20SKIN	.9	7 ATM
ISOPROPANOL		400SKIN	2.0	33/20	LEAD		.05Mg/M³		
ISOBUTANOL		50	1.7	9/20	CHROMIUM		.05Mg/M³		
NORMAL BUTANOL		50CEIL.	1.73	5.5/20	NONE				
CELLOSOLVE		50SKIN	1.8	4/20					
METHYL CELLOSOLVE		25SKIN	2.5	6/20					
ISOPROPYL CELLOSOLVE		25SKIN	1.5	2.3/20					
BUTYL CELLOSOLVE		25SKIN	1.1	1/20	[1]Approximate percent ± 5.0				
TETRAHYDROFURAN		200	2.0	142/20	[2]MM HG/Degree Centigrade				

Section III — PHYSICAL DATA

BOILING RANGE 133°F

VAPOR DENSITY [X] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE [ ] FASTER [X] SLOWER THAN ETHER

APPROXIMATE PERCENT VOLATILE BY VOLUME 99%

WEIGHT PER GALLON 6.69

Section IV — FIRE AND EXPLOSION HAZARD

DOT CATEGORY

FLASH POINT 0°F

LEL

EXTINGUISHING MEDIA **Use extinguishing agents suitable for Class B fires. These include Carbon Dioxide, Dry Chemical, Foam, and Halon Agents.**

UNUSUAL FIRE AND EXPLOSION HAZARDS **Flammable or Combustible liquid. May float on water while burning. Vapors may ignite or explode if they are allowed to accumulate in areas where an ignition source is present. Closed containers may explode if exposed to extreme heat, such as occurs in a fire.**

SPECIAL FIRE FIGHTING PROCEDURES **Water may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.**

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE **See Section II**

EFFECTS OF OVEREXPOSURE **Breathing of vapors may cause headache, nausea, dizziness, vomiting and, in extreme cases, unconsciousness. Vapor may cause upper respiratory irritations. Liquid and vapors may cause eye and skin irritation. Liquid may cause defatting of skin and dermatitis. *If lead is noted in Section II, there is a possibility of chronic lead poisoning if sprayed with inadequate ventilation or ingested.**

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT: Wash with soapy water. Rinse thoroughly.

EYE CONTACT: Flush with lots of water for 15 minutes. Consult a physician.

INHALATION: Remove victim to fresh air. Give mouth-to-mouth breathing if person has stopped breathing. See a physician.

INGESTION: Seek medical advice. Do not induce vomiting unless doctor says to.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID:

INCOMPATABILITY *(Materials to avoid)* **Strong oxidizing agents or reducing agents.**

HAZARDOUS DECOMPOSITION PRODUCTS **Thermal decomp. may yield; oxides of carbon, oxides of nitrogen, solvent vapors.**

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID **Heat, sparks, open flames, other ignition sources.**

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **SMALL SPILL: Absorb liquid on paper, vermiculite or other absorbent material and transfer to hood or other well-ventilated, isolated place. LARGE SPILL: Eliminate all ignition sources (flares, flames, pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill source, dike area of spill to prevent spreading, transfer liquid to holding area, salvage tank, drums or other container. Remaining material may be taken up on sand, clay, earth, or other inert, non-combustible absorbent.** WASTE DISPOSAL SECTION IX BELOW.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION **In restricted ventilation areas use NIOSH approved chemical cartridge respirators for vapors, or combination chemical cartridge and spray mist filters for spraying mists. In confined areas or in case of very high concentrations, as from a spill indoors, use NIOSH approved air-supplied respirators or self contained breathing apparatus.**

VENTILATION **Provide general dilution ventilation or local exhaust as needed to keep vapor concentrations of ingredients in Section II below the TLVs. Local exhaust is essential for spraying operations. If "effects of overexposure" listed in Section V are evident, ventilation may be inadequate.**

PROTECTIVE GLOVES **Use of solvent-resistant gloves is strongly recommended.**

EYE PROTECTION **Use of goggles to prevent eye contact from splash is strongly recommended.**

OTHER PROTECTIVE EQUIPMENT **Safety shower and eyewash recommended.**

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING **Keep from heat, sparks, and open flames. Prohibit smoking in areas where this is handled. Avoid unnecessary, excessive and prolonged personal contact. Use only with adequate ventilation. *If lead poisoning is suspected, a physician should be consulted and a blood lead test taken. WASTE DISPOSAL: Small spill: Allow volatile portion to evaporate in hood or other well ventilated, isolated area. Allow sufficient time for vapors to completely clear. Dispose of remaining material in accord with local, state and federal regulations. Large spill: Destroy by liquid incineration under safe and controlled conditions. It is probably best to contact a licensed hazardous waste disposal company to handle incineration. Material collected on absorbent material may be deposited in a posted toxic substances landfill in accordance with local, state and federal regulations.**

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS AND RELATED MATERIALS
(Similar to Form OSHA-20)

PAULE CHEMICAL
CORWIN STREET, PEABODY, MASSACHUSETTS 01960

DATE OF PREP.
2/18/83

Section I

MANUFACTURER'S NAME **PAULE CHEMICAL**

ADDRESS: **CORWIN STREET**
PEABODY, MA 01960

EMERGENCY TELEPHONE NO. **617-532-0520**

MANUFACTURER'S CODE IDENTIFICATION
SVS-6105

PRODUCT CLASS
Spray

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	% [1]	TLV PPM	LEL	V.P. [2]	INGREDIENT	% [1]	TLV PPM	LEL	V.P. [2]
ACETONE		750	2.6	186/20	DIMETHYLFORMAMIDE		10SKIN	2.2	2.7/20
MEK	24	200	1.8	70/20	ALIPHATIC HYDROCARBONS		50	1.1	22/20
MIBK	32	50	1.4	16/20	MINERAL SPIRITS		100	1.0	2/20
CYCLOHEXANONE		25SKIN	1.1	2/20	TOLUENE	40	100SKIN	1.0	22/20
DIACETONE ALCOHOL		50	1.8	1/20	VM&P NAPHTHA		300	1.0	15/20
ETHYL ACETATE		400	2.2	100/20	AROMATIC (BP315-345F)		50	.7	3/15.6
ISOBUTYL ACETATE		150	1.27	12.5/20	XYLENE		100	1.0	6/20
AMYL ACETATE		100	1.19	4/20	TURPENTINE		100	.8	5/20
CELLOSOLVE ACETATE		50SKIN	1.8	2/20	AMMONIA		25	16.	1 ATM
METHANOL		200SKIN	6.7	97/20	DIMETHYL AMINE		10	2.2	1.7 ATM
ETHANOL		1000	4.3	44/20	MORPHOLINE		20SKIN	.9	7 ATM
ISOPROPANOL		400SKIN	2.0	33/20	LEAD		.05Mg/M³		
ISOBUTANOL		50	1.7	9/20	CHROMIUM		.05Mg/M³		
NORMAL BUTANOL		50CEIL.	1.73	5.5/20	NONE				
CELLOSOLVE		50SKIN	1.8	4/20					
METHYL CELLOSOLVE		25SKIN	2.5	6/20					
ISOPROPYL CELLOSOLVE		25SKIN	1.5	2.3/20					
BUTYL CELLOSOLVE		25SKIN	1.1	1/20	[1]Approximate percent ± 5.0				
TETRAHYDROFURAN		200	2.0	142/20	[2]MM HG/Degree Centigrade				

Section III — PHYSICAL DATA

BOILING RANGE 175°F

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

APPROXIMATE PERCENT VOLATILE BY VOLUME 96%

WEIGHT PER GALLON 6.96

Section IV — FIRE AND EXPLOSION HAZARD

DOT CATEGORY

FLASH POINT 20°F

LEL

EXTINGUISHING MEDIA **Use extinguishing agents suitable for Class B fires. These include Carbon Dioxide, Dry Chemical, Foam, and Halon Agents.**

UNUSUAL FIRE AND EXPLOSION HAZARDS **Flammable or Combustible liquid. May float on water while burning. Vapors may ignite or explode if they are allowed to accumulate in areas where an ignition source is present. Closed containers may explode if exposed to extreme heat, such as occurs in a fire.**

SPECIAL FIRE FIGHTING PROCEDURES **Water may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.**

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Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE **See Section II**

EFFECTS OF OVEREXPOSURE **Breathing of vapors may cause headache, nausea, dizziness, vomiting and, in extreme cases, unconsciousness. Vapor may cause upper respiratory irritations. Liquid and vapors may cause eye and skin irritation. Liquid may cause defatting of skin and dermatitis. *If lead is noted in Section II, there is a possibility of chronic lead poisoning if sprayed with inadequate ventilation or ingested.**

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT: Wash with soapy water. Rinse thoroughly.

EYE CONTACT: Flush with lots of water for 15 minutes. Consult a physician.

INHALATION: Remove victim to fresh air. Give mouth-to-mouth breathing if person has stopped breathing. See a physician.

INGESTION: Seek medical advice. Do not induce vomiting unless doctor says to.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID:

INCOMPATABILITY *(Materials to avoid)* **Strong oxidizing agents or reducing agents.**

HAZARDOUS DECOMPOSITION PRODUCTS **Thermal decomp. may yield; oxides of carbon, oxides of nitrogen, solvent vapors.**

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID **Heat, sparks, open flames, other ignition sources.**

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **SMALL SPILL: Absorb liquid on paper, vermiculite or other absorbent material and transfer to hood or other well-ventilated, isolated place. LARGE SPILL: Eliminate all ignition sources (flares, flames, pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill source, dike area of spill to prevent spreading, transfer liquid to holding area, salvage tank, drums or other container. Remaining material may be taken up on sand, clay, earth, or other inert, non-combustible absorbent.** WASTE DISPOSAL SECTION IX BELOW.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION **In restricted ventilation areas use NIOSH approved chemical cartridge respirators for vapors, or combination chemical cartridge and spray mist filters for spraying mists. In confined areas or in case of very high concentrations, as from a spill indoors, use NIOSH approved air-supplied respirators or self contained breathing apparatus.**

VENTILATION **Provide general dilution ventilation or local exhaust as needed to keep vapor concentrations of ingredients in Section II below the TLVs. Local exhaust is essential for spraying operations. If "effects of overexposure" listed in Section V are evident, ventilation may be inadequate.**

PROTECTIVE GLOVES **Use of solvent-resistant gloves is strongly recommended.**

EYE PROTECTION **Use of goggles to prevent eye contact from splash is strongly recommended.**

OTHER PROTECTIVE EQUIPMENT **Safety shower and eyewash recommended.**

Section IX — SPECIAL PRECAUTIONS

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MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS AND RELATED MATERIALS
(Similar to Form OSHA-20)

PAULE CHEMICAL
CORWIN STREET, PEABODY, MASSACHUSETTS 01960

DATE OF PREP. 2/18/83

Section I

MANUFACTURER'S NAME **PAULE CHEMICAL**

ADDRESS: **CORWIN STREET**
PEABODY, MA 01960

EMERGENCY TELEPHONE NO. **617-532-0520**

MANUFACTURER'S CODE IDENTIFICATION STS-8022

PRODUCT CLASS Spray

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	%[1]	TLV PPM	LEL	V.P.[2]	INGREDIENT	%[1]	TLV PPM	LEL	V.P.[2]
ACETONE		750	2.6	186/20	DIMETHYLFORMAMIDE		10SKIN	2.2	2.7/20
MEK	23	200	1.8	70/20	ALIPHATIC HYDROCARBONS		50	1.1	22/20
MIBK	32	50	1.4	16/20	MINERAL SPIRITS		100	1.0	2/20
CYCLOHEXANONE		25SKIN	1.1	2/20	TOLUENE	40	100SKIN	1.0	22/20
DIACETONE ALCOHOL		50	1.8	1/20	VM&P NAPHTHA		300	1.0	15/20
ETHYL ACETATE		400	2.2	100/20	AROMATIC (BP315-345F)		50	.7	3/15.6
ISOBUTYL ACETATE		150	1.27	12.5/20	XYLENE		100	1.0	6/20
AMYL ACETATE		100	1.19	4/20	TURPENTINE		100	.8	5/20
CELLOSOLVE ACETATE		50SKIN	1.8	2/20	AMMONIA		25	16.	1 ATM
METHANOL		200SKIN	6.7	97/20	DIMETHYL AMINE		10	2.2	1.7 ATM
ETHANOL		1000	4.3	44/20	MORPHOLINE		20SKIN	.9	7 ATM
ISOPROPANOL		400SKIN	2.0	33/20	LEAD		.05Mg/M³		
ISOBUTANOL		50	1.7	9/20	CHROMIUM		.05Mg/M³		
NORMAL BUTANOL		50CEIL.	1.73	5.5/20	NONE				
CELLOSOLVE		50SKIN	1.8	4/20					
METHYL CELLOSOLVE		25SKIN	2.5	6/20					
ISOPROPYL CELLOSOLVE		25SKIN	1.5	2.3/20					
BUTYL CELLOSOLVE		25SKIN	1.1	1/20	[1]Approximate percent ± 5.0				
TETRAHYDROFURAN		200	2.0	142/20	[2]MM HG/Degree Centigrade				

Section III — PHYSICAL DATA

BOILING RANGE 175°F

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

APPROXIMATE PERCENT VOLATILE BY VOLUME 95%

WEIGHT PER GALLON 6.94

Section IV — FIRE AND EXPLOSION HAZARD

DOT CATEGORY

FLASH POINT 20°F

LEL

EXTINGUISHING MEDIA **Use extinguishing agents suitable for Class B fires. These include Carbon Dioxide, Dry Chemical, Foam, and Halon Agents.**

UNUSUAL FIRE AND EXPLOSION HAZARDS **Flammable or Combustible liquid. May float on water while burning. Vapors may ignite or explode if they are allowed to accumulate in areas where an ignition source is present. Closed containers may explode if exposed to extreme heat, such as occurs in a fire.**

SPECIAL FIRE FIGHTING PROCEDURES **Water may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.**

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE **See Section II**

EFFECTS OF OVEREXPOSURE **Breathing of vapors may cause headache, nausea, dizziness, vomiting and, in extreme cases, unconsciousness. Vapor may cause upper respiratory irritations. Liquid and vapors may cause eye and skin irritation. Liquid may cause defatting of skin and dermatitis. *If lead is noted in Section II, there is a possibility of chronic lead poisoning if sprayed with inadequate ventilation or ingested.**

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT: Wash with soapy water. Rinse thoroughly.

EYE CONTACT: Flush with lots of water for 15 minutes. Consult a physician.

INHALATION: Remove victim to fresh air. Give mouth-to-mouth breathing if person has stopped breathing. See a physician.

INGESTION: Seek medical advice. Do not induce vomiting unless doctor says to.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID:

INCOMPATABILITY *(Materials to avoid)* **Strong oxidizing agents or reducing agents.**

HAZARDOUS DECOMPOSITION PRODUCTS **Thermal decomp. may yield; oxides of carbon, oxides of nitrogen, solvent vapors.**

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID **Heat, sparks, open flames, other ignition sources.**

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **SMALL SPILL: Absorb liquid on paper, vermiculite or other absorbent material and transfer to hood or other well-ventilated, isolated place. LARGE SPILL: Eliminate all ignition sources (flares, flames, pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill source, dike area of spill to prevent spreading, transfer liquid to holding area, salvage tank, drums or other container. Remaining material may be taken up on sand, clay, earth, or other inert, non-combustible absorbent.** WASTE DISPOSAL SECTION IX BELOW.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION **In restricted ventilation areas use NIOSH approved chemical cartridge respirators for vapors, or combination chemical cartridge and spray mist filters for spraying mists. In confined areas or in case of very high concentrations, as from a spill indoors, use NIOSH approved air-supplied respirators or self contained breathing apparatus.**

VENTILATION **Provide general dilution ventilation or local exhaust as needed to keep vapor concentrations of ingredients in Section II below the TLVs. Local exhaust is essential for spraying operations. If "effects of overexposure" listed in Section V are evident, ventilation may be inadequate.**

PROTECTIVE GLOVES **Use of solvent-resistant gloves is strongly recommended.**

EYE PROTECTION **Use of goggles to prevent eye contact from splash is strongly recommended.**

OTHER PROTECTIVE EQUIPMENT **Safety shower and eyewash recommended.**

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING **Keep from heat, sparks, and open flames. Prohibit smoking in areas where this is handled. Avoid unnecessary, excessive and prolonged personal contact. Use only with adequate ventilation. *If lead poisoning is suspected, a physician should be consulted and a blood lead test taken. WASTE DISPOSAL: Small spill: Allow volatile portion to evaporate in hood or other well ventilated, isolated area. Allow sufficient time for vapors to completely clear. Dispose of remaining material in accord with local, state and federal regulations. Large spill: Destroy by liquid incineration under safe and controlled conditions. It is probably best to contact a licensed hazardous waste disposal company to handle incineration. Material collected on absorbent material may be deposited in a posted toxic substances landfill in accordance with local, state and federal regulations.**

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U S Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP. 1-31-83

Section I

MANUFACTURER'S NAME Prime Leather Finishes Company

STREET ADDRESS 205 S. Second Street CITY, STATE, AND ZIP CODE Milwaukee, WI 53204

EMERGENCY TELEPHONE NO. (414) 276-1668 (414) 367-2845 (414) 671-3319

PRODUCT CLASS Urethane Bottom Spray MANUFACTURERS CODE IDENTIFICATION SP-7633

Section II - HAZARDOUS INGREDIENTS

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Toluol, 2-Butanone, isopropanol, cyclohexanone, methyl isobutylketone xylol	87	50 ppm
2-ethoxy ethanol	5	5 ppm (ACGIH)

Section III - PHYSICAL DATA

BOILING POINT (°F.)	174-315	SPECIFIC GRAVITY (H_2O=1)	0.852
VAPOR PRESSURE (mm Hg.)	39 @ 20° C.	PERCENT VOLATILE BY VOLUME (%)	92
VAPOR DENSITY (AIR= 1)	2.8	EVAPORATION RATE (n-butyl acetate = 1)	2.2
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR	Colored liquid, solvent mix odor		

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Flammable Liquid

FLASH POINT 33° F S.C.C.

LEL 1.2%

EXTINGUISHING MEDIA

Foam, CO_2, Dry Chemical, Water Spray may be ineffective

UNUSUAL FIRE AND EXPLOSION HAZARDS Vapors may travel along the ground, igniting at locations other than the handling point. Empty containers may contain ignitable residue and/or vapors.

SPECIAL FIRE FIGHTING PROCEDURES Respiratory protection required for firefighters. Material may float on water; avoid spreading burning liquid with water used to cool adjacent containers.

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 50 ppm

EFFECTS OF OVEREXPOSURE Vapors may cause dizziness, headache, nausea, narcosis in high concentrations. Liquid is irritating to eyes. Prolonged or repeated skin contact may cause dryness leading to dermatitis.

EMERGENCY AND FIRST AID PROCEDURES

Eye contact: Flush with water 15 minutes; seek medical attention.

Skin contact: Wash with soap and water.

Inhalation: Provide fresh air and rest; oxygen/artificial respiration if necessary.

Ingestion: DO NOT induce vomiting; call physician immediately.

Section VI — REACTIVITY DATA

STABILITY [ ] UNSTABLE [X] STABLE CONDITIONS TO AVOID

INCOMPATABILITY (Materials to avoid)

Alkalies, oxidants

HAZARDOUS DECOMPOSITION PRODUCTS

Combustion produces carbon dioxide and carbon monoxide.

HAZARDOUS POLYMERIZATION [ ] MAY OCCUR [X] WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Remove all sources of ignition. Dike area of spill and pump free liquid to suitable containers. Collect remainder or small spill with absorbant material and transfer to containers. Do not allow to enter sewers or waterways. Ventilate area.

WASTE DISPOSAL METHOD Incinerate if permitted. Comply with all applicable regulations. Because of flash point, must be ocnsidered hazardous waste.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION Approved air-supplied mask in enclosed area or when the time-weighted TLV (above) is exceeded.

VENTILATION Must be sufficient to remove overspray and maintain exposure Below TLV. Local exhaust (except spray booth) should be at ground level if used.

PROTECTIVE GLOVES Recommended.

EYE PROTECTION Goggles/face shield

OTHER PROTECTIVE EQUIPMENT Eye wash

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from heat, sparks, or flames. Keep container closed. Use with adequate ventilation. Handling equipment should be electrically grounded.

OTHER PRECAUTIONS

2-ethoxy ethanol in concentrations exceeding 160 ppm has been shown to cause kidney, lung, and reproductive damage in some lab animals.

SECTION 1

MANUFACTURERS NAME: PAULE CHEMICAL,BEATRICE CHEM.,DIV. BEATRICE FOODS
ADDRESS: CORWIN ST., PEABODY MA. 01960
EMERGENCY TELEPHONE NO.:
DAYS: /617/ 532-0520
NIGHTS:/617/ 527-6377
PRODUCT NAME: MVS-6356 TONER

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	TLV	LEL	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C
ESTER	10-20	150 PPM	1.27	12.5	20.0
2-ETHOXY ETHANOL	25-30	5 PPM (SKIN)	1.70	4.0	20.0
HYDROCARBON	20-30	100 PPM	1.30	22.0	20.0
KETONE	30-40	50PPM	1.40	28.0	20.0

THE TLV (THRESHOLD LIMIT VALUE) SHOWN ABOVE FOR 2-ETHOXYETHANOL IS THE ACGIH VALUE FOR 1982. UNION CARBIDE, A MAJOR MANUFACTURER OF 2-ETHOXYETANOL HAS SET AN INTERNAL "PERSONAL EXPOSURE LIMIT" AS FOLLOWS: "AS LOW AS FEASIBLE, INCLUDING SHORT-TERM CONCENTRATION PEAKS, ESPECIALLY FOR WOMEN OF CHILDBEARING POTENTIAL. ALL SKIN CONTACT SHOULD BE AVOIDED." (FROM UNION CARBIDE MSDS DATED 2/1/83)

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

VAPOR DENSITY:
HEAVIER THAN AIR (FOR SOLVENT CONTENT).

BOILING RANGE:231-276 DEGREES F (SOLVENT ONLY)
PERCENT VOLATILE BY WEIGHT (ORGANIC SOLVENT ONLY): 90-100
WEIGHT PER GALLON: 7.23 POUNDS PER U.S. GALLON

SECTION 4-FIRE AND EXPLOSION DATA

FLASH POINT -CLOSED CUP- 040 DEGREES F (APPROXIMATELY)

EXTINGUISHING MEDIA

USE EXTINGUISHING AGENTS SUITABLE FOR CLASS B FIRES. THESE INCLUDE CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND HALON AGENTS.

UNUSUAL FIRE AND EXPLOSION HAZARDS

FLAMMABLE LIQUID. VAPORS MAY IGNITE OR EXPLODE IF THEY ARE ALLOWED TO ACCUMULATE IN AREAS WHERE AN IGNITION SOURCE COULD BE PRESENT. CLOSED CONTAINERS MAY EXPLODE IF EXPOSED TO EXTREME HEAT, SUCH AS OCCURS IN A FIRE.
MAY FLOAT ON WATER WHILE BURNING.
DO NOT STORE OR MIX WITH STRONG OXIDANTS.
KEEP WORK AREAS FREE OF HOT METAL SURFACES AND OTHER IGNITION SOURCES.

SPECIAL FIRE FIGTHING PROCEDURES

WATER MAY BE INEFFECTIVE. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. WATER MAY BE USED TO COOL EXPOSED CONTAINERS, BUT CARE SHOULD BE TAKEN NOT TO SPREAD TO ANY BURNING LIQUID. MESA/NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS SHOULD BE WORN WHEN FIGHTING INDOOR FIRES, AND SHOULD BE AVAILABLE WHEN FIGHTING OUTDOOR FIRES.

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE - SEE SECTION 2

EFFECTS OF OVEREXPOSURE

SECTION 5 - HEALTH HAZARD DATA - CONTINUED -

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR IN SOME CASES.
DUE TO SOLVENT CONTENT, BREATHING OF VAPORS MAY CAUSE HEADACHE, NAUSEA, DIZZINESS, VOMITING, AND, IN EXTREME CASES, UNCONSCIOUSNESS. LIQUID MAY CAUSE DEFATTING OF SKIN AND DERMATITIS. THE LIKELIHOOD OF THESE EFFECTS OCCURRING IS PARTIALLY DEPENDENT UPON THE AMOUNT OF SOLVENT IN THE PRODUCT, AS INDICATED IN SECTION 2.

SKIN ABSORPTION: PROLONGED OR WIDESPREAD CONTACT WITH SKIN MAY LEAD TO ABSORPTION OF HARMFUL AMOUNTS OF MATERIAL RESULTING IN SIGNS AND SYMPTOMS OF TOXICITY AS DESCRIBED FOR EFFECTS OF "SWALLOWING", BELOW.

POSSIBILITY OF LIVER AND/OR KIDNEY DAMAGE.
MAY CAUSE NARCOSIS IN HIGH CONCENTRATIONS.
BRAIN CELL DAMAGE MAY RESULT FROM LONG-TERM INHALATION OF VAPORS.

EFFECTS OF REPEATED OVEREXPOSURE: IN LABORATORY ANIMAL STUDIES, ADMINISTRATION OF 2-ETHOXYETANOL (SEE SECT.2) HAS RESULTED IN ANEMIA, BONE MARROW DAMAGE AND DAMAGE TO MALE REPRODUCTIVE TISSUES. REPEATED OVEREXPOSURE TO VAPORS HAS RESULTED IN KIDNEY AND POSSIBLE LIVER DAMAGE AND YELLOW DISCOLORATION OF THE EYES.

OTHER HEALTH HAZARDS: IN LABORATORY ANIMAL STUDIES OF 2-ETHOXYETHANOL , BIRTH DEFECTS HAVE BEEN OBSERVED IN OFFSPRING OF FEMALE ANIMALS EXPOSED DURING PREGNANCY TO A CONCENTRATION OF 160 PPM IN AIR.
ADDITIONAL LABORATORY STUDIES ARE UNDERWAY TO HELP CLARIFY THE SIGNIFICANCE OF THESE OBSERVATIONS. ASSESSMENT OF THE RESULTS OF THE STUDIES WILL ASSIST IN DEFINING PERSONAL EXPOSURE LIMITS.
SWALLOWING OF 2-ETHOXYETANOL OR 2-ETHOXYETHYL ACETATE (SEE SECTION 2 FOR WHICH IS CONTAINED IN THIS PRODUCT) MAY CAUSE HEADACHE, NAUSEA, VOMITING, DIZZINESS, BREATHING DIFFICULTIES, AND WEAKNESS. POSSIBLE KIDNEY DAMAGE MAY RESULT FROM INGESTION OF LARGE QUANTITIES OF MATERIAL.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT
WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT
FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.

INHALATION
REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION
SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.
CONTAINS A PETROLEUM DISTILLATE. DO NOT INDUCE VOMITING, GUARD AGAINST ASPIRATION INTO LUNGS.

OTHERS
THERE IS NO SPEGIFIC ANTIDOTE. TREATMENT OF OVEREXPOSURE SHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL CONDITION.

SECTION 6 - REACTIVITY DATA

STABILITY
STABLE.

INCOMPATIBILITY

SECTION 6 - REACTIVITY DATA - CONTINUED -

STRONG OXIDIZING OR REDUCING AGENTS.
AVOID CONTAMINATION WITH ALKALIES.
AVOID CONTAMINATION WITH SODIUM HYDROXIDE AND/OR CONCENTRATED NITRIC ACID.
LIQUID CHLORINE AND CONCENTRATED OXYGEN.
STRONG ACIDS OR BASES, SELECTED AMINES.
STRONG MINERAL ACIDS, ALKALI METALS, AND HALOGENS.

HAZARDOUS DECOMPOSITION PRODUCTS

COMBUSTION MAY YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE.

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

HEAT, SPARKS, OPEN FLAMES, AND OTHER IGNITION SOURCES.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.

WHEN HANDLING SPILL INCIDENTS, ELIMINATE ALL POTENTIAL IGNITION SOURCES, SUCH AS FLARES, FLAMES, PILOT LIGHTS, SMOKING, SPARKING MOTORS, ETC. IF THE SPILL IS INDOORS OR IN A CONFINED AREA, VENTILATE THE AREA (SUCH AS BY OPENING WINDOWS AND DOORS), BUT DO NOT USE SPARK-PRODUCING EQUIPMENT, SUCH AS NON-EXPLOSION-PROOF FANS. USE NON-SPARKING TOOLS FOR CLEANUP. TAKE ALL OTHER PRECAUTIONS APPROPRIATE TO HANDLING A SPILL OF A MATERIAL THAT CONTAINS FLAMMABLE OR COMBUSTIBLE LIQUIDS.
TOXIC TO FISH; AVOID DISCHARGE TO NATURAL WATERS.
KEEP OUT OF PUBLIC SEWERS, STREAMS, AND RIVERS.

WASTE DISPOSAL

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

THIS PRODUCT CONTAINS FLAMMABLE OR COMBUSTIBLE SOLVENTS. INCINERATION OR SOLVENT RECLAMATION MAY BE CONSIDERED AS POSSIBLE WASTE HANDLING METHODS. THE AMOUNT OF SOLVENT (SEE SECTION 2), PERCENT VOLATILE (SEE SECTION 3), AS WELL AS THE DEGREE OF FLAMMABILITY (SEE SECTION 4) MAY BE HELPFUL IN DETERMINING THE BEST WASTE HANDLING METHODS.

USER RESPONSABILITY FOR SPILLS AND WASTES

USERS OF THIS PRODUCT SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY PRECAUTIONS TO PROTECT PEOPLE, PROPERTY AND THE ENVIRONMENT WHEN HANDLING PRODUCT SPILLS, AND FOR CONDUCTING CLEAN-UPS IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. USERS SHALL BE RESPONSIBLE FOR KNOWING THE CONTENTS OF THIS MATERIAL SAFETY DATA SHEET, AS WELL AS ANY OTHER INFORMATION NECESSARY TO DEAL WITH SPILLS. FEDERAL REGULATIONS AT 40 CFR 262.11 REQUIRE THAT THE GENERATOR OF A WASTE DETERMINE IF IT IS HAZARDOUS; THE PRODUCT VENDOR DOES NOT KNOW HOW THE PRODUCT WILL BE USED, AND THUS, USERS SHALL BE SOLELY RESPONSIBLE FOR DETERMINING WHETHER ANY WASTES CONTAINING THIS PRODUCT ARE HAZARDOUS.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

SECTION 8 - SPECIAL PROTECTION INFORMATION - CONTINUED -

IN RESTRICTED VENTILATION AREAS USE NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATORS FOR VAPORS,OR COMBINATION CHEMICAL CARTRIDGE AND SPRAY MIST FILTERS FOR MISTS FROM SPRAYING. IN CONFINED AREAS OR IN CASE OF VERY HIGH CONCENTRATIONS, AS FROM SPILLS INDOORS, USE NIOSH-APPROVED AIR-SUPPLIED OR SELF-CONTAINED BREATHING APPARATUS. THE HAZARDOUS INGREDIENTS LISTED IN SECTION 2 SHOULD BE CONSIDERED IN CHOOSING THE PROPER RESPIRATORY PROTECTION. FOR SOLVENTS, ORGANIC VAPOR CARTRIDGES ARE GENERALLY APPROPRIATE.

VENTILATION

PROVIDE GENERAL DILUTION VENTILATION OR LOCAL EXHAUST AS NEEDED TO KEEP VAPOR CONCENTRATIONS OF THE INGREDIENTS LISTED IN SECTION 2 TO BELOW THEIR TLV'S. LOCAL EXHUAST IS ESSENTIAL FOR SPRAYING OPERATIONS. IF EFFECTS OF OVEREXPOSURE LISTED IN SECTION 5 ARE EVIDENT, VENTILATION MAY BE INADEQUATE.
CONTAINS FLAMMABLE SOLVENTS. EXHAUST SYSTEMS SHOULD INCORPORATE SPARK-PROOF BLOWERS, FAN BLADES, ETC.
THIS PRODUCT SHOULD BE HANDLED IN COVERED EQUIPMENT, IN WHICH CASE GENERAL (MECHANICAL) ROOM VENTILATION IS SATISFACTORY. SPECIAL LOCAL VENTILATION MAY BE NEEDED AT POINTS WHERE VAPORS CAN BE EXPECTED TO ESCAPE TO WORKPLACE AIR.

PROTECTIVE GLOVES

IMPERMEABLE GLOVES REQUIRED.
IT IS ABSOLUTELY ESSENTIAL THAT IMPERMEABLE PROTECTIVE GLOVES BE WORN TO PREVENT ANY POSSIBILITY OF SKIN CONTACT. BUTYL RUBBER GLOVES ARE RECOMMENDED FOR PROTECTION AGAINST 2-ETHOXYETHANOL, 2-METHOXYETHANOL, 2-ETHOXYETHYL ACETATE, AND 2-METHOXYETHANOL ACETATE (SEE SECTION 2 FOR WHICH OF THESE ARE CONTAINED IN THIS PRODUCT). CHECK RESISTANCE TO OTHER INGREDIENTS LISTED IN SECTION 2.

EYE PROTECTION

USE OF SPLASH-PROOF CHEMICAL GOGGLES OR EQUIVALENT EYE PROTECTION TO PREVENT EYE CONTACT FROM SPLASHES IS STRONGLY RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT

IT IS RECOMMENDED THAT A SAFETY SHOWER AND EYE WASH BE AVAILABLE WHEREVER THIS PRODUCT IS HANDLED OR USED.

SECTION 9 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

NORMAL GOOD HOUSEKEEPING AND GOOD INDUSTRIAL HYGEINE PROCEDURES SHOULD BE ADHERED TO. UNNECESSARY, EXCESSIVE, AND/OR PROLONGED PERSONAL CONTACT SHOULD BE AVOIDED. USE ONLY WITH ADEQUATE VENTILATION.
KEEP FROM HEAT, SPARKS, OPEN FLAMES, HOT METAL SURFACES, AND OTHER IGNITION SOURCES. PROHIBIT SMOKING IN AREAS WHERE THIS PRODUCT IS HANDLED. HANDLE ONLY WITH EQUIPMENT APPROPRIATE FOR HANDLING FLAMMABLE LIQUIDS. APPLY PRODUCT IN PROPERLY EXHAUSTED EQUIPMENT ONLY.
AVOID SKIN AND EYE CONTACT. AVOID INHALATION OF HIGH CONCENTRATIONS OF VAPOR.
REMOVE CONTAMINATED CLOTHING. WASH BEFORE REUSE.
AVOID SPLASH FILLING.
DUE TO THE PRESENCE OF 2-METHOXYETANOL, 2-ETHOXYETANOL, OR 2-ETHOXYETHL ACETATE (SEE SECTION 2) IT IS IMPORTANT TO CAREFULLY FOLLOW THE FOLLOWING PROCEDURES:
DO NOT BREATHE VAPOR. USE WITH ADEQUATE VENTILATION.
DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.
ACCIDENTAL CONTACT SHOULD BE WASHED AWAY IMMEDIATELY.
KEEP CONTAINER CLOSED.
(SEE ALSO SECTION 5)

SECTION 9 - SPECIAL PRECAUTIONS - CONTINUED -

OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.
HARMFUL IF INHALED.

SECTION 10 -USER RESPONSIBILITY

IT IS THE USER'S RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE AND USER MAY REFER TO THIS DATA SHEET AND OTHER AVAILABLE INFO. IN DRAFTING HEALTH AND SAFETY GUIDELINES FOR EMPLOYEES AND CUSTOMERS WHO USE THIS PRODUCT, OR MATERIALS MADE WITH THIS PRODUCT. USER IS SOLELY RESPONSIBLE FOR HANDLING THIS PRODUCT OR WASTES CONTAINING THIS PRODUCT IN A SAFE MANNER AND IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. USER ASSUMES THE RISK IN ITS USE OF THIS PRODUCT.

AS THE CONDITIONS OR METHODS OF USING THIS PRODUCT ARE BEYOND VENDOR'S CONTROL, VENDOR EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY USE OF THIS PRODUCT. ADDITIONALLY, VENDOR MAKES NO WARRANTY, EXPRESS OR IMPLIED, ABOUT THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. VENDOR SHOULD BE CONTACTED IF ADDITIONAL INFORMATION ABOUT THIS PRODUCT IS NEEDED.

SECTION 1

MANUFACTURERS NAME: PAULE CHEMICAL,BEATRICE CHEM.,DIV. BEATRICE FOODS
ADDRESS: CORWIN ST., PEABODY MA. 01960
EMERGENCY TELEPHONE NO.:
DAYS: /617/ 532-0520
NIGHTS:/617/ 527-6377
PRODUCT NAME: MTD-6354 SILGA EFFECT

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	TLV	LEL	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C
KETONE	90-100	1000 PPM	2.60	380.0	38.0

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

VAPOR DENSITY:
HEAVIER THAN AIR (FOR SOLVENT CONTENT).

BOILING RANGE:133-133 DEGREES F (SOLVENT ONLY)
PERCENT VOLATILE BY WEIGHT (ORGANIC SOLVENT ONLY): 90-100
WEIGHT PER GALLON: 6.86 POUNDS PER U.S. GALLON

SECTION 4-FIRE AND EXPLOSION DATA

FLASH POINT -CLOSED CUP- 000 DEGREES F (APPROXIMATELY)

EXTINGUISHING MEDIA

USE EXTINGUISHING AGENTS SUITABLE FOR CLASS B FIRES. THESE INCLUDE CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND HALON AGENTS.

UNUSUAL FIRE AND EXPLOSION HAZARDS

FLAMMABLE LIQUID. VAPORS MAY IGNITE OR EXPLODE IF THEY ARE ALLOWED TO ACCUMULATE IN AREAS WHERE AN IGNITION SOURCE COULD BE PRESENT. CLOSED CONTAINERS MAY EXPLODE IF EXPOSED TO EXTREME HEAT, SUCH AS OCCURS IN A FIRE.
KEEP WORK AREAS FREE OF HOT METAL SURFACES AND OTHER IGNITION SOURCES.

SPECIAL FIRE FIGTHING PROCEDURES

WATER MAY BE INEFFECTIVE. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. WATER MAY BE USED TO COOL EXPOSED CONTAINERS, BUT CARE SHOULD BE TAKEN NOT TO SPREAD TO ANY BURNING LIQUID. MESA/NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS SHOULD BE WORN WHEN FIGHTING INDOOR FIRES, AND SHOULD BE AVAILABLE WHEN FIGHTING OUTDOOR FIRES.

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -SEE SECTION 2

EFFECTS OF OVEREXPOSURE

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR IN SOME CASES.
DUE TO SOLVENT CONTENT, BREATHING OF VAPORS MAY CAUSE HEADACHE, NAUSEA, DIZZINESS, VOMITING, AND, IN EXTREME CASES,

SECTION 5 - HEALTH HAZARD DATA - CONTINUED -

UNCONSCIOUSNESS. LIQUID MAY CAUSE DEFATTING OF SKIN AND DERMATITIS. THE LIKELIHOOD OF THESE EFFECTS OCCURRING IS PARTIALLY DEPENDENT UPON THE AMOUNT OF SOLVENT IN THE PRODUCT, AS INDICATED IN SECTION 2.
LIQUID WILL DAMAGE EYE TISSUE.
LIQUID MAY POSSIBLY BE ABSORBED THROUGH THE INTACT SKIN.
MAY CAUSE NARCOSIS IN HIGH CONCENTRATIONS.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT
WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT
FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.

INHALATION
REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION
SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.

OTHERS

SECTION 6 - REACTIVITY DATA

STABILITY
STABLE.

INCOMPATIBILITY

NO HAZARDOUS INCOMPATIBILITIES KNOWN TO MANUFACTURER.

HAZARDOUS DECOMPOSITION PRODUCTS

NONE KNOWN TO MANUFACTURER.

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

NONE KNOWN TO MANUFACTURER.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.

WHEN HANDLING SPILL INCIDENTS, ELIMINATE ALL POTENTIAL IGNITION SOURCES, SUCH AS FLARES, FLAMES, PILOT LIGHTS, SMOKING, SPARKING MOTORS, ETC. IF THE SPILL IS INDOORS OR IN A CONFINED AREA, VENTILATE THE AREA (SUCH AS BY OPENING WINDOWS AND DOORS), BUT DO NOT USE SPARK-PRODUCING EQUIPMENT, SUCH AS NON-EXPLOSION-PROOF FANS. USE NON-SPARKING TOOLS FOR CLEANUP. TAKE ALL OTHER PRECAUTIONS APPROPRIATE TO HANDLING A SPILL OF A MATERIAL THAT CONTAINS FLAMMABLE OR COMBUSTIBLE LIQUIDS.

WASTE DISPOSAL

SECTION 7 - SPILL OR LEAK PROCEDURES - CONTINUED -

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

THIS PRODUCT CONTAINS FLAMMABLE OR COMBUSTIBLE SOLVENTS. INCINERATION OR SOLVENT RECLAMATION MAY BE CONSIDERED AS POSSIBLE WASTE HANDLING METHODS. THE AMOUNT OF SOLVENT (SEE SECTION 2), PERCENT VOLATILE (SEE SECTION 3), AS WELL AS THE DEGREE OF FLAMMABILITY (SEE SECTION 4) MAY BE HELPFUL IN DETERMINING THE BEST WASTE HANDLING METHODS.

USER RESPONSABILITY FOR SPILLS AND WASTES

USERS OF THIS PRODUCT SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY PRECAUTIONS TO PROTECT PEOPLE, PROPERTY AND THE ENVIRONMENT WHEN HANDLING PRODUCT SPILLS, AND FOR CONDUCTING CLEAN-UPS IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. USERS SHALL BE RESPONSIBLE FOR KNOWING THE CONTENTS OF THIS MATERIAL SAFETY DATA SHEET, AS WELL AS ANY OTHER INFORMATION NECESSARY TO DEAL WITH SPILLS. FEDERAL REGULATIONS AT 40 CFR 262.11 REQUIRE THAT THE GENERATOR OF A WASTE DETERMINE IF IT IS HAZARDOUS; THE PRODUCT VENDOR DOES NOT KNOW HOW THE PRODUCT WILL BE USED, AND THUS, USERS SHALL BE SOLELY RESPONSIBLE FOR DETERMINING WHETHER ANY WASTES CONTAINING THIS PRODUCT ARE HAZARDOUS.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

IN RESTRICTED VENTILATION AREAS USE NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATORS FOR VAPORS,OR COMBINATION CHEMICAL CARTRIDGE AND SPRAY MIST FILTERS FOR MISTS FROM SPRAYING. IN CONFINED AREAS OR IN CASE OF VERY HIGH CONCENTRATIONS, AS FROM SPILLS INDOORS, USE NIOSH-APPROVED AIR-SUPPLIED OR SELF-CONTAINED BREATHING APPARATUS. THE HAZARDOUS INGREDIENTS LISTED IN SECTION 2 SHOULD BE CONSIDERED IN CHOOSING THE PROPER RESPIRATORY PROTECTION. FOR SOLVENTS, ORGANIC VAPOR CARTRIDGES ARE GENERALLY APPROPRIATE.

VENTILATION

PROVIDE GENERAL DILUTION VENTILATION OR LOCAL EXHAUST AS NEEDED TO KEEP VAPOR CONCENTRATIONS OF THE INGREDIENTS LISTED IN SECTION 2 TO BELOW THEIR TLV'S. LOCAL EXHUAST IS ESSENTIAL FOR SPRAYING OPERATIONS. IF EFFECTS OF OVEREXPOSURE LISTED IN SECTION 5 ARE EVIDENT, VENTILATION MAY BE INADEQUATE.
CONTAINS FLAMMABLE SOLVENTS. EXHAUST SYSTEMS SHOULD INCORPORATE SPARK-PROOF BLOWERS, FAN BLADES, ETC.

PROTECTIVE GLOVES

USE OF SOLVENT RESISTANT GLOVES IS STRONGLY RECOMMENDED.

EYE PROTECTION

USE OF SPLASH-PROOF CHEMICAL GOGGLES OR EQUIVALENT EYE PROTECTION IS REQUIRED.

OTHER PROTECTIVE EQUIPMENT

IT IS RECOMMENDED THAT A SAFETY SHOWER AND EYE WASH BE AVAILABLE WHEREVER THIS PRODUCT IS HANDLED OR USED.

SECTION 9 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

SECTION 9 - SPECIAL PRECAUTIONS - CONTINUED -

NORMAL GOOD HOUSEKEEPING AND GOOD INDUSTRIAL HYGEINE PROCEDURES SHOULD BE ADHERED TO. UNNECESSARY, EXCESSIVE, AND/OR PROLONGED PERSONAL CONTACT SHOULD BE AVOIDED. USE ONLY WITH ADEQUATE VENTILATION.

KEEP FROM HEAT, SPARKS, OPEN FLAMES, HOT METAL SURFACES, AND OTHER IGNITION SOURCES. PROHIBIT SMOKING IN AREAS WHERE THIS PRODUCT IS HANDLED. HANDLE ONLY WITH EQUIPMENT APPROPRIATE FOR HANDLING FLAMMABLE LIQUIDS. APPLY PRODUCT IN PROPERLY EXHAUSTED EQUIPMENT ONLY.

REMOVE CONTAMINATED CLOTHING. WASH BEFORE REUSE.

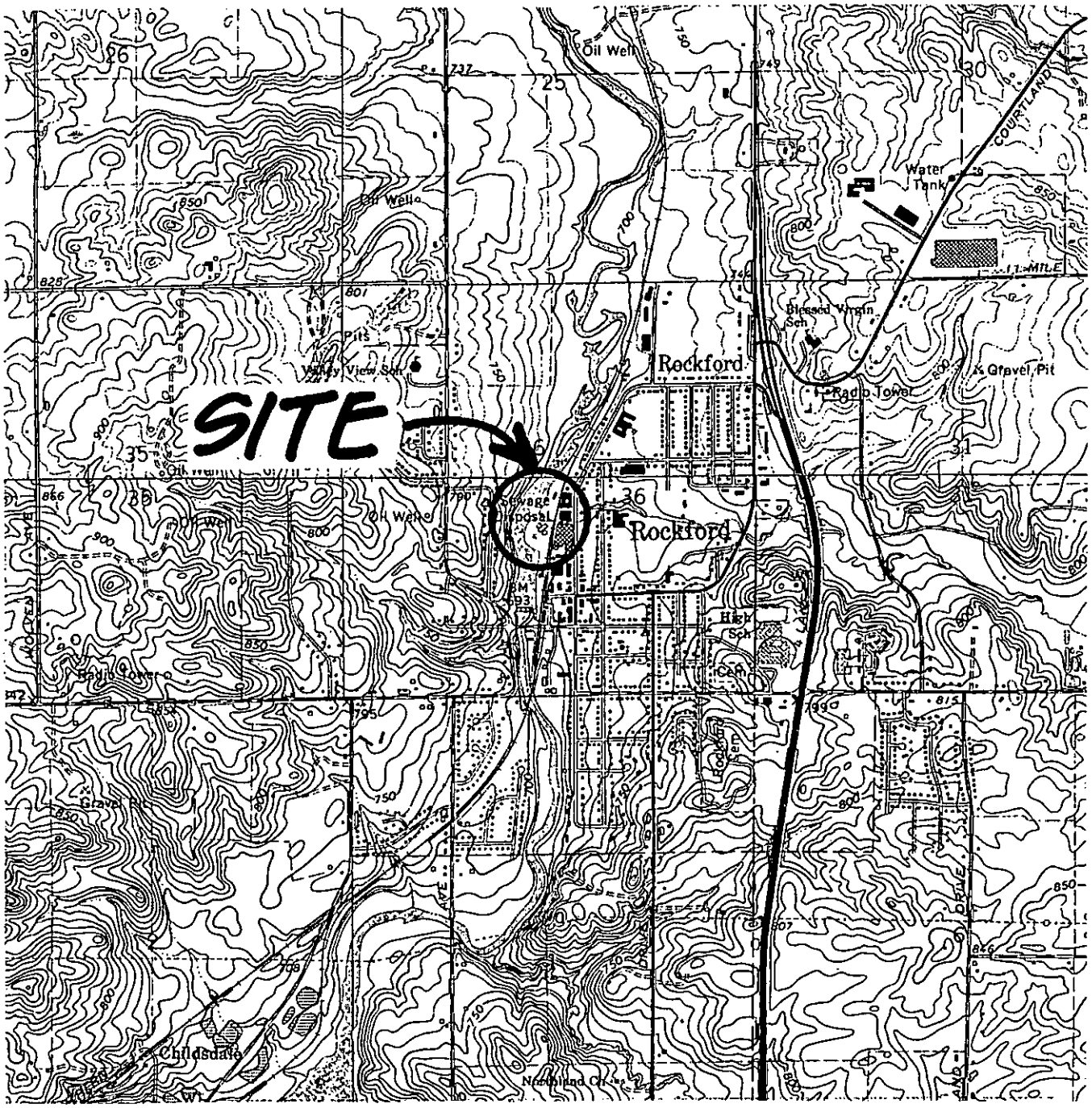
OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.

SECTION 10 -USER RESPONSIBILITY

IT IS THE USER'S RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE AND USER MAY REFER TO THIS DATA SHEET AND OTHER AVAILABLE INFO. IN DRAFTING HEALTH AND SAFETY GUIDELINES FOR EMPLOYEES AND CUSTOMERS WHO USE THIS PRODUCT, OR MATERIALS MADE WITH THIS PRODUCT. USER IS SOLELY RESPONSIBLE FOR HANDLING THIS PRODUCT OR WASTES CONTAINING THIS PRODUCT IN A SAFE MANNER AND IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. USER ASSUMES THE RISK IN ITS USE OF THIS PRODUCT.

AS THE CONDITIONS OR METHODS OF USING THIS PRODUCT ARE BEYOND VENDOR'S CONTROL, VENDOR EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY USE OF THIS PRODUCT. ADDITIONALLY, VENDOR MAKES NO WARRANTY, EXPRESS OR IMPLIED, ABOUT THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. VENDOR SHOULD BE CONTACTED IF ADDITIONAL INFORMATION ABOUT THIS PRODUCT IS NEEDED.



QUADRANGLE LOCATION

ROCKFORD, MICH.

SCALE : 1" = 2000'

NORTH

DRAWN BY: KJB	FILE NO.: 09442201
APPROVED BY: BLR	DATE: 9/29/99

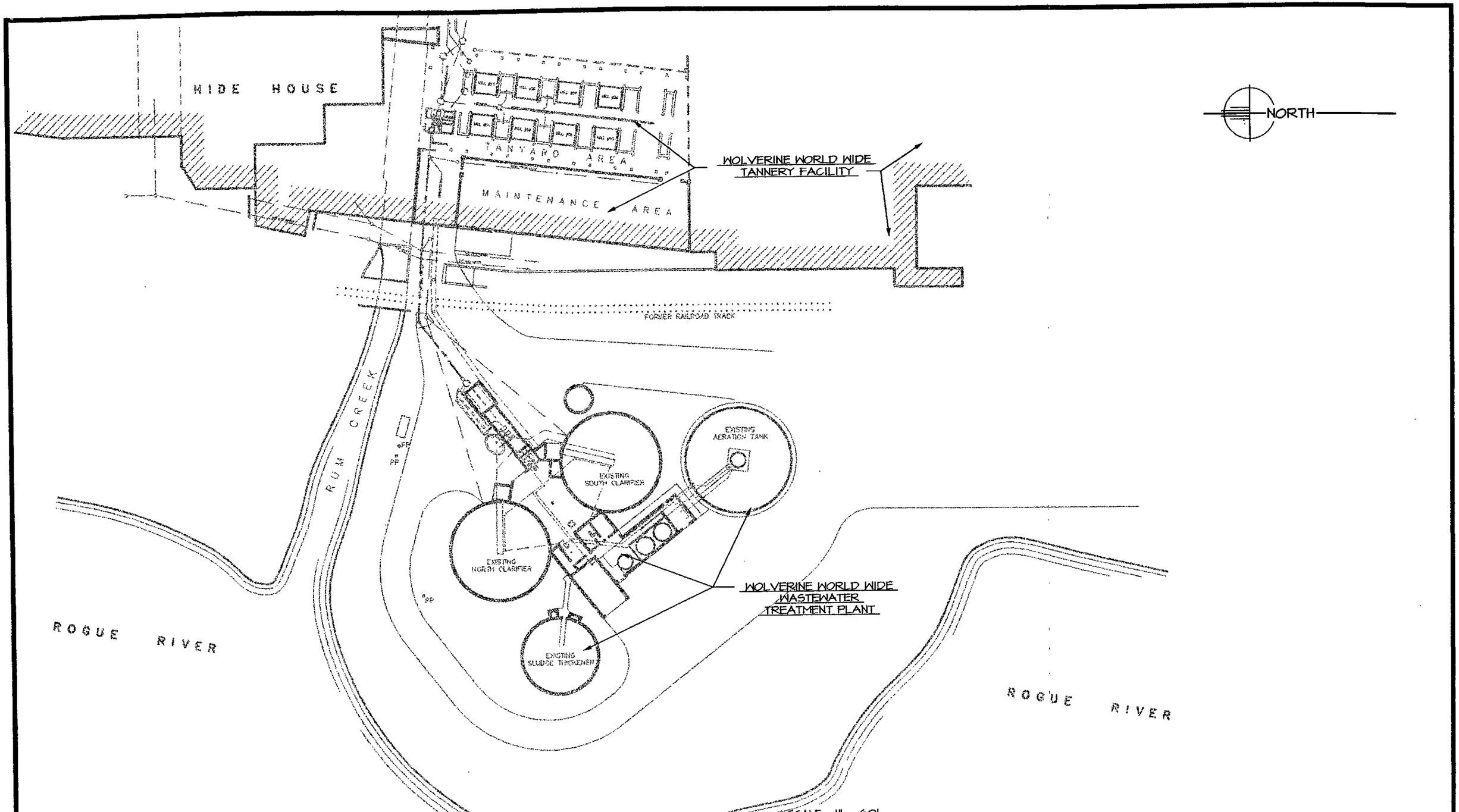
LOCATION MAP

PROJECT NO. 0003.00949.2

FIGURE NO. 1

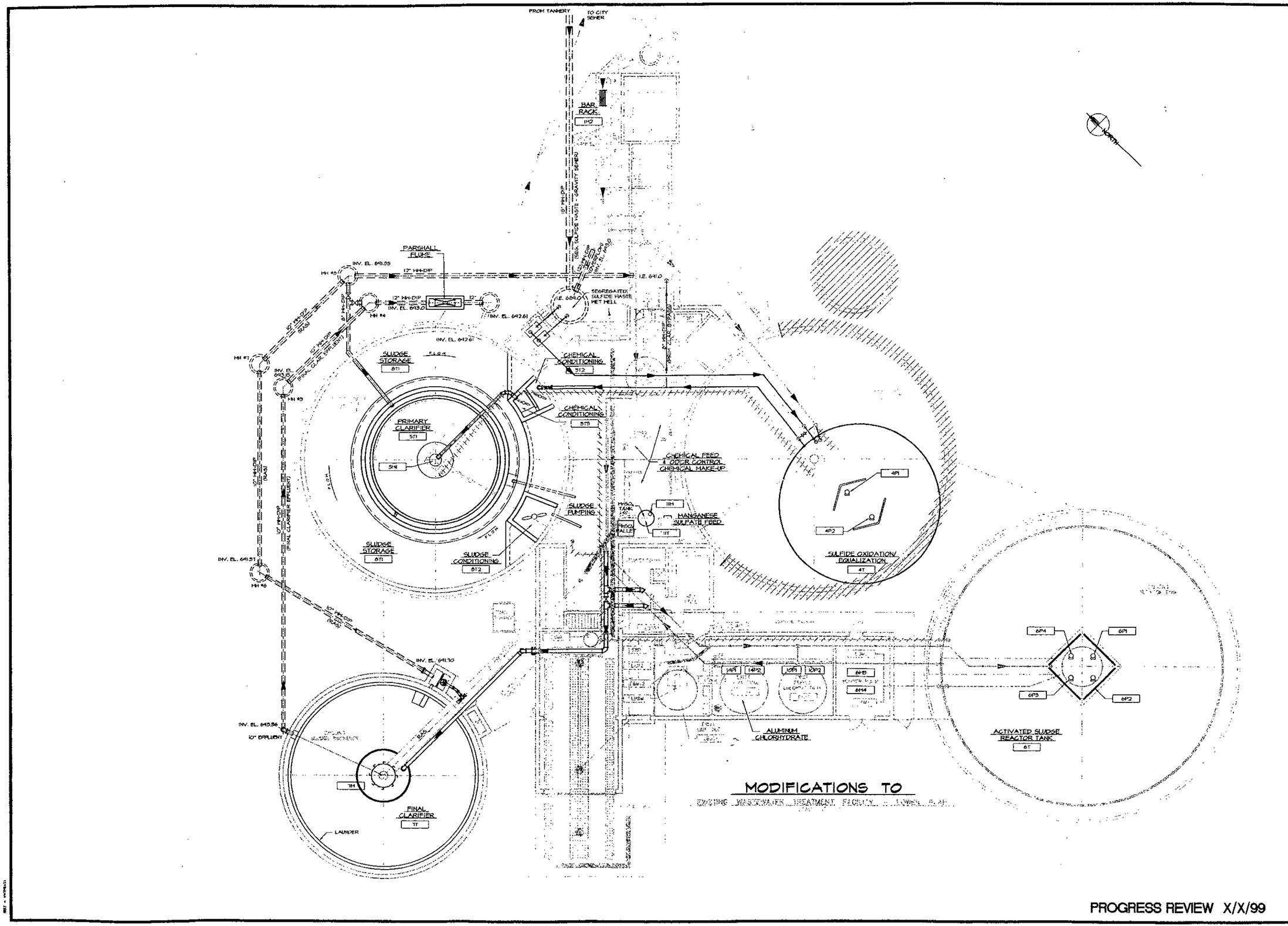
ROSE & WESTRA, INC.
ENVIRONMENTAL CONSULTANTS
Grand Rapids, Michigan

WOLVERINE WORLD WIDE, INC.
ROCKFORD, MICHIGAN
WASTEWATER IMPROVEMENTS



SCALE : 1" = 60'

DRAWN BY: KJB	FILE NO.: 09442201	SITE PLAN	PROJECT NO. 0003.00949.2
APPROVED BY: BLR	DATE: 9/24/99	ROSE & WESTRA, INC. ENVIRONMENTAL CONSULTANTS Grand Rapids, Michigan	WOLVERINE WORLD WIDE, INC. ROCKFORD, MICHIGAN WASTEWATER IMPROVEMENTS	FIGURE NO. 2



MODIFICATIONS TO
EXISTING WASTEWATER TREATMENT FACILITY - LOWER PLAN

PROGRESS REVIEW X/X/99

DRAWN BY	DESIGN BY	DATE
KJB	BLR	9/30/99

FILE NO: 04442501

NO.	REVISIONS	BY	DATE

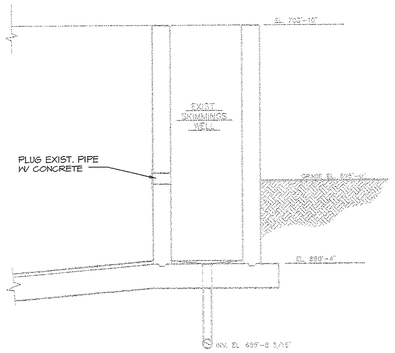
REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

WOLVERINE WORLD WIDE, INC.
ROCKFORD, MICHIGAN
WASTEWATER IMPROVEMENTS

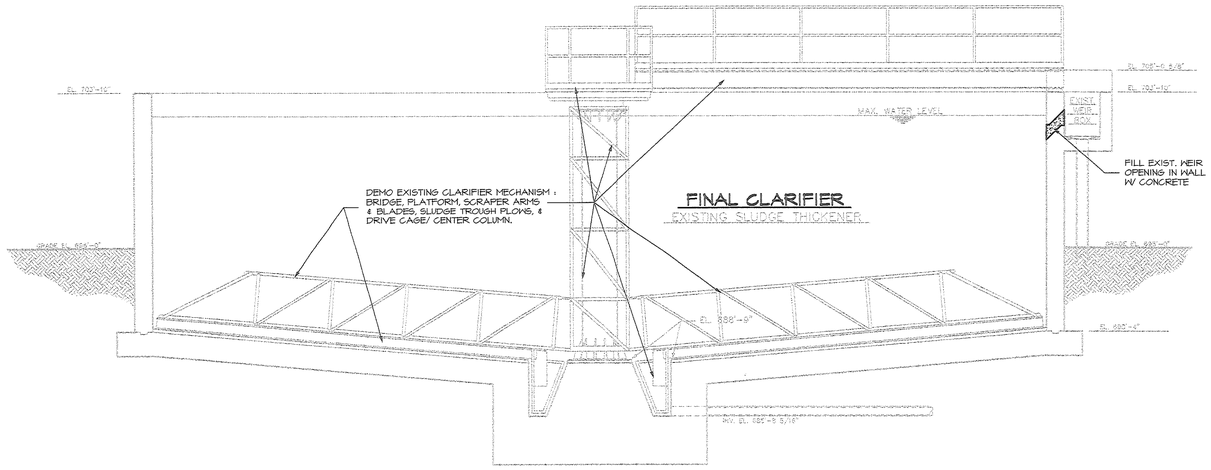
ROSE & WESTRA, INC.
ENVIRONMENTAL CONSULTANTS
Grand Rapids, Michigan

PROJECT NO. 0003.00949.2

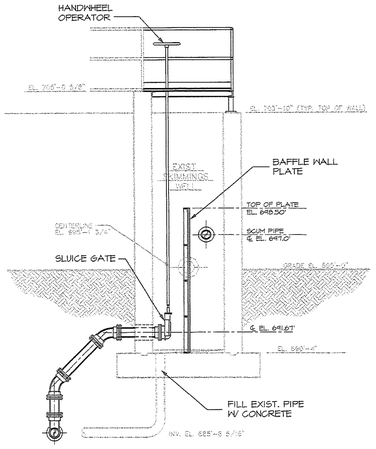
SHEET NO. P-1



SKIMMINGS WELL SECTION
SCALE : 1/4" = 1'-0"



SLUDGE THICKENER SECTION
SCALE : 1/4" = 1'-0"



SKIMMINGS WELL SECTION
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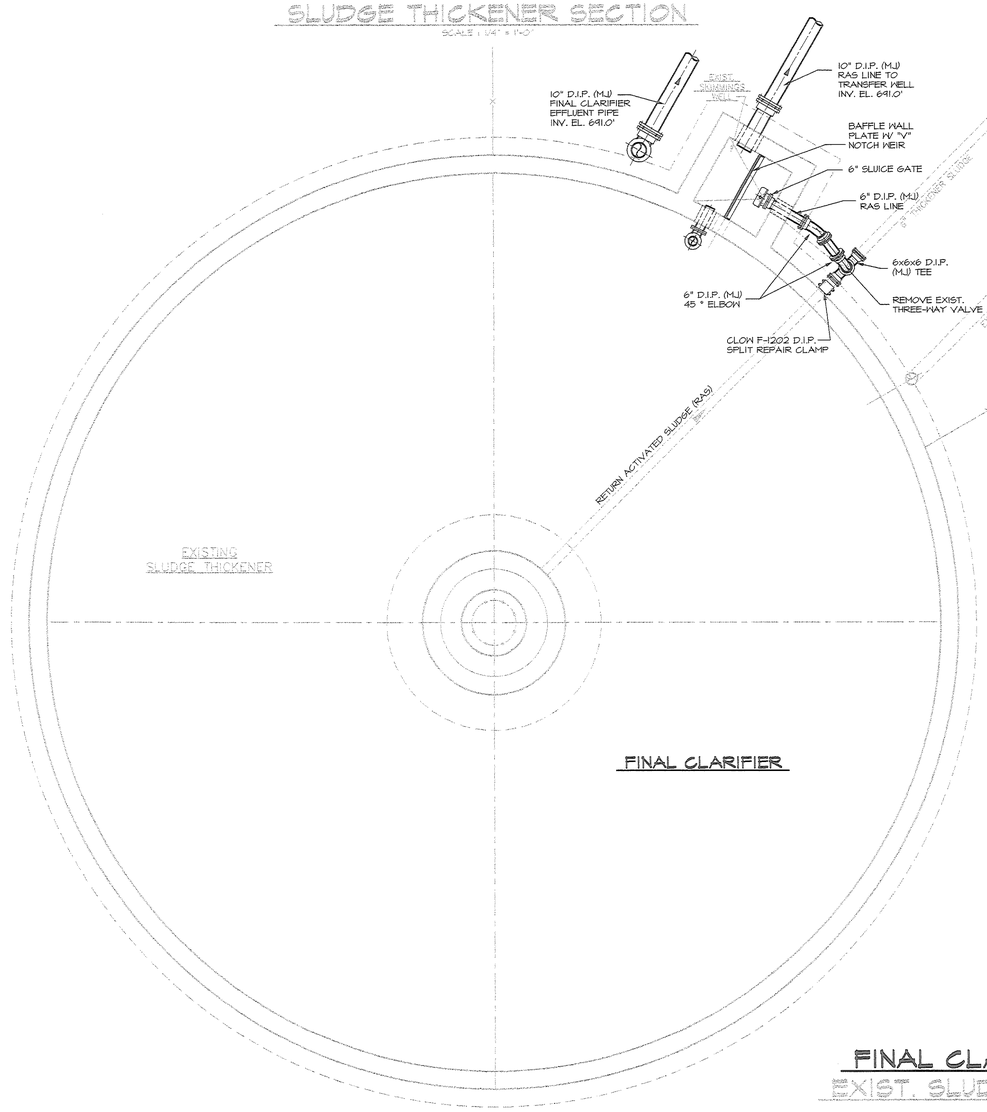

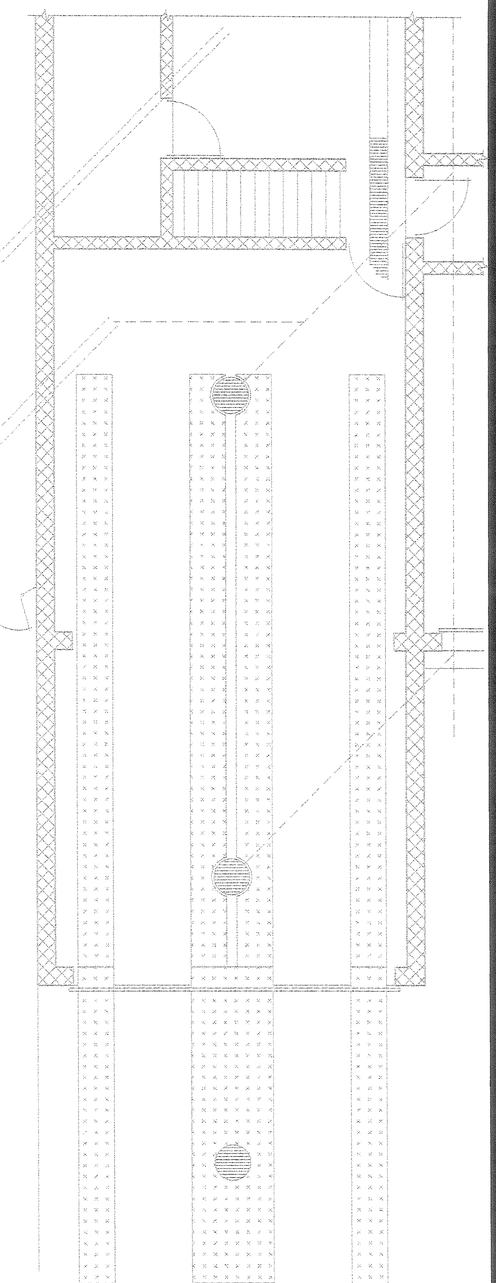

FINAL CLARIFIER - MODIFICATIONS TO
EXIST. SLUDGE THICKENER - LOWER PLAN
SCALE : 1/4" = 1'-0"

NORTH

DRAWN BY	DESIGN BY	DATE
K-JB	BLR	8/3/99

FILE NO.: 04441522

NO.	REVISIONS	BY	DATE

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ROCKFORD, MICHIGAN
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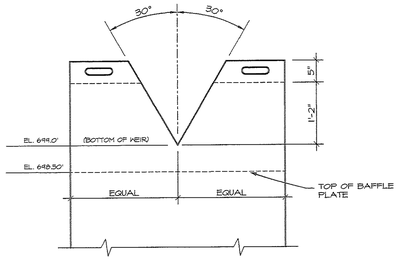
Grand Rapids, Michigan

PROJECT NO. 0003.00949.2

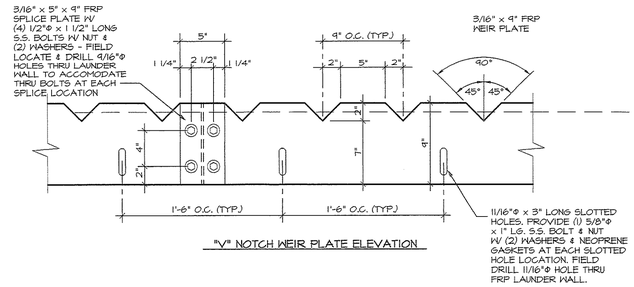
SHEET NO. PD-2

XREF : THICKLOW

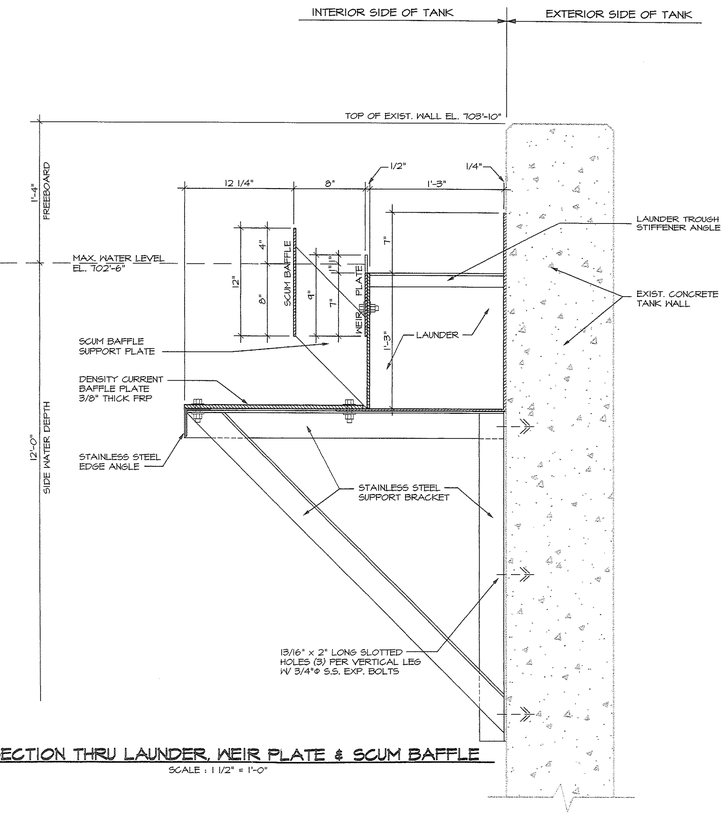


WEIR PLATE DETAIL

SCALE : 3/4" = 1'-0"

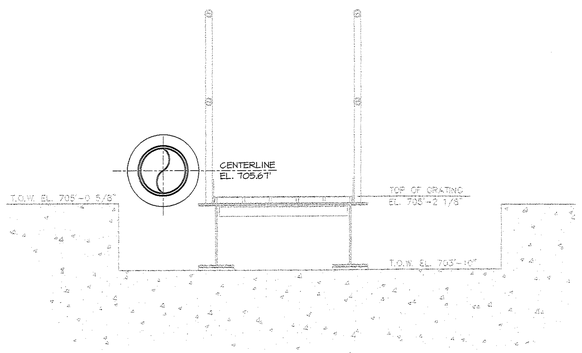


"V" NOTCH WEIR PLATE ELEVATION



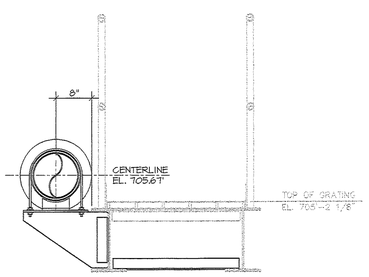
SECTION THRU LAUNDER, WEIR PLATE & SCUM BAFFLE

SCALE : 1 1/2" = 1'-0"



SECTION THRU WALKWAY BRIDGE OVER TANK LOOKING WEST - AT TANK WALL

SCALE : 3/4" = 1'-0"



SECTION THRU EXIST. WALKWAY BRIDGE LOOKING WEST - AT MIDSPAN OF BRIDGE

SCALE : 3/4" = 1'-0"

3/4 DETAILS 04496600

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K.JB	BLR	8/4/99

FILE NO.: 04442401

NO.	REVISIONS	BY	DATE

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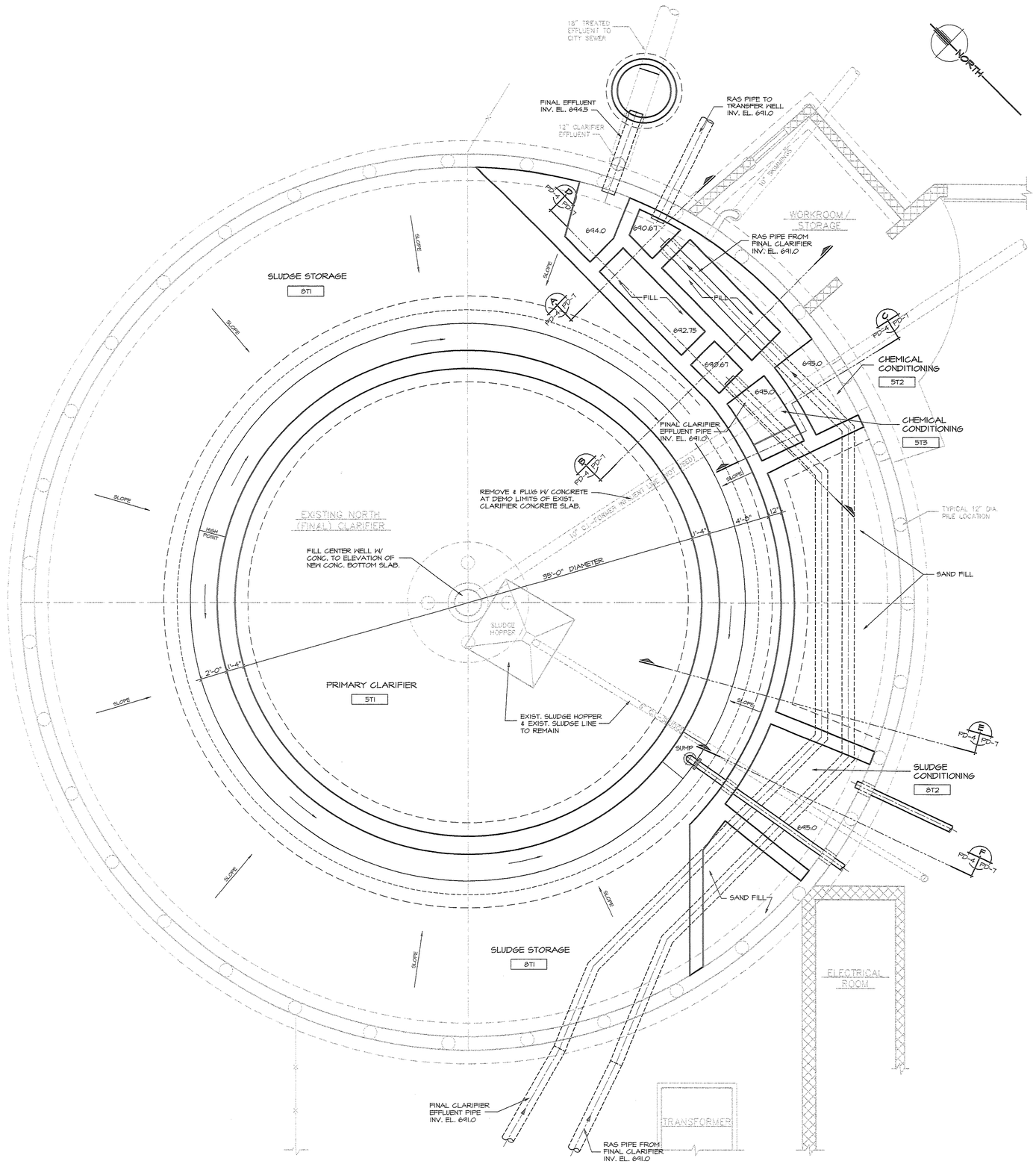
ROCKFORD, MICHIGAN
WASTEWATER IMPROVEMENTS

ROSE & WESTRA, INC.
ENVIRONMENTAL CONSULTANTS
Grand Rapids, Michigan

PROJECT NO. 0003.00949.2

SHEET NO. PD-3



PRIMARY CLARIFIER - LOWER PLAN

EXIST. NORTH CLARIFIER (FINAL) - LOWER PLAN

SCALE : 1/4" = 1'-0"

DRAWN BY	DESIGN BY	DATE
KJB	BLR	6/30/99

FILE NO.: 04441525

NO.	REVISIONS	BY	DATE
	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS		

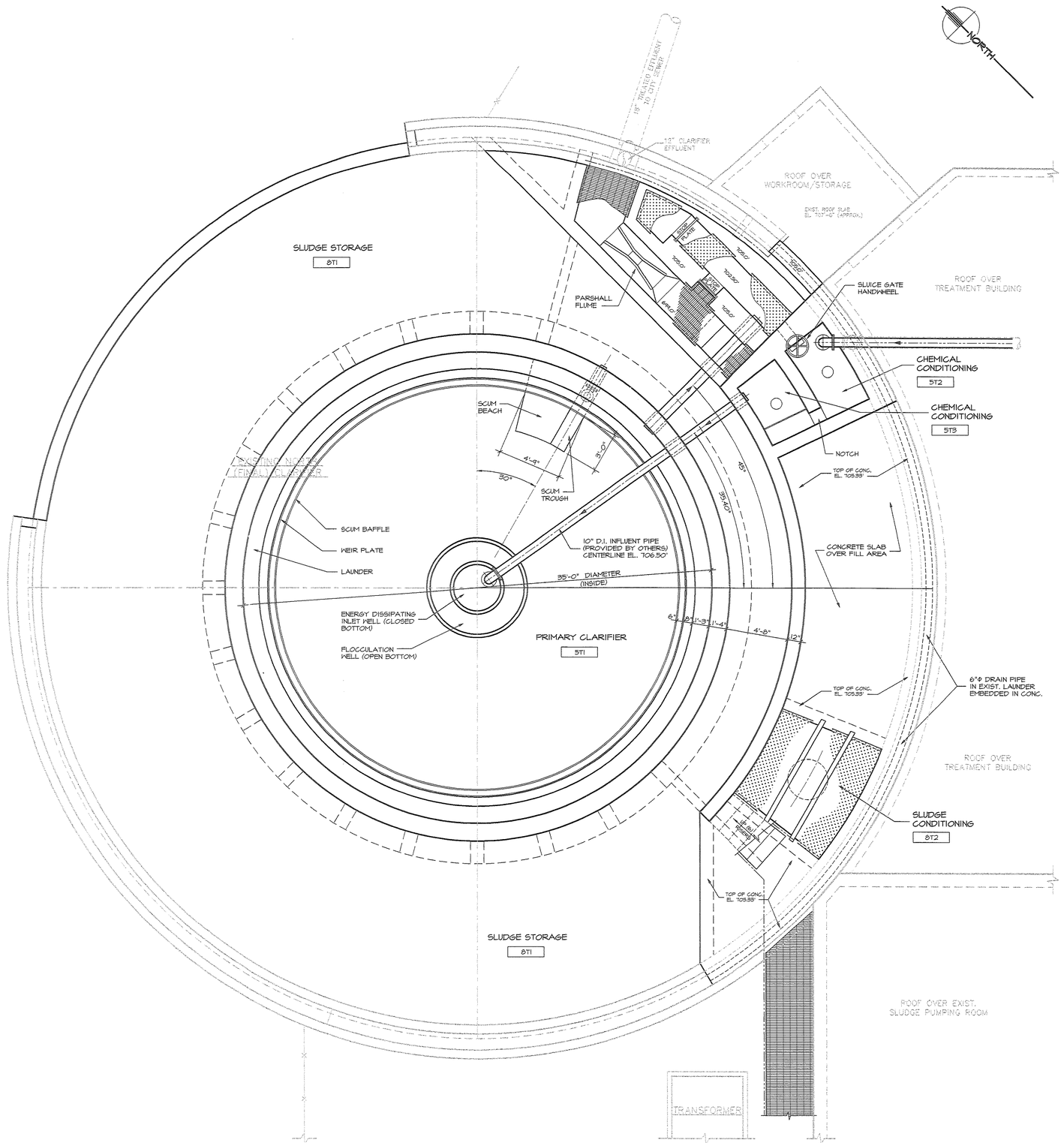
WOLVERINE WORLD WIDE, INC.
ROCKFORD, MICHIGAN
W.W.T.P. MODIFICATIONS

ROSE & WESTRA, INC.
ENVIRONMENTAL CONSULTANTS
Grand Rapids, Michigan

PROJECT NO. 0003.00949.1

SHEET NO. PD-4

WWW_104(e)_015934



PRIMARY CLARIFIER - INTERMEDIATE PLAN

EXIST. NORTH CLARIFIER (FINAL) - INTERMEDIATE PLAN

SCALE: 1/4" = 1'-0"

DRAWN BY	DESIGN BY	DATE
KJB	BLR	8/5/99

FILE NO.: 04442525

NO.	REVISIONS	BY	DATE
	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS		

WOLVERINE WORLD WIDE, INC.
ROCKFORD, MICHIGAN
WASTEWATER IMPROVEMENTS

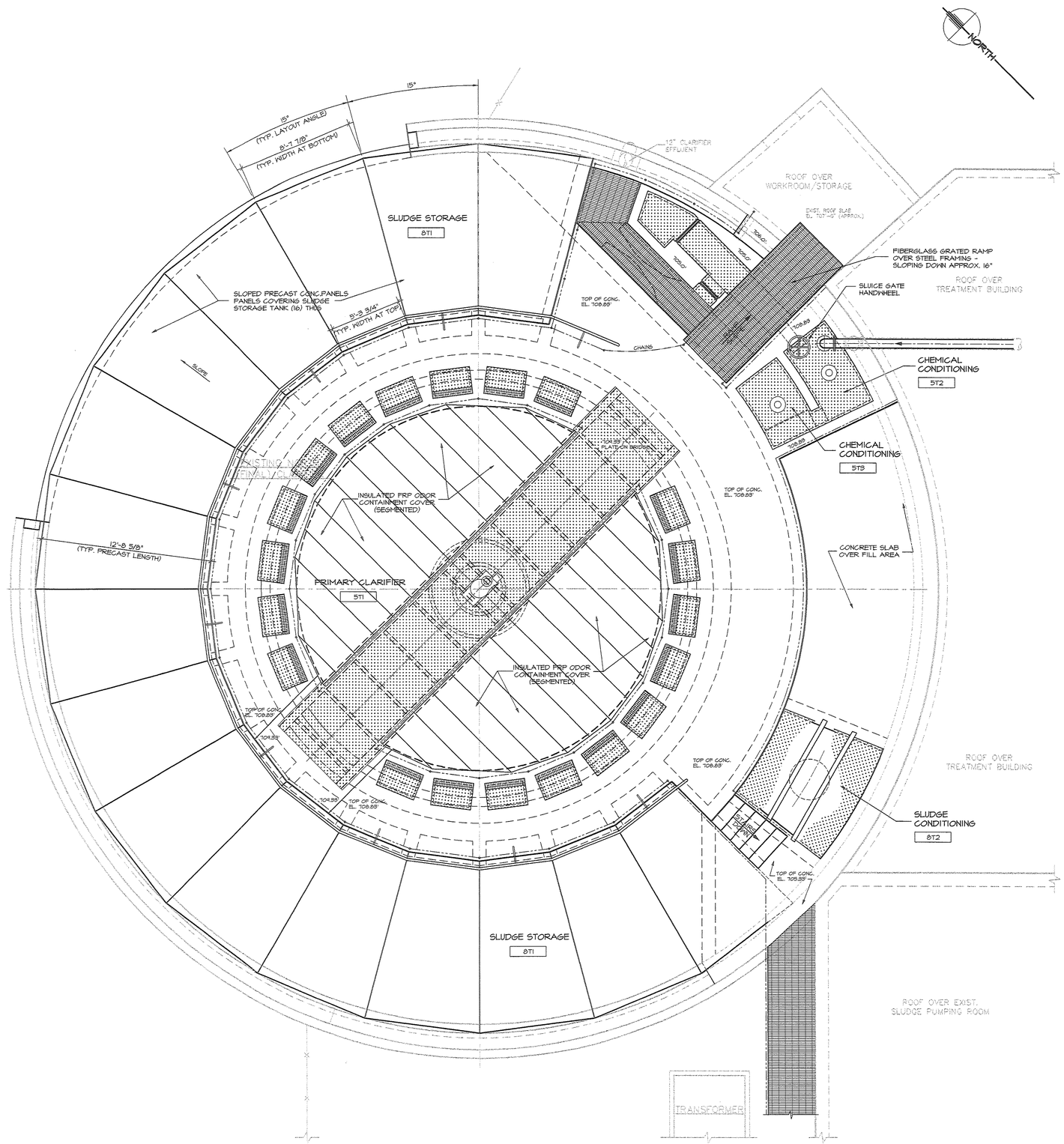
ROSE & WESTRA, INC.
ENVIRONMENTAL CONSULTANTS
Grand Rapids, Michigan

PROJECT NO. 0003.00949.2

SHEET NO. PD-5

XREF : FINALNT

WWW_104(e)_015935



PRIMARY CLARIFIER - UPPER PLAN

EXIST. NORTH CLARIFIER (FINAL) - UPPER PLAN

SCALE : 1/4" = 1'-0"

DRAWN BY	DESIGN BY	DATE
KJB	BLR	8/5/99

FILE NO.: 01442524

NO.	REVISIONS	BY	DATE
	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS		

WOLVERINE WORLD WIDE, INC.
ROCKFORD, MICHIGAN
WASTEWATER IMPROVEMENTS

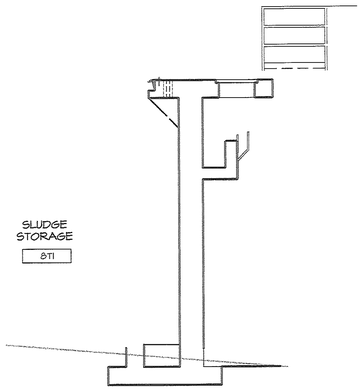
ROSE & WESTRA, INC.
ENVIRONMENTAL CONSULTANTS
Grand Rapids, Michigan

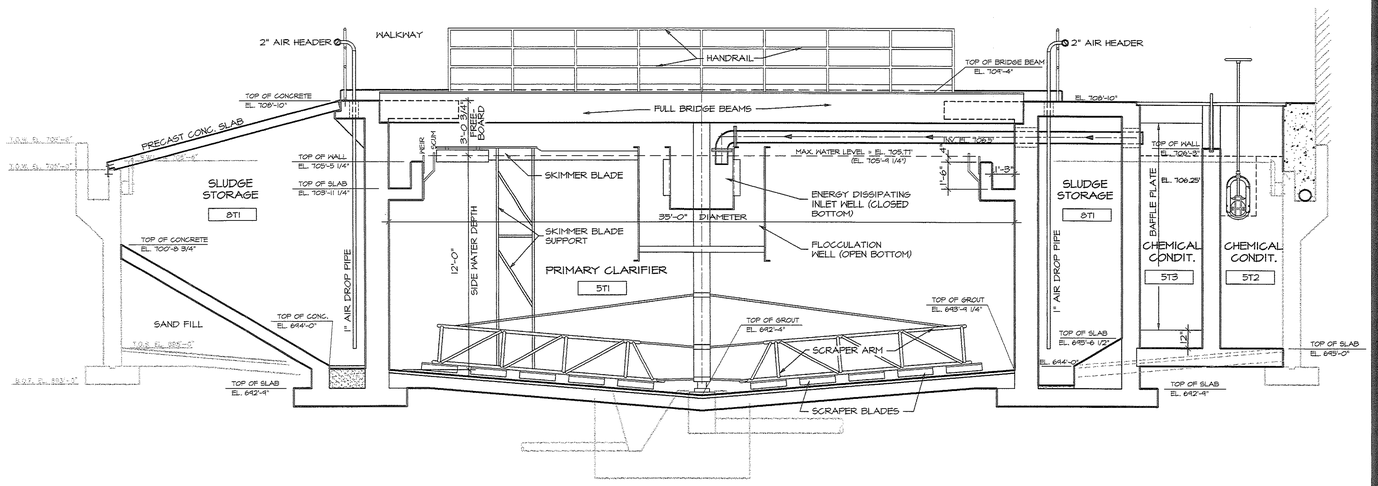
PROJECT NO.
0003.00949.2

SHEET NO.
PD-6

XREF : FINALJIN

WWW_104(e)_015936





SECTION C

SCALE : 1/4" = 1'-0"

DRAWN BY	DESIGN BY	DATE
KJB	BLR	8/5/99

FILE NO.: 04442528

NO.	REVISIONS	BY	DATE

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WOLVERINE WORLD WIDE, INC.
ROCKFORD, MICHIGAN
WASTEWATER IMPROVEMENTS

ROSE & WESTRA, INC.
ENVIRONMENTAL CONSULTANTS
Grand Rapids, Michigan

PROJECT NO.
0003.00949.2

SHEET NO.
PD-7

STATE OF MISSOURI
Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

May 20, 1997

Mr. Harold Bailey
Manager, Environmental Affairs
Wolverine World Wide
810 E. Shepard Avenue
Kirksville, MO 63501

RE: Air Permit Application

Dear Mr. Bailey:

On May 12, 1997 we received your construction permit application for a facility to manufacture shoes, boots and soles. Your Facility/Project No. is 001-0013-005. Charles Ozumba will be reviewing your application.

This facility may require a National Pollutant Discharge Elimination System (NPDES) permit from the Department of Natural Resources' Water Pollution Control Program for any possible discharges from this site or modifications to an existing permit. For assistance concerning a permit of this nature, contact the Northeast Regional Office at (816) 385-2129.

Please be aware that you will be billed for review time as it proceeds at $50.00 per hour. If you have any questions or need additional information, please contact Charles Ozumba at (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM
Permits Section Clerical

TRB

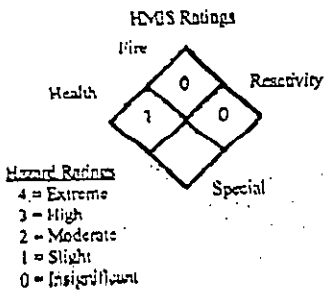
c: Source file

RECYCLED PAPER

Maintenance

1504 "weld"

FORM NO. 7958-D
DATE REVISED: 11/26/97



Material Safety Data Sheet

(Essentially Similar to U.S. Department of Labor Suggested Form For Hazard Communication Compliance)

I. Product Identification

Product Type - ALUMINUM WELDING ELECTRODES AND RODS

Manufacturer - THE ESAB GROUP, INC.

Telephone No. - 1-717-637-8911

Address - 801 Wilson Avenue, P. O. Box 517
Hanover, PA 17331

Emergency No. - 1-717-637-8911

APPROXIMATE COMPOSITION OF ALUMINUM WIRES AND RODS

Product Trade Name	Al	Mn	Cu	Cr	Si	Fe	Mg	Ti	AWS Classification *
L-TEC									
1100 HQ	99	--	<0.2	--	--	X	--	--	ER1100
4043 HQ	94-96	--	<0.5	--	X	X	--	--	ER4043
4047 HQ	86-89	--	<0.5	--	X	X	--	--	ER4047
5183 HQ ❷	93-96	<1	--	<0.5	--	--	X	--	ER5183
5356 HQ ❷	93-96	<0.5	--	<0.5	--	--	X	X	ER5356
5556 HQ ❷	93-96	<1	--	<0.5	--	--	X	X	ER5556
5654 HQ ❷	95-97	--	--	<0.5	--	--	X	X	ER5654

* AWS A5.10 Specification

Note: X Indicates material is present

❷ See Note 2 in Section II

THE ESAB GROUP requests the users of these products to study this Material Safety Data Sheet (MSDS) and become aware of the product hazards and safety information. To promote the safe use of these products a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for these products, and (3) request that such customers notify their employees and customers, for these products, of the same product hazards and safety information.

II. Hazardous Ingredients

MPORTANT: This section covers the materials from which this product is manufactured. The fumes and gases produced iuring normal use of these products are covered in Section V. The term HAZARDOUS should be interpreted as a term equired, and defined by Laws, Statutes or Regulations, and does not necessarily imply the existence of any hazard when he products are used as directed by THE ESAB GROUP.

Material	(CAS No.)	SARA	ACGIH TLV (1994-95) TWA (mg/m³)	OSHA - PEL (1994) TWA (mg/m³)	STEL (mg/m³)
luminum	(7429-90-5)	*	5 (Welding Fume)	5 (Welding Fume)	--
hromium	(7440-47-3)	*	0.5 (Metal)	0.5 (Metal)	--
			0.05 (CrVI)	C 0.1 (as Chromate)	
opper	(7440-50-8)	*	0.2 (Fume)	0.1 (Fume)	--
on	(7439-89-6)		5 (Oxide Fume)	10 (Total Particulate)	--
lagnesium	(1309-48-4)		10 (Oxide Fume)	5 (Respirable)	--
langanese	(7439-96-5)	*	0.2	1 (Fume)	3
ilicon	(7440-21-3)		10 (Dust)	5 (Respirable)	--
itanium	(7440-32-6)		10 (TiO_2)	5 (TiO_2 - Respirable)	--

JOTE: In the ingredients table, an asterisk (*) after the CAS number indicates a toxic chemical subject to the reporting equirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (SARA) and 40 CFR 'art 372.
ome of these products may not contain all of the materials listed. For details of composition, refer to the COMPOSITION ABLE in Section I.
1 the table above, "C" indicates "Ceiling Limit".

JOTE 2 — WARNING: **This product contains or produces a chemical known to the State of California to cause cancer. (California Health & Safety Code §25249.5 et seq.)**

III. Physical Data

s shipped, these products are nonflammable, nonexplosive, nonreactive, and nonhazardous

hysical State: GAS ( ) LIQUID ( ) SOLID (X)

Odor and Appearance: Bright solid wire or rod, odorless.

IV. Fire & Explosion Hazard

Flammable/Explosive: NO (X) YES ( )
Under what conditions: Only the packaging for this product will burn.
Extinguishing Media: This product will not burn. However, welding arcs and sparks can ignite combustible an flammable materials. Use the extinguishing media recommended for the burning materials and fire situation. See ANS Z49.1 "Safety in Welding and Cutting" and "Safe Practices" Code: SP, published by the American Welding Society, P. C Box 351040, Miami, FL 33135, and NFPA 51B "Cutting and Welding Processes", published by the National Fire Protectio Association, Batterymarch Park, Quincy, MA 02269 for additional fire prevention and protection information.

V. Reactivity Data

Stability: Stable (X) Unstable ( ) Polymerization will not occur
Incompatible products: None currently known
Hazardous decomposition products: Welding fumes and gases cannot be classified simply. The composition an quantity of both are dependent upon the material being worked, the process, procedures and consumables usec Other conditions which also influence the composition and quantity of the fumes and gases to which workers may b exposed include: coatings on the material being worked (such as paint, plating or galvanizing), the number of weldin operations and the volume of the work area, the quality and amount of ventilation, the position of the workers hea with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinate hydrocarbon vapors from cleaning or painting activities). When the materials are consumed, the fume and ga decomposition products generated are different in percent and form from the ingredients listed in Section I Decomposition products of normal operation include those originating from the volatilization, reaction or oxidation c the ingredients, plus those from the material being worked and the coatings etc. noted above.

Reasonably expected decomposition products from normal use of these products include a complex of the oxides of th materials listed in Section II, as well as carbon monoxide, carbon dioxide, ozone and nitrogen oxides (refer t "Characterization of Arc Welding Fume" available from the American Welding Society). The only way to determine th true identity of the decomposition products is by sampling and analysis. The composition and quantity of the fumes an gases to which a worker may be overexposed can be determined from a sample obtained from inside the welder helmet, if worn, or in the workers breathing zone. See ANSI/AWS F1.1 "Method for Sampling Airborne Particles Generate by Welding and Allied Processes", available from the American Welding Society.

VI. Physical and Health Hazard Data

Electric arc working may create one or more of the following health or physical hazards. Fumes and gases can b dangerous to your health. Electric shock can kill you. Arc rays can injure eyes and burn skin. Noise can damag hearing. An additional detailed description of the Health and Physical Hazards and their consequences may be found ESAB's publications F52-529 "Precautions and Safe Practices for Electric Welding and Cutting" and F2035. "Precautio and Safe Practices for Gas Welding, Cutting and Heating." You may obtain copies from your local supplier or by writi to the address in Section I.

Route of overexposure: The primary route of entry of the decomposition products is by inhalation. Skin contact, e contact, and ingestion are possible. Absorption by skin contact is unlikely. When these products are used recommended by THE ESAB GROUP, and ventilation maintains exposure to the decomposition products below the lin recommended in this section, overexposure is unlikely.

Effects of acute (short term) overexposure to the gases, fumes and dusts may include irritation of the eyes, lungs, nose a throat. Some toxic gases associated with welding may cause pulmonary edema, asphyxiation, and death. Acu overexposure may include signs and symptoms such as watery eyes, nose and throat irritation, headache, dizzine difficulty in breathing, frequent coughing, or chest pain. The presence of chromium/chromate in fume can ca irritation of nasal membranes and skin..

Pre-existing Medical Conditions Aggravated by Overexposure: Individuals with allergies or impaired respiratory funct may have symptoms worsened by exposure to welding fumes. However, such reaction cannot be predicted due to variation in composition and quantity of the decomposition products.

ffects of chronic (long term) overexposure to air contaminants may lead to their accumulation in the lungs, a condition which may be seen as dense areas on chest X-rays. The severity of the change is proportional to the length of the exposure. The changes seen are not necessarily associated with symptoms or signs of reduced lung function or disease. In addition, the changes on X-rays may be caused by non-work factors such as smoking, etc. Chromium (in some products) is considered carcinogenic. Overexposure to manganese compounds may affect the central nervous system, symptoms of which are langour, sleepiness, muscular weakness, emotional disturbances and spastic gait.

xposure limits for the ingredients are listed in Section II. The 1989 OSHA TWA for welding fume is 5 mg/m³. TLV-TWA's should be used as a guide in the control of health hazards and not as fine lines between safe and excessive concentrations. When these products are used as recommended by THE ESAB GROUP, and the preventive measures taught in this MSDS are followed, overexposure to hazardous substances will not occur.

mergency First Aid Measures: In case of emergency, call for medical aid. Employ first aid technique recommended by the Red Cross. IF BREATHING IS DIFFICULT, give oxygen and call for a physician. FOR ELECTRIC SHOCK, disconnect and turn off the power. If not breathing, begin artificial respiration, preferably mouth-to-mouth. If no detectable pulse, begin Cardio Pulmonary Resuscitation (CPR). Immediately call a physician. FOR ARC BURN, apply cold, clean compresses and call a physician.

Carcinogenic Assessment (NTP Annual Report, IARC Monographs, Other): Chromium must be considered a possible carcinogen under OSHA (29CFR1910.1200). IARC has indicated Chromium and certain of its compounds are probably carcinogenic for humans, but the compounds cannot be specified precisely. Their conclusions were drawn from operations different from welding. Regardless, exposure level must be kept below those levels specified in Section II.

VII. Precautions for Safe Handling and Use/Applicable Control Measures

Read and understand the manufacturer's instructions and the precautionary label on this product. See American National Standard Z-49.1, "Safety in Welding and Cutting", published by the American Welding Society, P. O. Box 351040, Miami, FL 33135 and OSHA Publication 2206 (29 C.F.R. 1910), U.S. Government Printing Office, Washington, D.C. 20402 for more detail on many of the following:

Ventilation: Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases below the TLV's in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes. Avoid arc work in the presence of chlorinated hydrocarbon vapors. Phosgene may be produced by action of the radiant energy of the arc. Avoid arc working of parts coated with phosphate residue (anti-rust, cleaning preparations). Phosphine may be produced.

Respiratory Protection: Use respirable fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV.

Eye Protection: Wear helmet or use face shield with filter lens. As a rule of thumb, start with a shade which is too dark to see the weld zone. Then go to the next lighter shade which gives sufficient view of the weld zone. Provide protective screens and flash goggles, if necessary, to shield others.

Protective Clothing: Wear head, hand and body protection which help to prevent injury from radiation, sparks and electrical shock. See ANSI Z-49.1. At a minimum, this includes welder's gloves and a protective face shield and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the welder not to touch live electrical parts and to insulate himself from work and ground.

Procedure for Cleanup of Spills or Leaks: NOT APPLICABLE

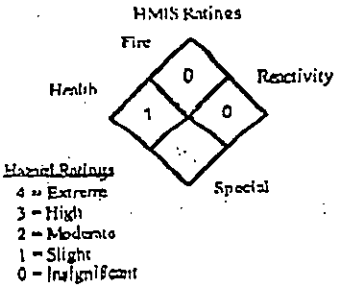
Waste Disposal Method: Prevent waste from contaminating surrounding environment. Discard any product, residue, disposable container, or liner in an environmentally acceptable manner, in full compliance with Federal, State and Local regulations.

he opinions expressed in this MSDS are those of qualified experts within THE ESAB GROUP. We believe that the information contained herein is current as of the date of this MSDS. Since the use of this information and these opinions and the conditions of use of these products are not within the control of THE ESAB GROUP, it is the user's obligation to determine the conditions of safe use of these products..

Maintenance

1505 "Copper"

FORM NO. MSDS #8
DATE REVISED: 01/07/00



Material Safety Data Sheet

(Essentially Similar to U.S. Department of Labor Suggested Form For Hazard Communication Compliance)

I. Product Identification

Product Type - ALL-STATE COPPER BASED BRAZING ALLOYS

Manufacturer - THE ESAB GROUP, INC.

Telephone No. - 1-717-637-8911
1-800-933-7070

Address - 801 Wilson Avenue
Hanover, PA 17331

Emergency No. (CHEMTREC) - 1-717-637-8911
1-800-424-9300

APPROXIMATE COMPOSITION

All-State Product Trade Name	Borax	Boric Acid	%Cu	Fe	%Mn	Si	Sn	%Zn
All-State Low Fuming Bronze (Oxweld 25M)	--	--	55-60	X	<0.5	X	X	38-42
All-State Low Fuming Bronze Flux Coated (Oxweld 25MFC)	X	X	50-60	X	<0.4	X	X	35-40
All-State 41FC	X	X	45-55	X	<0.4	X	X	30-45

NOTE: X Indicates material is present

See Note in Section VI

THE ESAB GROUP requests the users of these products to study this Material Safety Data Sheet (MSDS) and become aware of t product hazards and safety information. To promote the safe use of these products a user should (1) notify its employees, ager and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information each of its customers for these products, and (3) request that such customers notify their employees and customers, for the products, of the same product hazards and safety information.

II. Hazardous Ingredients

IPORTANT: This section covers the materials from which this product is manufactured. The fumes and gases produced during ɔrmal use of these products are covered in Section V. The term **HAZARDOUS** should be interpreted as a term required and efined by Laws, Statutes or Regulations, and does not necessarily imply the existence of any hazard when the products are used s directed by **THE ESAB GROUP**.

laterial	(CAS No.)	SARA	ACGIH TLV (1999) TWA (mg/m^3)	OSHA - PEL (1993) TWA (mg/m^3)	STEL (mg/m^3)
orax	(1303-96-4)		1	1	--
oric Acid	(10043-35-3)		10 (B_2O_3)	15 (B_2O_3 – Total Dust)	--
:opper	(7440-50-8)	*	0.2 (Fume)	0.1 (Fume)	--
on	(7439-89-6)		5 (Oxide Fume)	10 (Total Particulate)	--
'anganese	(7439-96-5)	*	0.2 (Fume)	1 (Fume)	3
;ilicon	(7440-21-3)		10 (Dust)	5 (Respirable)	--
'in	(7440-31-5)		2	2	--
:inc	(7440-66-6)	*	5 (Oxide Fume) 10 (STEL)	5 (Oxide Fume)	10

NOTE: In the Ingredients table, an asterisk (*) after the CAS number indicates a toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (SARA) and 40 CFR Part 372.

III. Physical Data

As shipped, these products are nonflammable, nonexplosive, nonreactive, and nonhazardous

Physical State: Gas ( ) Liquid ( ) Solid (X)

Melting Point: 1600 - 1900°F

Solubility in Water: Metal rod is insoluble; flux coating is slightly soluble

Specific Gravity ($H_2O = 1$): 8.3-8.5

Odor and Appearance: Bare or flux coated bronze colored metal wire, odorless

IV. Fire & Explosion Hazard

Flammable/Explosive NO (X) YES ( )

Under What Conditions: Only the packaging for this product will burn.

Extinguishing Media: This product will not burn; however, welding arcs and sparks can ignite combustible and flammable materials. Use the extinguishing media recommended for the burning materials and fire situation. See ANSI Z49.1 " Safety in Welding and Cutting" and " Safe Practices" Code: SP, published by the American Welding Society, P. O. Box 351040, Miami, FL 33135, and NFPA 51B " Cutting and Welding Processes," published by the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269 for additional fire prevention and protection information.

V. Reactivity Data

Stability: Stable (X) Unstable ( ) Polymerization will not occur.

Incompatibility (Materials to Avoid): None currently known.

Hazardous Decomposition Products: Brazing fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the material being worked, the process, procedures and consumables used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the material being worked (such as paint, plating or galvanizing), the number of welding operations and the volume of the work area, the quality and amount of ventilation, the position of the workers head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning or painting activities). When the materials are consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section II. Decomposition products of normal operation include those originating from the volatilization, reaction or oxidation of the ingredients, plus those from the material being worked and the coatings etc. noted above.

Reasonably expected decomposition products from normal use of these products include a complex of the oxides of the materials listed in Section II, as well as carbon monoxide, carbon dioxide, ozone and nitrogen oxides (refer to " Characterization of Arc Welding Fume" available from the American Welding Society). The only way to determine the true identity of the decomposition products is by sampling and analysis. The composition and quantity of the fumes and gases to which a worker may be overexposed can be determined from a sample obtained from inside the welder' s helmet, if worn, or in the workers breathing zone. See ANSI/AWS F1.1 " Method for Sampling Airborne Particles Generated by Welding and Allied Processes," available from the American Welding Society.

VI. Physical and Health Hazard Data

Brazing may create one or more of the following health or physical hazards. Fumes and gases can be dangerous to your health. Arc rays can injure eyes and burn skin. Noise can damage hearing. Brazing alloys are frequently used with a fluoride type flux. If applicable, flux fume should be considered in evaluation of hazards. In addition, a detailed description of the Health and Physical Hazards and their consequences may be found in ESAB' s publications F52-529 " Precautions and Safe Practices for Electric Welding and Cutting" and F2035 " Precautions and Safe Practices for Gas Welding, Cutting and Heating." You may obtain copies from your local supplier or by writing to the address in Section I.

Route of overexposure: The primary route of entry of the decomposition products is by inhalation. Skin contact, eye contact, and ingestion are possible. Absorption by skin contact is unlikely. When these products are used as recommended by THE ESAB GROUP, and ventilation maintains exposure to the decomposition products below the limits recommended in this section, overexposure is unlikely.

Effects of acute (short-term) overexposure to the gases, fumes and dusts may include irritation of the eyes, lungs, nose and throat. Some toxic gases associated with welding may cause pulmonary edema, asphyxiation, and death. Acute overexposure may include signs and symptoms such as watery eyes, nose and throat irritation, headache, dizziness, difficulty in breathing, frequent coughing, or chest pain. The presence of copper and zinc in fume can cause metal fume fever. Short term symptoms may include a metallic taste in the mouth, dryness or irritation of the throat followed by coughing, shortness of breath, nausea fever, body ache, and chills. Excessive inhalation of zinc oxide fume may produce symptoms known as zinc shakes, an acute self limiting condition without recognized complications. Symptoms usually disappear within 24 hours.

Pre-existing Medical Conditions Aggravated by Overexposure: Individuals with allergies or impaired respiratory function may have symptoms worsened by exposure to brazing fumes; however, such reaction cannot be predicted due to the variation in composition and quantity of the decomposition products.

Effects of chronic (long-term) overexposure to air contaminants may lead to their accumulation in the lungs, a condition which may be seen as dense areas on chest X-rays. The severity of the change is proportional to the length of the exposure. The changes seen are not necessarily associated with symptoms or signs of reduced lung function or disease. In addition, the changes on X-rays may be caused by non-work factors such as smoking, etc. Long term exposure to brazing fume, gases, or dust may contribute to pulmonary irritation or pneumoconiosis. Overexposure to manganese compounds may affect the central nervous system, symptoms of which are languor, sleepiness, muscular weakness, emotional disturbances, and spastic gait.

Exposure limits for the ingredients are listed in Section II. The 1989 OSHA TWA for welding fume is 5 mg/m³. TLV- TWAs should be used as a guide in the control of health hazards and not as fine lines between safe and excessive concentrations. When these products are used as recommended by THE ESAB GROUP, and the preventive measures taught in this MSDS are followed, overexposure to hazardous substances will not occur.

Emergency First Aid Measures: In case of emergency, call for medical aid. Employ first aid technique recommended by the Red Cross. IF BREATHING IS DIFFICULT, give oxygen and call for a physician. If breathing has stopped, perform artificial respiration. Summon medical aid immediately. FOR ARC BURN, apply cold, clean compresses and call a physician.

Carcinogenic Assessment (NTP Annual Report, IARC Monographs, Other): NONE

WARNING: This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code §25249.5 et seq.)

VII. Precautions for Safe Handling and Use/Applicable Control Measures

Read and understand the manufacturer's instructions and the precautionary label on this product. See American National Standard Z-49.1, "Safety in Welding and Cutting," published by the American Welding Society, P. O. Box 351040, Miami, FL 3313 and OSHA Publication 2206 (29 C.F.R. 1910), U.S. Government Printing Office, Superintendent of Documents, P.O. Box 37195 Pittsburgh, PA 15250-7954 for more detail on many of the following:

Respiratory Protection: Use respirable fume respirator or air supplied respirator when welding in confined spaces or wher local exhaust or ventilation does not keep exposure below TLV.

Eye Protection: Wear helmet or use face shield with filter lens. As a rule of thumb, start with a shade which is too dark see the weld zone. Then go to the next lighter shade which gives sufficient view of the weld zone. Provide protective screen and flash goggles, if necessary, to shield others.

Ventilation: Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases below the TLV's in th worker's breathing zone and the general area. Train the welder to keep his head out of the fumes. Adequate ventilatio should be used when material is in dusty or molten state.

Protective Clothing and Equipment: Wear head, hand, and body protection which help to prevent injury from radiatio sparks and electrical shock. See ANSI Z-49.1. At a minimum, this includes welder's gloves and a protective face shield a may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the welder not touch live electrical parts and to insulate himself from work and ground.

Procedure for Cleanup of Spills or Leaks: Recyclable/solid. Vacuuming recommended for accumulated dusts. Confo with Federal, State, local and OSHA regulatory statutes.

Waste Disposal Methods: Prevent waste from contaminating surrounding environment. Discard any product, resid disposable container, or liner in an environmentally acceptable manner, in full compliance with Federal, State, and Lo regulations.

use of these products are not within the control of THE ESAB GROUP, it is the user's obligation to determine the conditions of safe use of these products.

Maintenance

1508

electro

ESAB Welding & Cutting Products

Form No. : 7946-H

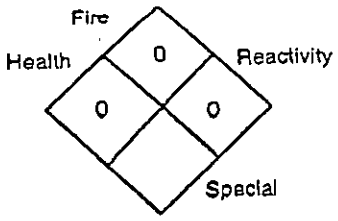
Date: October, 1999

MATERIAL SAFETY DATA SHEET

(Essentially Similar to U.S. Department of Labor Suggested Form For Hazard Communication Standard Compliance)

SECTION I. PRODUCT IDENTIFICATION

NFPA Rating



4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

PRODUCT TYPE Pure, Thoriated, Zirconia, Ceria and Lanthana Tungsten Electrodes for Gas Tungsten Arc Welding and Plasma Arc Welding and Cutting

PRODUCT NAME ESAB Tungsten Electrodes

CLASSIFICATION AWS A5□2, EWP, EWTh-1, EWTh-2, EWZr EWCe-2, EWG (1□5% Lanthana)

MANUFACTURER/SUPPLIER ESAB Welding & Cutting Products

ADDRESS P O Box 100545, Florence, SC 29501-0545

TELEPHONE NO. (843) 669-4411

CHEMTREC: 800-424-9300

ESAB requests the users of this product to study this Material Safety Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for the product, and (3) request such customers to notify their employees and customers for the product of the same product hazards and safety information.

SECTION II. HAZARDOUS INGREDIENTS*

IMPORTANT! This section covers the materials from which this product is manufactured. The fumes and gases produced during welding with normal use of this product are covered in Section V. Thorium dioxide is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

All applicable requirements for radioactive materials (including exposure limits) contained in 29 CFR 1910□96 (OSHA) and 10 CFR Parts 20 and 40 (NRC) should be met□

Material (CAS No.)	Weight %	Exposure Limits 1989 OSHA PEL-TWA (Revoked)	Exposure Limits 1993/1971 OSHA TWA
Tungsten (7440-33-7)	98-100	1 mg/m³ soluble (3 mg/m³ STEL) 5 mg/m insoluble (10 mg/m³ STEL)	None established
Thorium Dioxide (1314-20-1)	0-2	None currently established	None currently established
or			
Zirconium Oxide (1314-23-4)	0-1	5 mg/m³ (10 mg/m³ STEL)	5 mg/m³
or			
Cerium Dioxide (1345-13-7)	0-2	None currently established	None currently established
or			
Lanthanum Dioxide (1312-81-8)	0-2	None currently established	None currently established

* The term "hazardous" should be interpreted as a term required and defined in the OSHA Hazard Communications Standard (29CFR 1910. 1200) and does not necessarily imply the existence of any hazard. Some of the products listed may not contain all of the ingredients shown in Section II. Typical analyses can be found in the appropriate AWS Specification or from your supplier.

STATE RIGHT-TO-KNOW

CALIFORNIA Proposition 65

This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer (California Health & Safety Code §25249.5 et seq.)

Carbon Monoxide
Thorium Dioxide

MASSACHUSETTS Right-to-Know Substance List (MSL)

This product contains the following substances on the MSL:

Hazardous Substances: Tungsten, Zirconium Oxide
Extremely Hazardous Substances: Thorium Dioxide
Carcinogenic Substances: Thorium Dioxide

NEW JERSEY Right-to-Know Hazardous Substance List (NJHSL)

This product contains the following substances on the NJHSL:

Hazardous Substances: Tungsten
Environmental Hazardous Substances: None
Special Health Hazards: Thorium Dioxide

PENNSYLVANIA Right-to-Know Hazardous Substance List

This product contains the following substances whose level requires reporting:

Hazardous Substances: Tungsten
Special Hazardous Substances: Thorium Dioxide
Environmental Hazardous Substances: Thorium Dioxide

SECTION III. PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point, 760mm Hg	5660°C	Freezing Point:	3410+/-20°C
Specific Gravity:	19.3		
Appearance and Odor:	Gray metal rod, no odor.		
Solubility in Water:	Insoluble		

SECTION IV. FIRE & EXPLOSION HAZARD DATA

Non-flammable. Welding arc and sparks can ignite combustible and flammable products. See ANSI Z49.1 "Safety in Welding and Cutting" (referenced in Section VII) for fire prevention and protection information.

SECTION V. REACTIVITY DATA

Hazardous Decomposition Products

Tungsten electrodes are non-consumable. However, some loss of electrode metal may occur depending on welding conditions. The composition and quantity of welding fumes and gases are dependent upon the metal being welded, the welding process, procedures, filler metals and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coating on the metal being heated (such as paint, plating, or galvanizing), the number of welders and the volume of the work area, the quality and amount of ventilation, the position of the welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities).

When the electode is used, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section II. Decomposiion products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in Section II, plus those from the base metal and coating, etc., as noted above.

Gaseous reaction products from the welding arc may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by radiation from the arc.

One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the welder's helmet if worn or in the worker's breathing zone. See ANSI/AWS F1.1 "Method for Sampling Airborne Particles Generated by Welding and Allied Processes" available from the American Welding Society, P.O.Box 351040, Miami, FL 33135.

SECTION VI. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: The ACGIH 1988-89 recommended limit for welding fume, not otherwise classified (NOC) is 5 mg/m³. TLV-TWA's should be used as a guide in the control of health hazards and not as fine lines between safe and dangerous concentrations. See Section V for specific fume constituents which may modify this TLV-TWA.

PREEXISTING MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Allergic reaction is possible in sensitive individuals; however, such reaction cannot be predicted due to variation in composition and quantity of the decomposed products.

EFFECTS OF OVEREXPOSURE: Electric arc welding or oxy-fuel gas processes may create one or more of the following hazards.

- **FUMES & GASES** can be dangerous to your health. Primary route of entry is by inhalation.

  Short term (acute) overexposure to welding fumes may result in discomfort such as dizziness, nausea, or dryness or irritation of the nose, throat, or eyes. Although the inhalation of tungsten has the potential for causing transient or permanent lung damage, it is generally considered to exhibit a low degree of toxicity. Thorium is a naturally occurring radioactive element. Its primary hazard lies in inhalation of dust/fumes. Normal handling of these electrodes is not expected to result in any significant radiation exposure. Considerable experience in refining and use of thorium has not revealed any adverse effects from industrial exposure.

  Long term (chronic) overexposure to welding fumes can lead to siderosis (iron deposits in lung) and affect pulmonary function.

- **ARC RAYS** can injure eyes and burn skin. **HEAT RAYS** (infrared radiation from flame or hot metal) can injure eyes.

- **ELECTRIC SHOCK** can kill.
- **NOISE** can damage hearing.
- **CARCINOGENIC ASSESSMENT:** Thorium dioxide has been identified as a carcinogen by NTP, IARC and others. Evidence for its ability to cause cancer has come solely from its internal medical use.
- **EMERGENCY FIRST AID PROCEDURES:** Call for medical aid. Employ first aid techniques recommended by the American Red Cross. IF-BREATHING IS DIFFICULT, give oxygen. Call a physician. IF NOT BREATHING, begin artificial respiration, preferably mouth-to-mouth. If no detectable pulse, begin external heart massage. Immediately call a physician.

SECTION VII. PRECAUTIONS FOR SAFE HANDLING AND USE

Read and understand the manufacturer's instructions and the precautionary label on the product. See American National Standard Z49.1, Safety in Welding and Cutting, published by the American Welding Society, P.O. Box 351040, Miami, FL 33135; OSHA Publication 2206 (29CFR1910), U.S. Government Printing Office, Washington, DC 20402; and ESAB's publications 52-529 and 2035 for more details on many of the following:

- **VENTILATION:** Use enough ventilation, local exhaust at the arc or both, to keep the fumes and gases below TLVs in the worker's breathing zone and the general area. Train the welder to keep his head out of fumes. Use respirable fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV. Select as per OSHA 29 CFR 1910.134.
- **EYE PROTECTION:** Wear helmet, goggles or use face shield with filter lens. As a rule of thumb, start with a shade that is too dark to see the weld zone and then go to the next lighter shade (See ANSI Z49.1). Provide protective screens and flash goggles, if necessary, to shield others.
- **PROTECTION CLOTHING:** Wear hand, head, and body protection which help to prevent injury from radiation, sparks. See ANSI Z49.1. At a minimum this includes welder's gloves and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Welder should be trained not to touch live electrical parts and to insulate himself from work and ground.
- **WASTE DISPOSAL:** Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with federal, state, and local regulations.

Prepared by Manager, Product Safety

For additional copies, order from your ESAB equipment supplier or from Customer Service Department, ESAB Welding & Cutting Products, P O Box 100545, Florence, SC 29501-0545. Tel. (843) 664-5540; Fax (843) 664-5538.

In Canada, order from ESAB Canada, 6010 Tomken Road, Mississauga, Ontario L5T 1X9. Tel (905) 670-0220; Fax (905) 363-8841.

1508 C64

Material Safety Data Sheet

Material Name: C 64 EMULSION CLEANER ID: 232615

*** Section 1 - Chemical Product and Company Identification ***

Product Trade Name C 64 EMULSION CLEANER

Manufacturer Information

Henkel Surface Technologies
32100 Stephenson Highway
Madison Heights, MI 48071

Contact Phone: (248) 583-9300

Chemtrec Emergency # (800) 424-9300

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
64741-44-2	Distillates, petroleum, straight run middle	>80
Proprietary	Amine Soap(s)	1-10
68608-26-4	Sodium petroleum sulfonate	1-10
102-71-6	Triethanolamine	1-10
69227-22-1	Alcohols, C10-16, ethoxylated propoxylated	1-10

*** Section 3 - Hazards Identification ***

Emergency Overview:

CAUTION! Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis. This product may cause irritation to the eyes.

Eye Contact:

This product may cause irritation to the eyes.

Skin Contact:

Prolonged and/or repeated skin contact with this product may cause irritation.

Skin Absorption:

No information available for the product.

Ingestion:

Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Small amounts of this product, if aspirated into the lungs, may cause mild to severe pulmonary injury.

Inhalation:

Inhalation of vapors or mists of the product may be irritating to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.

Medical Conditions Aggravated by Exposure:

Pre-existing eye, skin and respiratory disorders.

*** Section 4 - First Aid Measures ***

Eye Contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact:

For skin contact, wash immediately with soap and water. If irritation persists, get medical attention.

Ingestion:

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

Inhalation:

If symptoms are experienced, remove source of contamination or move victim to fresh air. Call a physician if symptoms develop or persist.

First Aid: Notes to Physician

This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.

Material Safety Data Sheet

Material Name: C 64 EMULSION CLEANER

ID: 232615

*** Section 5 - Fire Fighting Measures ***

Flash Point:	>260°F	Method Used:	Calculated	Flammability Classification:	Non-flammable
Upper Flammable Limit (UFL):	Not applicable	Lower Flammable Limit (LFL):	Not applicable		

Fire & Explosion Hazards:

This product is combustible at high temperatures.

Decomposition Products:

Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Decomposition of this product may yield oxides of sulfur and nitrogen.

Extinguishing Media:

Dry chemical, foam, carbon dioxide, water fog.

Fire-Fighting Instructions:

Firefighters should wear full protective clothing including self contained breathing apparatus.

*** Section 6 - Accidental Release Measures ***

Containment Procedures:

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Eliminate ignition sources including sources of electrical, static or frictional sparks.

Clean-Up Procedures:

Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of collected material according to regulation.

*** Section 7 - Handling and Storage ***

Handling Procedures:

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Do not take internally. For industrial use only. Use this product with adequate ventilation.

Storage Procedures:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers. Manufacturer recommends storing above 40 °F. Thaw and mix thoroughly if frozen.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines:

A: General Product Information

Keep formation of airborne mists to a minimum. If oil mists are generated, observe the OSHA exposure limit of 5 mg/m3.

B: Component Exposure Limits

Triethanolamine (102-71-6)

ACGIH: 5 mg/m3 TWA

Engineering Controls:

Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

Material Safety Data Sheet

Material Name: C 64 EMULSION CLEANER

ID: 232615

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face Protective Equipment:

Wear safety glasses; chemical goggles (if splashing is possible).

Skin Protection:

Use impervious gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

Respiratory Protection:

If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

Personal Protective Equipment:

Eyewash fountains and emergency showers are required.

*** Section 9 - Physical & Chemical Properties ***

Physical State:	Liquid	Appearance:	Amber
Odor:	Petroleum	Vapor Pressure:	<.10
Vapor Density:	Not applicable	Boiling Point:	260°F (126 °C)
Freezing Point:	Not determined	Specific Gravity:	.880 @60°F 16°C)
pH:	8.100	Viscosity:	Not determined
VOC:	7.2 lbs/gal	Solubility Water:	Soluble emulsion
Evaporation Rate:	Not determined	Percent Volatile:	Not determined
Percent Solids:	100		

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Keep away from heat, ignition sources and incompatible materials.

Incompatibility:

This product may react with strong acids, bases and oxidizing agents.

Decomposition Products:

Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Hazardous Polymerization:

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity:

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Distillates, petroleum, straight run middle (64741-44-2)
Inhalation LC50 Rat : 1700 mg/m3/4H
Triethanolamine (102-71-6)
Oral LD50 Rat : 4920 uL/kg
Oral LD50 Mouse : 5846 mg/kg
Dermal LD50 Rabbit : >20 mL/kg

Material Safety Data Sheet

Material Name: C 64 EMULSION CLEANER

ID: 232615

Carcinogenicity:

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Chronic Toxicity

No information available for the product.

Epidemiology:

No information available for the product.

Neurotoxicity:

No information available for the product.

Mutagenicity:

No information available for the product.

Teratogenicity:

No information available for the product.

Other Toxicological Information:

None available.

*** Section 12 - Ecological Information ***

Ecotoxicity:

A: General Product Information

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Triethanolamine (102-71-6)

Test & Species		Conditions
LC50 (24 hr) goldfish	5000 mg/L.	

Environmental Fate:

No data available for this product.

*** Section 13 - Disposal Considerations ***

US EPA Waste Numbers & Descriptions:

A: General Product Information

Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions:

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Please refer to the container label for transportation information.

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Material Safety Data Sheet

Material Name: C 64 EMULSION CLEANER

ID: 232615

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No Reactive: No

State Regulations

A: General Product Information

No information available for the product.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Distillates, petroleum, straight run middle	64741-44-2	No	No	No	No	Yes	No
Triethanolamine	102-71-6	No	Yes	Yes	Yes	No	Yes

Other Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Distillates, petroleum, straight run middle	64741-44-2	Yes	Yes	Yes
Triethanolamine	102-71-8	Yes	Yes	Yes
Sodium petroleum sulfonate	68608-26-4	Yes	Yes	Yes
Alcohols, C10-16, ethoxylated propoxylated	69227-22-1	Yes	Yes	No

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Triethanolamine	102-71-6	1% Item 1621 (1663)

*** Section 16 - Other Information ***

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0 Pers. Prot.:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; NFPA = National Fire Protection Association; HMIS = Hazardous Material Identification System; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Henkel Surface Technologies bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

Contact: John Davies
Contact Phone: (248) 583-9300

Material Safety Data Sheet

Material Name: C 64 EMULSION CLEANER

ID: 232615

This is the end of MSDS # 232615

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DIVERSIFIED BRANDS

SECTION I
PRODUCT IDENTIFICATION

KRYLON Sprayon

MATERIAL SAFETY DATA SHEET

(1511) "electrical"

SHERWIN-WILLIAMS
DIVERSIFIED BRANDS, INC.
KRYLON/SPRAYON INDUSTRIAL PRODUCTS
31500 SOLON ROAD
SOLON, OH 44139

EMERGENCY TELEPHONE NO.
(216) 566-2917
INFORMATION TELEPHONE NO.
(800) 777-2966 SPRAYON INDUSTRIAL
(800) 247-3266 KRYLON INDUSTRIAL

DATE OF PREPARATION
17 - AUG - 98

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Electrical - Electronic Products - 2

ELECT2/ISL

Maintenance

SECTION II CAS No.	HAZARDOUS INGREDIENT (percent by weight)	ACGIH TLV <STEL>	OSHA PEL <STEL>	Units	Vapor Pressure (mm Hg)	S00748 Safety Solv & Degr. II	S00848 Flash Free Safety Solv	S02020 Electronic Cleaner	S2003C Circuit Cooler	S02008 Duster	S02202 Contact & Tuner Clnr	S20848 Flash Free Safety Solv			
79-01-6 §	Trichloroethylene	50	100 <100>	PPM	57.8		98					98			
811-97-2	1,1,1,2-Tetrafluoroethane	Not Established			760.0			35	100						
75-37-6	1,1-Difluoroethane	Not Established			760.0					65					
1717-00-6	1,1-Dichloro-1-fluoroethane	Not Established			527.0	93					97				
67-56-1 §	Methanol	200 <250>	200 <250>	PPM (Skin)	92.0	4									
67-63-0	2-Propanol	400 <500>	400 <500>	PPM	33.0			5							
115-10-6	Dimethyl Ether	Not Established			760.0					35					
124-38-9	Carbon Dioxide	5000	5000	PPM		3	3				3	3			
1717-00-6	1,1-Dichloro-1-fluoroethane	Not Established			527.0	93					97				
	Weight per Gallon (lbs.)					10.01	12.04	11.12	10.05	6.63	10.23	12.04			
	VOC as a percent by weight per BAAQMD Rule 49					97	97.5	100	100	100	97	97.5			
	VOC (Volatile Organic Compounds) Total - lbs./gal.					0.40	11.73	0.55		2.32		11.73			
	Flash Point (°F)					52	None	53	None	-20	None	None			
	HMIS (NFPA) Rating (health - flammability - reactivity)					3 3 0	2 3 0	2 3 0	1 3 0	2 4 0	2 3 0	2 3 0			

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

→→→ MSDS Text Page Follows →→→

Section III — PHYSICAL DATA

PRODUCT WEIGHT	– See TABLE	*EVAPORATION RATE*	– Faster than Ether
SPECIFIC GRAVITY	– .80-1.45	*VAPOR DENSITY*	– Heavier than Air
BOILING RANGE	– <0–188 °F	*MELTING POINT*	– N.A.
		SOLUBILITY IN WATER	– N.A.

Section IV — FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION *FLASH POINT* See Table *LEL* 3.4 *UEL* 27.0

Not Applicable

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES

Isolate from heat, electrical equipment, sparks, and open flame. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention. Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed comtainers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section V — HEALTH HAZARD DATA

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards

EFFECTS OF OVEREXPOSURE:

Irritation of eyes, skin and respiratory system. In a confined area vapors in high concentration may cause headache, nausea or dizziness. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Redness and itching or burning sensation may indicate eye or excessive skin exposure. Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
If on SKIN: Wash affected area thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.
If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
If SWALLOWED: For products S02202, S00748, S02020, S02003C, S02008 and S00202: Get medical attention. For products S20848 and S00848: Never give anything by mouth to an unconscious person. Give conscious patient several glasses of water. If vomiting is not spontaneous, induce vomiting by having the patient gently touch the back of his throat with a finger. Keep airway clear. Seek medical attention.

CHRONIC Health Hazards

No ingredient in these products is an IARC, NTP or OSHA listed carcinogen.

Mice exposed to trichloroethylene developed liver tumors in several laboratory studies, however, other animals studies and all human studies have found no association between trichloroethylene and cancer.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, cardiovascular, nervous and respiratory systems.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section VI — REACTIVITY DATA

STABILITY – Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Hydrogen Chlroide

HAZARDOUS POLYMERIZATION — Will Not Occur

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbant.

WASTE DISPOSAL METHOD

Waste from these products as packaged are not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. However, waste generated from usage o these products may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261 and must be evaluated for appropriate EPA waste numbers.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section VIII — PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

PROTECTIVE GLOVES

None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

Section IX — PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. Consult NFPA Code. Use approved Bonding and Grounding procedures. Contents under pressure. Do not puncture, incinerate, or expose to temperatures above 120°F. Heat from sunlight, radiators, stoves, hot water and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section X — OTHER REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65

WARNING: S20848 and S00848 contain a chemical(s) known to the State of California to cause cancer.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

Maintenance

1513 "Bare"

MATERIAL SAFETY DATA SHEET

BARE KNUCKLES Ultra Stripper

Date Prepared: 10/21/1997
Date Revised: 11/25/1997

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name/Use: BARE KNUCKLES Ultra Stripper

MANUFACTURER
The Butcher Company
67 Forest Street
Marlborough, MA 01752-3012

Butcher Telephone Number: 800-225-9475
Emergency Telephone (24 hours): 800-228-5635 Ext 118

2. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS NO.	% BY WEIGHT
2-Butoxyethanol	111-76-2	10 – 25
Ethanolamine	141-43-5	10 – 25
Potassium hydroxide	1310-58-3	1 – 3
Sodium dodecylbenzene sulfonate	25155-30-0	1 – 1.5

See Section 8 for Exposure Limits *NA - Not Applicable*

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Clear, Red Liquid. Ammonia Odor. Causes Eye and Skin Burns. Harmful if Swallowed. May be Harmful if Inhaled.

POTENTIAL HEALTH EFFECTS *(See Section 11 for Toxicological Information)*

PRIMARY ROUTE(s) OF EXPOSURE: X Eye X Skin Contact ___ Skin Absorption X Inhalation X Ingestion

EFFECTS OF ACUTE EXPOSURE

EYES:
Causes eye burns. Symptoms may include pain, tearing, redness, and eye injury.

SKIN:
Causes skin burns. Symptoms may include pain, redness, swelling, scarring, and skin damage.

INHALATION:
May be harmful if inhaled. High concentrations of vapor or mist may cause nose, throat and respiratory tract irritation. Symptoms may include coughing, wheezing and shortness of breath. High concentrations of vapor or mist may also cause central nervous system effects including headache, dizziness and nausea.

INGESTION:
Harmful if swallowed. May cause mouth, throat and stomach burns. Symptoms may include nausea, vomiting, diarrhea, and severe stomach pain. May also cause central nervous system effects including headache, dizziness and weakness.

EFFECTS OF CHRONIC EXPOSURE:
Prolonged inhalation of high concentrations of concentrated alkaline materials above exposure limits (See Section 8, Exposure Controls/Personal Protection) can cause respiratory tract injury.

MEDICAL CONDITIONS AGGRAVATED:
May aggravate pre-existing eye, skin and respiratory conditions.

4. FIRST AID MEASURES

EYES:
Immediately flush eyes with plenty of water while holding eyelids apart. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not put any medication in the victim's eyes unless instructed by a physician. Get immediate medical attention.

SKIN:
Immediately flush with plenty of water for at least 15 minutes, then wash with soap and water. Immediately remove contaminated clothing. Get medical attention if irritation develops or persists. Thoroughly wash (or discard) clothing before reuse. Destroy contaminated shoes.

INHALATION:
Remove to fresh air. If not breathing, give respiration; if breathing is difficult, give oxygen (by trained personnel only). Get immediate medical attention.

INGESTION:
Do not induce vomiting. Rinse mouth out with water. Drink large quantities of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

FLASH POINT AND METHOD: >200°F 93°C TCC

FLAMMABLE LIMITS:
Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

EXTINGUISHING MEDIA:
Use extinguishing media appropriate for surrounding fire.

HAZARDOUS COMBUSTION PRODUCTS:
Normal products of combustion (carbon monoxide and carbon dioxide) and nitrogen oxides.

FIRE AND EXPLOSION HAZARDS:
None known.

FIRE FIGHTING INSTRUCTIONS:
This product is not flammable. As in any fire, MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear should be worn.

6. ACCIDENTAL RELEASE MEASURES

See Section 8, Exposure Controls/Personal Protection and Section 3, Hazard Identification. Floors may be slippery. Use care to avoid falling. Ventilate spill area. Contain and isolate spill. Keep non-essential personnel from entering spill area. Use mop and absorbent to collect material for proper disposal. Use non-metallic implements for cleaning and collection. Rinse area with water.

7. HANDLING AND STORAGE

HANDLING:
Follow label use directions. Do not mix with other chemicals unless instructed by label directions. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Immediately remove contaminated clothing. Wash clothing and equipment before reuse. Destroy contaminated shoes. Empty containers retain residue and may be hazardous (See Section 14, Transport Information.).

STORAGE:
Keep container closed when not in use. Store away from incompatible materials. (See Section 10, Stability and Reactivity).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT (PPE)

EYE:
Where eye contact is possible, wear chemical splash goggles (ANSI Z87.1-approved).

SKIN:
Where skin contact is possible, chemical-resistant gloves should be worn. When additional skin contact is possible, other protective equipment and clothing (e.g., footwear) may be needed. All contaminated clothing should be removed immediately and cleaned (or discarded) before reuse.

RESPIRATORY:
No respiratory protection is required if general room ventilation is adequate and airborne concentrations are kept below exposure limits. When exposure limits are exceeded, use appropriate respiratory protection (NIOSH/MSHA) to prevent overexposure.

ENGINEERING CONTROLS:

General room ventilation is expected to be adequate. If user operations generate vapor or mist, ventilation should be used to keep airborne concentrations below exposure limits.

EXPOSURE LIMITS:

INGREDIENT(S)	OSHA PEL/STEL	ACGIH TLV/STEL
2-Butoxyethanol	25 ppm (120 mg/m3)/ (Skin)	25 ppm (121 mg/m3)/ (Skin)
Ethanolamine	3 ppm (8 mg/m3)/ 6 ppm (15 mg/m3)	3 ppm (7.5 mg/m3)/ 6 ppm (15 mg/m3)
Potassium hydroxide	2 mg/m3 /(Ceiling)	2 mg/m3 /(Ceiling)
Sodium dodecylbenzene sulfonate	NE	NE

NE - Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
ODOR: Ammonia
APPEARANCE: Clear, Red
pH: 13.2 to 13.5
PERCENT VOLATILE BY WEIGHT: 94
VAPOR PRESSURE: Not Determined
VAPOR DENSITY: Not Determined
BOILING POINT: Not Determined
FREEZING/MELTING POINT: Not Determined
SOLUBILITY IN WATER: Complete
EVAPORATION RATE: Not Determined
SPECIFIC GRAVITY: 1.04
VISCOSITY: Water Thin
OCTANOL/WATER PARTITION COEFFICIENT: Not Determined
ODOR THRESHOLD: Not Determined

10. STABILITY AND REACTIVITY

STABILITY (CONDITIONS TO AVOID):
Stable.

POLYMERIZATION:
Will not occur.

HAZARDOUS DECOMPOSITION:
None.

INCOMPATIBLE MATERIALS:
Oxidizers (e.g., bleach), strong acids (e.g., hydrochloric acid), reactive metals (e.g., aluminum), and nitrosating agents (e.g., sodium nitrite).

11. TOXICOLOGICAL INFORMATION

ACUTE DATA:
This product causes eye and skin burns. Based on acute toxicity testing, this product is harmful if swallowed. It is not considered to be toxic by skin absorption. The following data are available for this product and its ingredients:

PRODUCT/INGREDIENT	ORAL LD_{50} (rat)	DERMAL LD_{50} (rabbit)	INHALATION LC_{50} (rat)
BARE KNUCKLES Ultra Stripper	<5000 mg/kg	>2000 mg/kg	Not Available
2-Butoxyethanol	470 mg/kg	220 mg/kg	450 ppm (4-hr)
Ethanolamine	1720 mg/kg	1000 mg/kg	Not Available
Sodium dodecylbenzene sulfonate	438 mg/kg	Not Available	Not Available

SENSITIZATION DATA:
No data available.

CHRONIC DATA:
Repeated inhalation of high concentrations of alkaline materials has been reported to cause impairment of lung function with shortness of breath, chemical pneumonia and pulmonary edema. Prolonged overexposure to high concentrations of 2-butoxyethanol by skin absorption, ingestion and inhalation has caused blood, liver and kidney effects in laboratory animals. Prolonged overexposure to high concentrations of ethanolamine by inhalation and ingestion has caused liver and kidney effects in laboratory animals.

REPRODUCTIVE/TERATOGENIC DATA:
No data available.

CARCINOGENIC/MUTAGENIC DATA:
Not listed as carcinogenic by NTP, IARC, or ACGIH or regulated as a carcinogen by OSHA.

SYNERGISTIC MATERIALS:
No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Disposal of this material should be in accordance with local, state or provincial and federal regulations. The unused product, as manufactured, is a RCRA hazardous waste (Corrosive-D002) in accordance with 40 CFR 261. The product has not been evaluated by the Toxicity Characteristic Leachate Procedure (TCLP). According to RCRA, it is the responsibility of the waste generator to ensure proper disposal.

14. TRANSPORT INFORMATION

DOT/TDG HAZARDOUS MATERIAL DESCRIPTION: Corrosive Liquid, N.O.S.
DOT/TDG TECHNICAL NAME: Ethanolamine, potassium hydroxide
DOT/TDG HAZARD CLASS: 8
UN ID No./P.I.N. No.: 1760
DOT/TDG PACKING GROUP: II
NAERG: 154

15. REGULATORY INFORMATION

Not meant to be all-inclusive—selected regulations represented.

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Under 40 CFR 370.2, this product meets the following hazard categories: Immediate, Delayed.

313 REPORTABLE INGREDIENTS: 2-Butoxyethanol is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 under the chemical category Glycol Ethers.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Not reportable under CERCLA.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: This product complies with all TSCA inventory requirements.

MASSACHUSETTS, NEW JERSEY, PENNSYLVANIA RIGHT-TO-KNOW:

INGREDIENT(S)	CAS NO.	STATE LISTING
Water	7732-18-5	Not Listed
2-Butoxyethanol	111-76-2	MA, NJ, PA
Ethanolamine	141-43-5	MA, NJ, PA
NJ Trade Secret Registry #11173400-5005P	NA	Not Listed
Potassium hydroxide	1310-58-3	MA, NJ, PA
Sodium dodecylbenzene sulfonate	25155-30-0	MA, NJ, PA

NA - Not Applicable

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):

Class E- Corrosive material; Class D- Division 2B, chronic toxic effects. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

HMIS RATING

HEALTH	*	3
FLAMMABILITY		0
REACTIVITY		0
PERSONAL PROTECTION		-

NFPA RATING

FIRE

0

HEALTH 3 0 REACTIVITY

SPECIAL

MSDS STATUS
New MSDS

APPROVED BY: EH&S/Regulatory Affairs
APPROVAL DATE: 11/25/1997

The information on this data sheet represents our current data and best opinion as to the proper use in handling of the product under normal foreseeable conditions. Any use of this product which is not in conformance with this data sheet or product label, or which involves using the product in combination with any other product or any other process is the responsibility of the user

Maintenance

1516 "Silv"

MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards. This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard (29 CFR 1910.1200). Other government regulations must be reviewed for applicability to these products.

WARNING: PRODUCT COMPONENTS PRESENT HEALTH AND SAFETY HAZARDS. READ AND UNDERSTAND THIS MATERIAL SAFETY DATA SHEET (M.S.DS.). ALSO, FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES. The information contained herein relates only to the specific product. If the product is combined with other materials, all component properties must be considered. BE SURE TO CONSULT THE LATEST VERSION OF THE MSDS. MATERIAL SAFETY DATA SHEETS ARE AVAILABLE FROM J.W. HARRIS CO., INC. & HARRIS WELCO DIVISION/ J.W. HARRIS CO.

STATEMENT OF LIABILITY-DISCLAIMER

To the best of the J.W. Harris Company, Inc.'s knowledge, the information and recommendations contained in this publication are reliable and accurate as of the date prepared. However, accuracy, suitability, or completeness are not guaranteed, and no warranty, guarantee, or representation, expressed or implied, is made by J.W. Harris Co., Inc. as to the absolute correctness or sufficiency of any representation contained in this and other publications; J.W. Harris Co., Inc. assumes no responsibility in connection therewith; nor can it be assumed that all acceptable safety measures are contained in this and other publications, or that other or additional measures may not be required under particular or exceptional conditions or circumstances. Data may be changed from time to time.

PART I *What is the material and what do I need to know in an emergency?*

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	STAY-SILV®WHITE BRAZING FLUX DYNAFLOW® FLUX; STAY-SILV® BLACK BRAZING FLUX; STAY-SILV®#99 POWDER BRAZING FLUX; STAY-SILV® WHITE POWDER BRAZING FLUX; DYNAFLOW HI-TEMP.
SYNONYMS:	STAY-SILV® BRAZING FLUXES
CHEMICAL NAME/CLASS:	Mixture of Potassium Borate and Fluoride Compounds
PRODUCT USE:	Metal Brazing Operations
DOCUMENT NUMBER:	0134
SUPPLIER/MANUFACTURER'S NAME:	J.W. HARRIS CO., INC.
ADDRESS:	4501 Quality Place Mason, Ohio 45040
EMERGENCY PHONE:	CHEMTREC: 1-800-424-9300
BUSINESS PHONE:	800-733-4533
DATE OF PREPARATION:	March 14, 2000

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	%w/w	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA		IDLH	OTHER
			TLV mg/m³	STEL mg/m³	PEL mg/m³	STEL mg/m³	mg/m³	mg/m³
STAY-SILV® WHITE BRAZING FLUX; DYNAFLOW FLUX								
Boric Acid (exposure limits are for Particulates Not Otherwise Classified)	10043-35-3	30-70%	10 (inhalable (Particulates) 3 (Respirable Particulates)	NE	15 (Total Dust) 5 (Respirable Fraction)	NE	NE	NE
Potassium Fluorides (exposure limits are for fluorides, as fluorine)	Proprietary	10-50%	2.5, A4 (Not Classifiable as a Human Carcinogen)	NE	2.5	NE	NE	NIOSH REL: 2.5 DFG MAK: 2.5
Water	7732-18-5	Balance	NE	NE	NE	NE	NE	NE

NE = Not Established C = Ceiling Limit See Section 16 for Definitions of Terms Used

NOTE: All WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-1993 format.

2. COMPOSITION and INFORMATION ON INGREDIENTS (Continued)

CHEMICAL NAME	CAS #	%w/w	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA		IDLH	OTHER
			TLV mg/m³	STEL mg/m³	PEL mg/m³	STEL mg/m³	mg/m³	mg/m³
STAY-SILV® BLACK BRAZING FLUX—DYNAFLOW HI-TEMP								
Potassium Borates (exposure limits are for Particulates Not Otherwise Classified)		50-75%	10 (Inhalable (Particulates) 3 (Respirable Particulates)	NE	15 (Total Dust) 5 (Respirable Fraction)	NE	NE	NE
Potassium Fluorides (exposure limits are for fluorides, as fluorine)		10-40%	2.5, A4 (Not Classifiable as a Human Carcinogen)	NE	2.5	NE	NE	NIOSH REL: 2.5 DFG MAK: 2.5
Boric Acid (exposure limits are for Particulates Not Otherwise Classified)	10043-35-3	1-40%	10 (Inhalable (Particulates) 3 (Respirable Particulates)	NE	15 (Total Dust) 5 (Respirable Fraction)	NE	NE	NE
Boron (exposure limits are for boron oxide)	7440-42-8	1-10%	10	NE	15 (Total dust) 10 (vacated 1989 PEL)	NE	2000	NIOSH REL: 10 DFG MAK: 15
Water	7732-18-5	Balance	NE	NE	NE	NE	NE	NE
STAY-SILV® #99 POWDER BRAZING FLUX								
Potassium Borates (exposure limits are for Particulates Not Otherwise Classified)		30-90%	10 (Inhalable (Particulates) 3 (Respirable Particulates)	NE	15 (Total Dust) 5 (Respirable Fraction)	NE	NE	NE
Boric Acid (exposure limits are for Particulates Not Otherwise Classified)	10043-35-3	Balance	10 (Inhalable (Particulates) 3 (Respirable Particulates)	NE	15 (Total Dust) 5 (Respirable Fraction)	NE	NE	NE
STAY-SILV® WHITE POWDER BRAZING FLUX								
Potassium Borates (exposure limits are for Particulates Not Otherwise Classified)		30-80%	10 (Inhalable (Particulates) 3 (Respirable Particulates)	NE	15 (Total Dust) 5 (Respirable Fraction)	NE	NE	NE
Boric Acid (exposure limits are for Particulates Not Otherwise Classified)	10043-35-3	1-3%	10 (Inhalable (Particulates) 3 (Respirable Particulates)	NE	15 (Total Dust) 5 (Respirable Fraction)	NE	NE	NE
Copper Wetting Agent		Balance	NE	NE	NE	NE	NE	NE

NE = Not Established C = Ceiling Limit See Section 16 for Definitions of Terms Used
NOTE: All WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-1993 format.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: These fluxes have the following characteristics: STAY-SILV® WHITE BRAZING FLUX/DYNAFLOW® FLUX - white, odorless paste; STAY-SILV® BLACK BRAZING FLUX - smooth, black, odorless paste; STAY-SILV® #99 POWDER BRAZING FLUX - fine, white powder with no odor; STAY-SILV® WHITE POWDER BRAZING FLUX - fine, white, odorless powder. These fluxes and their decomposition products can moderately to severely irritate the skin, eyes, and any other contaminated tissue. These fluxes are neither flammable nor reactive under normal circumstances. If involved in a fire, the components of these products can decompose to release toxic gases. Emergency responders must wear the proper personal protective equipment suitable for the situation to which they are responding.

3. HAZARD IDENTIFICATION (Continued)

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of over-exposure for these fluxes are by contact with skin, eye contact, or inhalation. The symptoms of overexposure to these fluxes , via route of entry, are as follows:

INHALATION: If particulates of these fluxes are inhaled, they can moderately to severely irritate the nose, throat, and respiratory system. Symptoms of inhalation over-exposure may include coughing, sneezing, and difficulty breathing.

CONTACT WITH SKIN or EYES: Depending on the duration and concentration of over-exposure, skin contact with these fluxes can moderately to severely irritate the skin. Repeated or prolonged skin over-exposure to these fluxes may result in dermatitis (red, dry, itchy skin). Depending on the duration and concentration of over-exposure, eye contact with these fluxes can irritate the eyes. Eye over-exposure can cause tearing, redness, and tissue damage.

SKIN ABSORPTION: Hydrogen fluoride, a possible decomposition product of Stay-Silv® White Brazing Flux/Dynaflow® Flux And Stay-Silv® Black Brazing Flux, is extremely corrosive and a poison by all routes of entry. Hydrogen fluoride can penetrate the skin and produce burns, which may not be immediately painful or visible; the burns impact the lower layers of skin and bone tissue. Hydrogen fluoride exposures involving 20 percent of the body or more can be fatal through systemic fluoride poisoning.

INGESTION: If swallowed call physician immediately! Do not induce vomiting unless directed by medical personnel. Rinse mouth with water if person is conscious. Never give fluids or induce vomiting if person is unconscious, having convulsions, or not breathing.

HAZARDOUS MATERIAL INFORMATION SYSTEM

HEALTH	(BLUE)	2
FLAMMABILITY	(RED)	0
REACTIVITY	(YELLOW)	0
PROTECTIVE EQUIPMENT		X

EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		

For routine applications.

See Section 16 for Definition of Ratings

INJECTION: Though not anticipated to be a likely route of occupational exposure for these fluxes, injection (via punctures or lacerations by a contaminated object) may cause local reddening, tissue swelling, and discomfort in addition to the wound.

HEALTH EFFECTS OR RISKS FROM OVER-EXPOSURE: An Explanation in Lay Terms. Symptoms associated with over-exposure to these fluxes are as follows:

ACUTE: Symptoms of inhalation over-exposure may include coughing, sneezing, and difficulty breathing. Depending on the duration and concentration of over-exposure, skin contact with these fluxes can severely irritate the skin. Depending on the duration and concentration of over-exposure, eye contact with these fluxes can irritate the eyes. Severe ingestion over-exposure may be fatal.

CHRONIC: Repeated or prolonged skin over-exposure to these fluxes may result in dermatitis (red, dry, itchy skin). Chronic over-exposure to hydrogen fluoride (a possible decomposition product of Stay-Silv® White Brazing Flux/Dynaflow ® Flux And Stay-Silv® Black Brazing Flux) can cause fluorosis (weakening and degeneration of bone structure and possible heart, nerve, and intestinal problems). Chronic ingestion over-exposure may to these fluoride-containing fluxes cause mottling of tooth enamel and hardening or abnormal density of the bones. Refer to Section 11 (Toxicological Information) for additional information regarding these fluxes and their components.

TARGET ORGANS: Skin, eyes, respiratory system.

PART II *What should I do if a hazardous situation occurs?*

4. FIRST-AID MEASURES

SKIN EXPOSURE: If these fluxes or their decomposition products irritate the skin, begin decontamination with running water. Minimum flushing is for 15 minutes. Do not interrupt flushing. For Stay-Silv® White Brazing Flux/Dynaflow® Flux and Stay-Silv® Black Brazing Flux: If necessary, apply calcium gluconate gel (2.5% concentration) after flushing is complete.

4. FIRST-AID MEASURES (Continued)

SKIN EXPOSURE (continued): See Section 11 (Toxicological Information, Recommendations to Physicians) for more information on the use of calcium gluconate gel. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek medical attention if any adverse reaction occurs.

EYE EXPOSURE: If these fluxes enter the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Do not interrupt flushing. Victim must seek immediate medical attention.

INHALATION: If particulates of these fluxes are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Victim must seek medical attention if any adverse reaction occurs.

INGESTION: If swallowed call physician immediately! Do not induce vomiting unless directed by medical personnel. Rinse mouth with water if person is conscious. Never give fluids or induce vomiting if person is unconscious, having convulsions, or not breathing.

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take copy of label and MSDS to health professional with victim. Medical professionals should refer to See Section 11 (Toxicological Information, Recommendations to Physicians) for more information.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not flammable.
AUTOIGNITION TEMPERATURE: Not applicable.
FLAMMABLE LIMITS (in air by volume, %): Lower (LEL): Not applicable.
Upper (UEL): Not applicable

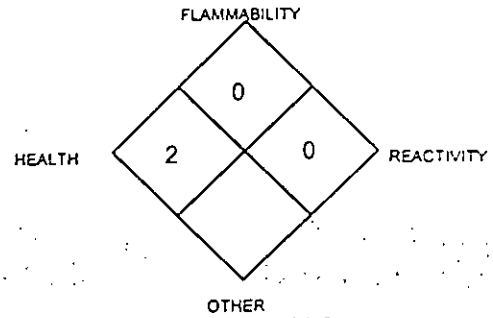
FIRE EXTINGUISHING MATERIALS: These fluxes are not flammable. Use extinguishing media appropriate for surrounding fire.

Water Spray: YES (for cooling)
Halon: YES
Dry Chemical: YES
Carbon Dioxide: YES
Foam: YES
Other: Any "ABC" Class.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product can moderately to severely irritate contaminated skin, and presents a potential contact hazard to firefighters. During a fire, irritating and toxic gases (e.g., hydrogen fluoride, potassium oxides, fluorine, and boron compounds) may be generated.

Explosion Sensitivity to Mechanical Impact: Not sensitive.
Explosion Sensitivity to Static Discharge: Not sensitive.

NFPA RATING



See Section 16 for Definition of Ratings

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

In the event of an incidental release of these fluxes, personnel should wear gloves, safety glasses (or goggles), and face shield during clean up. In the event of a non-incidental release, minimum Personal Protective Equipment should be **Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard-hat, and Self-Contained Breathing Apparatus.** Wipe-up or sweep-up spilled material carefully, avoiding the generation of airborne dust. Decontaminate the area thoroughly. Place all spilled residues in a suitable container and seal. Dispose of in accordance with applicable U.S. Federal, State, or local procedures and appropriate Canadian standards (see Section 13, Disposal Considerations).

For Stay-Silv® White Brazing Flux/Dynaflow® Flux and Stay-Silv® Black Brazing Flux: DUE TO THE PRESENCE OF FLUORIDE COMPONENTS, DO NOT STORE RESIDUE IN GLASS. ALSO, AVOID THE USE OF CLAY OR OTHER SILICATE-BASED ABSORBENTS.

PART III *How can I prevent hazardous situations from occurring*

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing particulates generated by this product. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: All employees who handle this material should be trained to handle it safely. Empty containers may contain residual material; therefore, empty containers should be handled with care.

Store these fluxes in a cool, dry location, away from direct sunlight, sources of intense heat. Store away from incompatible chemicals (see Section 10, Stability and Reactivity). Material should be stored in secondary containers or in a diked area, as appropriate. Storage and use areas should be covered with impervious materials. Keep container tightly closed when not in use. Inspect all incoming containers before storage to ensure they are properly labeled and not damaged. For Stay-Silv® White Brazing Flux/Dynaflow® Flux And Stay-Silv® Black Brazing Flux: Do not store in glass, or permit material to be stored in silicate-based material.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely. Collect all rinsates and dispose of according to applicable U.S. Federal, State, or local procedures, and appropriate Canadian standards.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided in Section 2 (Composition and Information on Ingredients). Exhaust directly to the outside, taking necessary precautions for environmental protection. Prudent practice is to ensure eyewash/safety shower stations are available near areas where these fluxes are used.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed in Section 2 (Composition and Information on Ingredients) if applicable. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134 or applicable State regulations. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown. The following respiratory protection guidelines are provided for Fluorides (e.g., Potassium Fluorides, components of these fluxes):

CONCENTRATION	RESPIRATORY PROTECTION
UP TO 12.5 mg/m^3:	Dust and mist respirator.
UP TO 25 mg/m^3:	Dust and mist respirator except single-use and quarter-mask respirator* or Supplied Air Respirator (SAR)*.
UP TO 62.5 mg/m^3:	SAR operated in a continuous-flow mode* or powered air-purifying respirator with dust and mist filter(s)*++.
UP TO 125 mg/m^3:	Full-facepiece respirator with high-efficiency particulate filter(s)++, full-facepiece Self-Contained Breathing Apparatus, or full-facepiece SAR.
UP TO 250 mg/m^3:	Positive pressure, full-facepiece SAR.
EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS:	Positive pressure, full-facepiece SCBA or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.
ESCAPE:	Full-facepiece respirator with high-efficiency particulate filter(s)++ or escape-type SCBA.
*NOTE:	Substance reported to cause eye irritation or damage; may require eye protection.
++NOTE:	May need acid gas sorbent.

EYE PROTECTION: Safety glasses or goggles.

HAND PROTECTION: Wear natural rubber, neoprene, or nitrile rubber gloves for routine industrial use.

BODY PROTECTION: None needed for normal circumstances of use. Use body protection appropriate for task (i.e., apron, coveralls, and chemical resistant boots).

9. PHYSICAL and CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): Not applicable.
SPECIFIC GRAVITY (water = 1) : 1.5-1.7.
SOLUBILITY IN WATER: Moderately soluble.
EVAPORATION RATE (nBuAc = 1): Not applicable.
FREEZING/MELTING POINT: Not applicable.
BOILING POINT: Not applicable.

9. PHYSICAL and CHEMICAL PROPERTIES (Continued)

VAPOR PRESSURE, mm Hg @ 24°C: Not established. pH: Not applicable.
ODOR THRESHOLD: Not applicable.
COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not established.

APPEARANCE AND COLOR: STAY-SILV® WHITE BRAZING FLUX/DYNAFLOW® FLUX - white, odorless paste; STAY-SILV® BLACK BRAZING FLUX - smooth, black, odorless paste; STAY-SILV® #99 POWDER BRAZING FLUX - fine, white powder with no odor; STAY-SILV® WHITE POWDER BRAZING FLUX - fine, white, odorless powder.
HOW TO DETECT THESE SUBSTANCES (warning properties): The appearance may act as a distinguishing characteristic of these fluxes.

10. STABILITY and REACTIVITY

STABILITY: Stable.

DECOMPOSITION PRODUCTS: Hydrogen fluoride, fluorine, and boron and potassium compounds.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizers, strong acids, and reactive interhalogens. For Stay-Silv® White Brazing Flux/Dynaflow® Flux And Stay-Silv® Black Brazing Flux: Due to the presence of fluoride components, avoid contact with silicate-based materials.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Extreme temperatures, moisture, and incompatible materials.

PART IV *Is there any other useful information about this material?*

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: Presented below are human toxicological data available for the components of these fluxes present in concentration greater than 1%. Other data for animals are available for the components of these products, but are not presented in this Material Safety Data Sheet.

BORIC ACID:
Skin Irritancy (human) = 15 mg/ 3 days/ intermittent; mild
LD (oral, human) = 37 mg/kg/ boron as boric acid
LD (skin, infant) = 210 mg/kg/ boron as boric acid
TDLo (oral, child) = 500 mg/kg; gastrointestinal effects
LDLo (oral, man) = 429 mg/kg; cardiovascular, systemic effects
LDLo (oral, woman) = 200 mg/kg
TDLo (oral, infant) = 800 mg/kg/ 4 weeks/ intermittent
LDLo (oral, infant) = 934 mg/kg

BORIC ACID (continued):
LDLo (skin, infant) = 1200 mg/kg
LDLo (skin, child) = 4000 mg/kg/ 4 days
LDLo (skin, man) = 2430 mg/kg
LDLo (skin, child) = 1500 mg/kg
LDLo (subcutaneous, infant) = 1100 mg/kg
TDLo (unreported, man) = 170 mg/kg; gastrointestinal effects
LDLo (unreported, man) = 147 mg/kg

SUSPECTED CANCER AGENT: The components of these fluxes are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, and CAL/OSHA, and therefore are not considered to be, nor suspected to be, cancer-causing agents by these agencies.

IRRITANCY OF PRODUCT: These fluxes can moderately to severely irritate contaminated tissue.

SENSITIZATION TO THE PRODUCT: No component of these fluxes is known to be a sensitizer with prolonged or repeated use.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of these fluxes on the human reproductive system.

Mutagenicity: These fluxes are not reported to produce mutagenic effects in humans. Animal mutation data are available for Boric Acid (a component of these fluxes); these data were obtained during clinical studies on specific animal tissues exposed to high doses of this compound.
Embryotoxicity These fluxes are not reported to produce embryotoxic effects in humans.
Teratogenicity: These fluxes are not reported to cause teratogenic effects in humans
Reproductive Toxicity: These fluxes are not reported to cause reproductive effects in humans. Clinical studies on test animals exposed to relatively high doses of Boric Acid (a component of these fluxes) indicate adverse reproductive effects.

A mutagen is a chemical, which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical, which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical, which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance, which interferes in any way with the reproductive process.

11. TOXICOLOGICAL INFORMATION (Continued)

BIOLOGICAL EXPOSURE INDICES: Currently, there are Biological Exposure Indices (BEIs) associated with Potassium Fluorides (a component of these fluxes), as a fluoride.

CHEMICAL DETERMINANT	SAMPLING TIME	BEI
FLUORIDES Fluorides in urine	Prior to shift End of shift	3 mg/g creatinine 10 mg/g creatinine

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Dermatitis, other skin disorders, and respiratory conditions may be aggravated by over-exposure to these fluxes.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate over-exposure. For Stay-Silv® White Brazing Flux/Dynaflow® Flux And Stay-Silv® Black Brazing Flux: In the event of over-exposure to these fluxes, all personnel providing treatment must be gloved. If there are indications that a victim is suffering from the effects of fluoride over-exposure, the treatment recommendations for contamination are as follows:

SKIN CONTACT: After 15 minute water flush (if flush has not yet been done), apply calcium gluconate gel (2.5% concentration) until pain has subsided, but not longer than 30 minutes. If pain lasts longer than 15 minutes, proceed with calcium gluconate injections.

EYE CONTACT: After 15 minutes water flush (if flush has not been done), flush eyes with 1% calcium gluconate gel in normal, sterile saline.

INHALATION: Provide 100% oxygen, followed by inhalation of a mist containing 2.5% calcium gluconate in saline solution. Watch for pulmonary edema.

INGESTION: Gastric lavage with lime water or milk.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: The components of these fluxes will slowly decompose under normal environmental conditions into a variety of inorganic compounds.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: These fluxes can be harmful to plant and animal life. Specific data on test animals are available, but are not presented in this Material Safety Data Sheet.

EFFECT OF CHEMICAL ON AQUATIC LIFE: Large releases of these fluxes may be harmful or fatal to exposed aquatic life. The following aquatic toxicity data are available.

BORIC ACID:
LC_{50} (trout eggs) = 100 ppm/ soft
LC_{50} (trout eggs) = 79 ppm/ hard
LC_{50} (catfish eggs) = 155 ppm/ soft
LC_{50} (catfish eggs) = 22 ppm/ hard

BORIC ACID (continued):
LC_{50} (goldfish eggs) = 46 ppm/ soft
LC_{50} (goldfish eggs) = 75 ppm/ hard
LC_{50} (*Daphnia magna*) = 133 mg/L/ 48 hours

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada and its Provinces. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

U.S. EPA WASTE NUMBER: Not applicable.

14. TRANSPORTATION INFORMATION

THIS MATERIAL IS NOT HAZARDOUS (Per 49 CFR 172.101) BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME:	Not applicable.
HAZARD CLASS NUMBER and DESCRIPTION:	Not applicable.
UN IDENTIFICATION NUMBER:	Not applicable.
PACKING GROUP:	Not applicable.
DOT LABEL(S) REQUIRED:	Not applicable.

14. TRANSPORTATION INFORMATION (Continued)

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (1996): Not applicable.
MARINE POLLUTANT: The components of these fluxes are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: THIS MATERIAL IS CONSIDERED AS DANGEROUS GOODS. Refer to above information for Canadian shipments.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of these fluxes are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: Not applicable.

U.S. CERCLA REPORTABLE QUANTITY (RQ) : Not applicable.

U.S. TSCA INVENTORY STATUS: The components of these fluxes are listed on the TSCA Inventory.

U.S. STATE REGULATORY INFORMATION: Components of these fluxes are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: No.
California - Permissible Exposure Limits for Chemical Contaminants: No.
Florida - Substance List: No.
Illinois - Toxic Substance List: No.
Kansas - Section 302/313 List: No.
Massachusetts - Substance List: No.
Michigan - Critical Materials Register: No.
Minnesota - List of Hazardous Substances: No.
Missouri - Employer Information/Toxic Substance List: Potassium Fluorides.
New Jersey - Right to Know Hazardous Substance List: Potassium Fluorides.
North Dakota - List of Hazardous Chemicals, Reportable Quantities: No.
Pennsylvania - Hazardous Substance List: No.
Rhode Island - Hazardous Substance List: No.
Texas - Hazardous Substance List: No.
West Virginia - Hazardous Substance List: No.
Wisconsin - Toxic and Hazardous Substances: No.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): No component of these fluxes is on the California Proposition 65 lists.

ANSI LABELING (Z129.1): WARNING! MAY BE HARMFUL OR FATAL IF SWALLOWED. IRRITATING IF INHALED. CAUSES SKIN AND EYE IRRITATION. MAY CONTAIN FLUORIDES. PROTECT YOURSELF AND OTHERS. KEEP AWAY FROM GLASS AND SILICATES. FUMES AND GASES CAN BE HAZARDOUS TO HEALTH AND CAN BURN EYES AND SKIN ON CONTACT. Keep out of reach of children. Do not taste or swallow. Do not get on skin or in eyes. Avoid breathing fumes or particulates. Keep head away from fumes. Use enough ventilation, exhaust or arc, or both, to keep fumes and gases from breathing zone and general area. Keep container closed when not in use. Avoid contact with glass and silicate compounds. Wash thoroughly after handling. Wear gloves, goggles, face-shields, suitable body protection, and NIOSH/MSHA-approved respiratory protection, as appropriate. For maximum safety, be certified for and wear a respirator at all times when brazing. See American National Standard Z49.1, Safety in Welding, Cutting, and Allied Processes, published by the American Welding Society, 550 NW LeJeune Rd., Miami, FL 33126. Also see OSHA Safety and Health Standards, 29 CFR 1910, available from the US Government Printing Office, Washington DC, 20402. FIRST-AID: In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If inhaled, remove to fresh air. If ingested, do not induce vomiting. Get medical attention. IN CASE OF FIRE: Use water fog, dry chemical, CO_2, or "alcohol" foam. IN CASE OF SPILL: Wipe-up or sweep-up spilled powder carefully. Place residue in suitable container and seal. Avoid contact with silicate-based material. Consult Material Safety Data Sheet for additional information.

ADDITIONAL CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of these fluxes are listed on the NDSL/DSL Inventory.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: The components of these fluxes are not on the CEPA Priorities Substances Lists, as follows: Potassium Fluoride (as Inorganic Fluoride) Priority List 1, Toxic Material.

CANADIAN WHMIS SYMBOLS: D2B Materials Causing Other Toxic Effects.

16. OTHER INFORMATION

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc.
9163 Chesapeake Drive, San Diego, CA 92123-1002
619/565-0302

DATE OF PRINTING: March 15, 2000

This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard (29 CFR 1910.1200). Other government regulations must be reviewed for applicability to these fluxes. The information contained herein relates only to the specific product. If the product is combined with other materials, all component properties must be considered. To the best of the J.W. Harris Company, Inc.'s knowledge, the information and recommendations contained in this publication are reliable and accurate as the date of issue. However, accuracy, suitability, or completeness are not guaranteed, and no warranty, guarantee, or representation, expressed or implied, is made by J.W. Harris Co., Inc. as to the absolute correctness or sufficiency of any representation contained in this and other publications; J.W. Harris Co., Inc. assumes no responsibility in connection therewith; nor can it be assumed that all acceptable safety measures may not be required under particular or exceptional conditions or circumstances. Data may be changed from time to time. Be sure to consult the latest edition.

DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these, which are commonly used, include the following:

CAS #: This is the Chemical Abstract Service Number, which uniquely identifies each constituent. It is used as a unique identifier for the chemical.

EXPOSURE LIMITS IN AIR:
ACGIH - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. TLV - Threshold Limit Value - an airborne concentration of a substance, which represents conditions under which it is generally believed that nearly all workers, may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (TWA), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level (C). Skin absorption effects must also be considered. OSHA - U.S. Occupational Safety and Health Administration. PEL - Permissible Exposure Limit - This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL, which was vacated by Court Order. IDLH - Immediately Dangerous to Life and Health - This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury. The DFG - MAK is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. NIOSH is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (OSHA). NIOSH issues exposure guidelines called Recommended Exposure Levels (RELs). When no exposure guidelines are established, NE is made for reference.

HAZARD RATINGS:
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: This rating system was developed by the National Paint and Coating Association and has been adopted by industry to identify the degree of chemical hazards. Health Hazard: 0 (minimal acute or chronic exposure hazard); 1 (slight acute or chronic exposure hazard); 2 (moderate acute or significant chronic exposure hazard); 3 (severe acute exposure hazard; onetime overexposure can result in permanent injury and may be fatal); 4 (extreme acute exposure hazard; onetime overexposure can be fatal). Flammability Hazard: 0 (minimal hazard); 1 (materials that require substantial pre-heating before burning); 2 (combustible liquid or solids; liquids with a flash point of 38-93°C [100-200°F]); 3 (Class IB and IC flammable liquids with flash points below 38°C [100°F]); 4 (Class IA flammable liquids with flash points below 23°C [73°F] and boiling points below 38°C [100°F]. Reactivity Hazard: 0 (normally stable); 1 (material that can become unstable at elevated temperatures or which can react slightly with water); 2 (materials that are unstable but do not detonate or which can react violently with water); 3 (materials that can detonate when initiated or which can react explosively with water); 4 (materials that can detonate at normal temperatures or pressures). PPE Rating X: Special attention should be given to PPE selection.

NATIONAL FIRE PROTECTION ASSOCIATION: Health Hazard: 0 (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); 1 (materials that on exposure under fire conditions could cause irritation or minor residual injury); 2 (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); 3 (materials that can on short exposure could cause serious temporary or residual injury); 4 (materials that under very short exposure causes death or major residual injury). Flammability Hazard and Reactivity Hazard: Refer to definitions for "Hazardous Materials Identification System".

FLAMMABILITY LIMITS IN AIR:
Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). Flash Point - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

TOXICOLOGICAL INFORMATION:
Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: LD_{50} - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; LC_{50} - Lethal Concentration (gases) which kills 50% of the exposed animals; ppm concentration expressed in parts of material per million parts of air or water; mg/m^3 concentration expressed in weight of substance per volume of air; mg/kg quantity of material, by weight, administered to a test subject, based on their body weight in kg. Other measures of toxicity include TDLo, the lowest dose to cause a symptom and TCLo the lowest concentration to cause a symptom; TDo, LDLo, and LDo, or TC, TCo, LCLo, and LCo, the lowest dose (or concentration) to cause lethal or toxic effects. Cancer Information: The sources are: IARC - the International Agency for Research on Cancer; NTP - the National Toxicology Program, RTECS - the Registry of Toxic Effects of Chemical Substances, OSHA and CAL/OSHA. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. Other Information: BEI - ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. Ecological Information: EC is the effect concentration in water. BCF = Bioconcentration Factor, which is used to determine if a substance will concentrate in lifeforms which consume contaminated plant or animal matter. TL_m = median threshold limit; Coefficient of Oil/Water Distribution is represented by log K_{ow} or log K_{oc} and is used to assess a substance's behavior in the environment.

REGULATORY INFORMATION:
This section explains the impact of various laws and regulations on the material. U.S.: EPA is the U.S. Environmental Protection Agency. DOT is the U.S. Department of Transportation. SARA is the Superfund Amendments and Reauthorization Act. TSCA is the U.S. Toxic Substance Control Act. CERCLA (or Superfund) refers to the Comprehensive Environmental Response, Compensation, and Liability Act. Labeling is per the American National Standards Institute (ANSI Z129.1). CANADA: CEPA is the Canadian Environmental Protection Act. WHMIS is the Canadian Workplace Hazardous Materials Information System. TC is Transport Canada. DSL/NDSL are the Canadian Domestic/Non-Domestic Substances Lists.

Maintenance

1517 Copper

MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards .This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard (29 CFR 1910.1200). Other government regulations must be reviewed for applicability to these products.

WARNING: PRODUCT COMPONENTS PRESENT HEALTH AND SAFETY HAZARDS. READ AND UNDERSTAND THIS MATERIAL SAFETY DATA SHEET (M.S.DS.). ALSO, FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES. The information contained herein relates only to the specific product. If the product is combined with other materials, all component properties must be considered. BE SURE TO CONSULT THE LATEST VERSION OF THE MSDS. MATERIAL SAFETY DATA SHEETS ARE AVAILABLE FROM J.W. HARRIS CO., INC. & HARRIS WELCO DIVISION/ J.W. HARRIS CO.

STATEMENT OF LIABILITY-DISCLAIMER

To the best of the J.W. Harris Company, Inc.'s knowledge, the information and recommendations contained in this publication are reliable and accurate as of the date prepared. However, accuracy, suitability, or completeness are not guaranteed, and no warranty, guarantee, or representation, expressed or implied, is made by J.W. Harris Co., Inc. as to the absolute correctness or sufficiency of any representation contained in this and other publications; J.W. Harris Co., Inc. assumes no responsibility in connection therewith; nor can it be assumed that all acceptable safety measures are contained in this and other publications, or that other or additional measures may not be required under particular or exceptional conditions or circumstances . Data may be changed from time to time.

PART I *What is the material and what do I need to know in an emergency?*

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED): PHOS/COPPER BRAZING ALLOYS:

DYNAFLOW®
SUPER DYNAFLOW®
HARRIS 0
HARRIS 0AM
HARRIS 0LP
HARRIS 0HP (LCuP 7)
HARRIS 0HHP
HARRIS 0XHP
LAg2PA
LAg5PA
LCuP 6
LCuP 8
LCuPSn-7
PHOSON +®
PSN 4
QUICKSILVER®
STAY-SILV® 2
STAY-SILV® 2.5
STAY-SILV® 2HP
STAY-SILV® 2LP (LAg2PB)
STAY-SILV® 5
MERCURY
STAY-SILV® 5HP (LAg5PB)
STAY-SILV® 5LP
STAY-SILV® 6
STAY-SILV® 6.5
STAY-SILV® 6HP
STAY-SILV® 6LP
STAY-SILV® 15
STAY-SILV® 15HP
STAY-SILV® 15LP
STAY-SILV® 18LP (18M)

CHEMICAL NAME/CLASS:	Metal Brazing Alloy
SYNONYMS:	Not Applicable
PRODUCT USE:	Metal Brazing
DOCUMENT NUMBER:	0082
SUPPLIER/MANUFACTURER'S NAME:	J.W. HARRIS CO., INC.
ADDRESS:	4501 Quality Place Mason, Ohio 45040
EMERGENCY PHONE:	CHEMTREC: 1-800-424-9300
BUSINESS PHONE:	800-733-4533
DATE OF PREPARATION:	February 28, 2000

2. NOMINAL COMPOSITION and INFORMATION ON INGREDIENTS

PRODUCT NAME	Ag	Cu	Sn	P
DYNAFLOW®	6.0	Balance		6.1
SUPER DYNAFLOW®	18.0	Balance		7.3
HARRIS 0		Balance		7.1
HARRIS 0AM		Balance		6.95
HARRIS 0LP		Balance		6.8
HARRIS OHP (LCuP 7)		Balance		7.4
HARRIS OHHP		Balance		7.6
HARRIS OXHP		Balance		7.8
LAg2PA	1.7	Balance		6.4

2. NOMINAL COMPOSITION and INFORMATION ON INGREDIENTS (Continued)

PRODUCT NAME	Ag	Cu	Sn	P
LAg5PA	4.6	Balance		6.3
LCuP 6		Balance		6.5
LCuP 8		Balance		8.1
LCuPSn-7		Balance	7.0	6.8
PHOSON +®	15.0	Balance		7.3
PSN 4		Balance	4.0	6.0
QUICKSILVER®		Balance		7.2
STAY-SILV® 2	2.0	Balance		7.0
STAY-SILV® 2.5	2.4	Balance		6.4
STAY-SILV® 2HP	2.0	Balance		7.4
STAY-SILV® 2LP (LAg2PB)	2.0	Balance		6.5
STAY-SILV® 5	5.0	Balance		6.0
STAY-SILV® 5HP (LAg5PB)	5.0	Balance		6.5
STAY-SILV® 5LP	5.0	Balance		5.7
STAY-SILV® 6	6.0	Balance		6.5
STAY-SILV® 6.5	6.4	Balance		6.1
STAY-SILV® 6HP	6.0	Balance		7.2
STAY-SILV® 6LP	6.0	Balance		6.2
STAY-SILV® 15	15.0	Balance		5.0
STAY-SILV® 15HP	15.0	Balance		5.4
STAY-SILV® 15LP	15.0	Balance		4.7
STAY-SILV® 18LP (18M)	18.0	Balance		5.8
MERCURY		Balance		8.2

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR					
		ACGIH		OSHA			OTHER mg/m³
		TLV mg/m³	STEL mg/m³	PEL mg/m³	STEL mg/m³	IDLH mg/m³	
Phosphorous (yellow)	7723-14-0	0.1	NE	0.1	NE	5	NIOSH REL: 0.1 DFG MAKs: 0.1 Carcinogen: EPA-D
Tin The following exposure limits are for "Tin, Metal".	7440-31-5	2	NE	2	NE	100	NIOSH REL: TWA = 2
Silver	7440-22-4	0.1	NE	0.01	NE	10	NIOSH REL: 0.01 DFG MAK: 0.01 Carcinogen: EPA-D
Copper (exposure limits are for "Copper fume, as Cu")	7440-50-8	0.2(fume) 1 (dusts & mists)	NE	0.1 (fume) 1 (dusts & mists)	NE	100	NIOSH RELs: TWA = (fume): 0.1 TWA = (dust): 1 DFG MAKs: TWA = (fume): 0.1 (Respirable fraction) TWA = (dusts & mists): 1 (Total respirable dust fraction) PEAK = 2 MAK, 30 min., average value Carcinogen (dusts & mists): EPA-D

NE = Not Established. C = Ceiling Limit. See Section 16 for Definitions of Terms Used.
NOTE (1): The ACGIH has an established exposure limit for Welding Fumes, Not Otherwise Classified. The Threshold Limit value is 5 mg/m³.
NOTE(2): All WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-1993 format.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: These products consist of odorless, metallic, copper-colored wires and rods in a variety of diameters. There is no immediate health hazard associated with the wire products. These products are not reactive under normal circumstances of use. Though the products are not flammable, when heated they will produce fumes containing a variety of copper and silver compounds. Emergency responders must wear personal protective equipment suitable for the situation to which they are responding.

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: During brazing operations, the most significant route of overexposure is via inhalation of fumes.

INHALATION Exposure to fumes of these products will irritate the nose, throat and other tissues of the respiratory system. Overexposure to Copper fumes may produce metal fume fever. Symptoms of metal fume fever resemble the flu and include sweating, fever, headache, chills, muscle aches, nausea, vomiting, weakness, and tiredness.

CONTACT WITH SKIN or EYES: Contact with the wire or rod forms of these products is not anticipated to be irritating. Contact with the wire form can be physically damaging to the eye. Fumes generated during brazing or welding operations can irritate the skin and eyes. Symptoms of skin overexposure may include irritation and redness; prolonged or repeated skin overexposures may lead to dermatitis. Contact with the molten material will burn contaminated skin or eyes.

SKIN ABSORPTION: Skin absorption is not a significant route of overexposure for any component of these products.

INGESTION: If swallowed call physician immediately! Do not induce vomiting unless directed by medical personnel. Rinse mouth with water if person is conscious. Never give fluids or induce vomiting if person is unconscious, having convulsions, or not breathing.

INJECTION: Though not a likely route of occupational exposure for these products, injection (via punctures or lacerations in the skin) may cause local reddening, tissue swelling, and discomfort.

HAZARDOUS MATERIAL INFORMATION SYSTEM

HEALTH	(BLUE)	1
FLAMMABILITY	(RED)	0
REACTIVITY	(YELLOW)	0
PROTECTIVE EQUIPMENT		X

EYES	RESPIRATORY	HANDS	BODY
	See Section 8		See Section 8

For routine industrial applications

See Section 16 for Definition of Ratings

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms. Symptoms associated with overexposure to these products and the fumes generated during brazing operations are as follows:

ACUTE: The chief health hazard associated with these products would be the potential for irritation of contaminated skin and eyes when exposed to fumes during brazing operations. Overexposure to Copper fumes may produce metal fume fever. Contact with the molten material will burn contaminated skin or eyes.

CHRONIC: Chronic skin overexposure to the fumes of these products during brazing operations may produce dermatitis (red, inflamed skin). Chronic skin contact or ingestion of dusts, salts, or fumes of Silver, (a component of these products) can result in a condition known as Argyria. This condition is marked by a bluish appearance of the skin and eyes. Refer to Section 11 (Toxicological Information) for further information.

TARGET ORGANS: Skin, eyes, and respiratory system.

PART II *What should I do if a hazardous situation occurs?*

4. FIRST-AID MEASURES

SKIN EXPOSURE: If fumes of these products contaminate the skin, begin decontamination with running water. If molten material contaminates the skin, immediately begin decontamination with cold, running water. Minimum flushing is for 15 minutes. Victim must seek medical attention if any adverse reaction occurs.

EYE EXPOSURE: If fumes of these products enter the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Victim must seek immediate medical attention.

4. FIRST-AID MEASURES (Continued)

INHALATION: If fumes of these products are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions.

INGESTION: If swallowed call physician immediately! Do not induce vomiting unless directed by medical personnel. Rinse mouth with water if person is conscious. Never give fluids or induce vomiting if person is unconscious, having convulsions, or not breathing.

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take copy of label and MSDS to health professional with victim.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not flammable.

AUTOIGNITION TEMPERATURE: Not flammable.

FLAMMABLE LIMITS (in air by volume, %):

Lower (LEL): Not applicable.
Upper (UEL): Not applicable.

FIRE EXTINGUISHING MATERIALS:

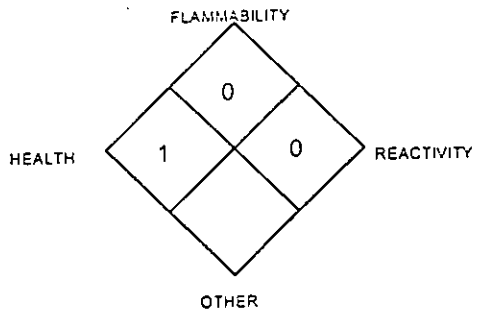
Water Spray: YES
Halon: YES
Dry Chemical: YES
Carbon Dioxide: YES
Foam: YES
Other: Any "ABC" Class

UNUSUAL FIRE AND EXPLOSION HAZARDS In the heat of a fire, the product may produce fumes containing copper, silver, and phosphorous compounds and a variety of metal oxides.

Explosion Sensitivity to Mechanical Impact: Not sensitive.
Explosion Sensitivity to Static Discharge: Not sensitive.

SPECIAL FIRE-FIGHTING PROCEDURES: Not applicable.

NFPA RATING



See Section 16 for Definition of Ratings

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Pick up or sweep-up solid material carefully. If the material is molten, allow it to cool and solidify and then scrape up the product carefully. Decontaminate the area thoroughly. Place all spilled residues in a suitable container and seal. Dispose of in accordance with Federal, State, and local hazardous waste disposal regulations (see Section 13, Disposal Considerations).

PART III *How can I prevent hazardous situations from occurring*

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting these products ON YOU or IN YOU. Wash thoroughly after handling these products. Do not eat or drink while handling these products. Use ventilation and other engineering controls to minimize potential exposure these products.

STORAGE AND HANDLING PRACTICES: All employees who handle these products should be trained to handle them safely. Use in a well-ventilated location. Avoid breathing fumes generated by these products during brazing operations. Packages of these products must be properly labeled. Store containers in a cool, dry location. Store away from incompatible materials (see Section 10, Stability and Reactivity).

When these products are used during brazing operations, it is recommended that the requirements of the Federal Occupational Safety and Health Welding and Cutting Standard (29 CFR 1910 Subpart Q) and the safety standards of the American National Standards Institute for welding and cutting (ANSI Z49.1) be followed.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided in Section 2 (Composition and Information on Ingredients). Prudent practice is to ensure eyewash/safety shower stations are available near areas where these products are used.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed in Section 2 (Composition and Information on Ingredients). If respiratory protection is needed (i.e., a Weld Fume Respirator or Air-Line Respirator for brazing in confined spaces), use only protection authorized in 29 CFR 1910.134 or applicable State regulations. Respiratory Protection is recommended to be worn during brazing operations. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown. Respiratory protection guidelines for Copper and Silver dusts (as may be generated during metal processing or during brazing) are provided as follows:

NIOSH RECOMMENDATIONS FOR COPPER DUSTS AND MISTS (as Cu) CONCENTRATIONS IN AIR:

Up to 5 mg/m^3:	Dust and mist respirator.
Up to 10 mg/m^3:	Dust and mist respirator except single-use and quarter-mask respirator (if not present as a fume); or Supplied Air Respirator (SAR).
Up to 25 mg/m^3:	Powered air-purifying respirator with dust and mist filter(s); or SAR operated in a continuous-flow mode.
Up to 50 mg/m^3:	Full-facepiece respirator with high-efficiency particulate filter(s); or full-facepiece Self-Contained Breathing Apparatus (SCBA); or full-facepiece SAR; or powered air-purifying respirator with tight-fitting facepiece and high-efficiency particulate filter.
Up to 100 mg/m^3:	Positive pressure, full-facepiece SAR. (continued on next page)
Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions:	Positive pressure, full-facepiece SCBA; or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.
Escape:	Full-facepiece respirator with high-efficiency particulate filter(s); or escape-type SCBA.

NIOSH/OSHA RECOMMENDATIONS FOR SILVER (METAL DUST AND SOLUBLE COMPOUNDS, AS SILVER) CONCENTRATIONS IN AIR:

Up to 0.25 mg/m^3:	Supplied Air Respirator (SAR) operated in a continuous-flow mode or powered air-purifying respirator with high-efficiency particulate filter.
Up to 0.5 mg/m^3:	Full-facepiece respirator with high-efficiency particulate filter(s), full-facepiece Self-Contained Breathing Apparatus (SCBA), or full-facepiece SAR.
Up to 10 mg/m^3:	Positive pressure, full-facepiece SAR.
Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions:	Positive pressure, full-facepiece SCBA or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.
Escape:	Full-facepiece respirator with high-efficiency particulate filter(s) or escape-type SCBA.

EYE PROTECTION: Safety glasses. When these products are used in conjunction with brazing, it is recommended that safety glasses, goggles, or face-shield with filter lens of appropriate shade number (per ANSI Z49.1-1988, "Safety in Welding and Cutting") be worn.

HAND PROTECTION: Wear gloves for routine industrial use. When these products are used in conjunction with brazing, it is recommended that gloves that protect from sparks and flame (per ANSI Z49.1-1988, "Safety in Welding and Cutting") be worn.

BODY PROTECTION: Use body protection appropriate for task.

9. PHYSICAL and CHEMICAL PROPERTIES

The following information is for Copper, the main component of this product:

RELATIVE VAPOR DENSITY (air = 1): Not applicable.
SPECIFIC GRAVITY (water = 1): 8.94
SOLUBILITY IN WATER: Insoluble.
VAPOR PRESSURE, mm Hg @ 20°C: Not applicable.
ODOR THRESHOLD: Not applicable.
EVAPORATION RATE (nBuAc = 1): Not applicable.
FREEZING/MELTING POINT: 1083°C (1981°F)
pH: Not applicable.
BOILING POINT: 2595°C (4703°F)
COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not applicable.

The following information is for the product:

APPEARANCE AND COLOR: These products consist of metallic-copper wire and rods with no odor.
HOW TO DETECT THIS SUBSTANCE (warning properties): The appearance is a distinctive characteristic of these products.

10. STABILITY and REACTIVITY

STABILITY: Stable.

DECOMPOSITION PRODUCTS: Thermal decomposition may produce copper, phosphorous, and silver compounds and a variety of metal oxides.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong acids, oxidizers, halogens, and acid chlorides.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Uncontrolled exposure to extreme temperatures, incompatible materials.

PART IV *Is there any other useful information about this material?*

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: Presented below are human toxicological data available for the components of these products. Other data for animals are available for the components of these products, but are not presented in this Material Safety Data Sheet.

COPPER:
TDLo (oral, human) = 120 µg/kg; gastrointestinal tract effects

PHOSPHOROUS:
LDLo (unreported, man) = 4412 µg/kg

SILVER:
TCLo (inhalation, human) = 1 mg/m^3; skin effects

SUSPECTED CANCER AGENT: Silver and Phosphorus (components of these products) are listed as follows:

EPA-D, Not Classifiable as to Human Carcinogenicity.

The other components of these products are not found on the following lists: FEDERAL, OSHA Z LIST, NTP, IARC and CAL/OSHA and therefore are neither considered to be nor suspected to be cancer-causing agents by these agencies.

IRRITANCY OF PRODUCT: These products' fumes may be irritating to contaminated skin, eyes and respiratory system.

SENSITIZATION TO THE PRODUCT: Rare cases of allergic contact dermatitis have been reported in people working with copper dust.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of these products and their components on the human reproductive system.

Mutagenicity: These products are not reported to produce mutagenic effects in humans.
Embryotoxicity These products are not reported to produce embryotoxic effects in humans.
Teratogenicity: These products are not reported to cause teratogenic effects in humans. Studies on test animals exposed to relatively high doses of Copper (a component of this product) indicate adverse teratogenic effects.
Reproductive Toxicity: These products are not reported to cause reproductive effects in humans. Studies on test animals exposed to relatively high doses of Copper (a component of these products) indicate adverse reproductive effects.

A mutagen is a chemical, which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical, which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical, which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance, which interferes in any way with the reproductive process.

BIOLOGICAL EXPOSURE INDICES: Currently, there are no Biological Exposure Indices (BEIs) associated with the components of these products.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin and respiratory disorders, may be aggravated by prolonged overexposures to the fumes of these products.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: The components of these products occur naturally in the environment and are expected to persist in the environment for an extended period of time. The components will react with water and air to form a variety of metal oxide compounds. The following environmental data are available for the components of these products.

SILVER: Solubility: Insoluble. Many silver salts are only slightly soluble and so silver cations will rapidly be reduced to lower levels. The Biological half-life for silver is a few days for animals and up to 50 days for humans.

12. ECOLOGICAL INFORMATION (Continued)

ENVIRONMENTAL STABILITY (continued):

COPPER: Solubility: Insoluble. There is no evidence of any biotransformation for copper compounds. Copper is accumulated by all plants and animals. BCF Algae = 12; plants = 1,000; invertebrate = 1,000, fish = 667 and fish =200(Soluble copper salts).

PHOSPHOROUS: Solubility in water 1 part/300,000 parts water. Radioactive phosphorous has been concentrated by factors of 75,000 by waterfowl and 850,000 by aquatic life.

TIN: Solubility: Insoluble in water.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: Animal studies on copper indicate various health effects after ingestion and exposures. Specific data on test animals are available, but are not presented in this Material Safety Data Sheet.

EFFECT OF CHEMICAL ON AQUATIC LIFE: These products are expected to cause adverse effects on aquatic life. Low chronic aquatic limits indicate a high chronic hazard, it may be concentrated to toxic levels in food chain. The following aquatic toxicity data are available for the components:

COPPER:
LC_{50}(fathead minnows) = 0.14 ppm in hard water
LC_{50}(bluegill) = 0.02 ppm in soft water
LC_{50}(brook trout) = 0.09 ppm in soft water

SILVER: 0.1 ppm is toxic to bacteria and aquatic life. Discharge into marine waters should not exceed /20 of 96 hour LC50, 0.25-0.025 mg/kg/day.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. These products, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

EPA WASTE NUMBER: Waste of these products should be analyzed for Toxicity Characteristic Leaching Procedure chemicals, as follows: D011 (Silver), Regulated Level: 5.0 mg/L.

14. TRANSPORTATION INFORMATION

THIS MATERIAL IS NOT HAZARDOUS (Per 49 CFR 172.101) BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Not applicable
HAZARD CLASS NUMBER and DESCRIPTION: Not applicable
UN IDENTIFICATION NUMBER: Not applicable
PACKING GROUP: Not applicable
DOT LABEL(S) REQUIRED: Not applicable
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER, 1996: Not applicable
MARINE POLLUTANT: No component of these products are designated as a marine pollutant by the Department of Transportation (49 CFR 172.101, Appendix B).

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: THIS MATERIAL IS NOT CONSIDERED AS DANGEROUS GOODS.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of these products are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows:

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
Copper	No	Yes	Yes
Silver	No	Yes	Yes
Phosphorous	Yes	Yes	Yes (yellow or white)

U.S. SARA THRESHOLD PLANNING QUANTITY: Phosphorous = 100 lbs.

U.S. TSCA INVENTORY STATUS: The components of these products are listed on the TSCA Inventory.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Copper = 5000 lb.; Silver = 1,000 lb.; (for metal particles under 100 micrometers in diameter). Phosphorous = 1 lb.

OTHER U.S. FEDERAL REGULATIONS: Not applicable.

15. REGULATORY INFORMATION (Continued)

U.S. STATE REGULATORY INFORMATION: The components of these products are covered under specific State regulations, as denoted below:

Alaska-Designated Toxic and Hazardous Substances: Copper, fume, dust and mist, Phosphorous (yellow), Tin.
California-Permissible Exposure Limits for Chemical Contaminants: Copper, Silver, Phosphorous (yellow),Tin.
Florida-Substance List: Copper fume, dust and mist; Silver, Phosphorous (yellow),Tin.
Illinois-Toxic Substance List: Copper, Silver, and Phosphorous.
Kansas-Section 302/313 List: Copper and compounds.
Massachusetts-Substance List: Phosphorous (yellow),Tin.
Michigan-Critical Materials Register: Copper.
Minnesota-List of Hazardous Substances: Copper, fume; Silver, Phosphorous (yellow),Tin.
Missouri-Employer Information/Toxic Substance List: Copper; Silver, Phosphorous (yellow),Tin.
New Jersey-Right to Know Hazardous Substance List: Copper, Silver, and Tin.
North Dakota-List of Hazardous Chemicals, Reportable Quantities: Copper, Silver, and Phosphorous.
Pennsylvania-Hazardous Substance List: Copper, Silver, Phosphorous, and Tin.
Rhode Island-Hazardous Substance List: Copper, fume, dust, mist; Silver, Phosphorous (red, white, yellow) ,Tin.
Texas-Hazardous Substance List: Copper, fume, Phosphorous (yellow) ,Tin.
West Virginia-Hazardous Substance List: Copper, fume, Phosphorous (yellow) ,Tin.
Wisconsin-Toxic and Hazardous Substances: Copper, fume, Phosphorous (yellow) ,Tin.

CALIFORNIA PROPOSITION 65: The components of these products are not on the California Proposition 65 lists.

LABELING (Precautionary Statements):

WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

HEAT RAYS (INFRARED RADIATION) from flame or hot metal can injure your eyes.

- Before Use, read and understand the manufacturer's instructions. Material Safety Data Sheets (MSDSs), and your employer's safety policies.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the flame, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- See American National Standard Z49.1 *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126. OSHA Safety and Health Standards, available from the U.S. Government Printing Office, Washington, DC 20402.

DO NOT REMOVE THIS INFORMATION.

ADDITIONAL CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of these products are on the DSL Inventory.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: The components of these products are not on the CEPA Priorities Substances Lists.

CANADIAN WHMIS SYMBOLS: Not applicable.

16. OTHER INFORMATION

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc.
9163 Chesapeake Drive, San Diego, CA 92123-1002
619/565-0302

DATE OF PRINTING: March 29, 2000

This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard (29 CFR 1910.1200). Other government regulations must be reviewed for applicability to this product. The information contained herein relates only to the specific product. If the product is combined with other materials, all component properties must be considered. To the best of the J.W. Harris Company, Inc.'s knowledge, the information and recommendations contained in this publication are reliable and accurate as of the date of issue. However, accuracy, suitability, or completeness are not guaranteed, and no warranty, guarantee, or representation, expressed or implied, is made by J.W. Harris Co., Inc. as to the absolute correctness or sufficiency of any representation contained in this and other publications; J.W. Harris Co., Inc. assumes no responsibility in connection therewith; nor can it be assumed that all acceptable safety measures may not be required under particular or exceptional conditions or circumstances. Data may be changed from time to time. Be sure to consult the latest edition.

DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these, which are commonly used, include the following:

CAS #: This is the Chemical Abstract Service Number, which uniquely identifies each constituent. It is used as a unique identifier for the chemical.

EXPOSURE LIMITS IN AIR:

ACGIH - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. TLV - Threshold Limit Value - an airborne concentration of a substance, which represents conditions under which it is generally believed that nearly all workers, may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (TWA), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level (C). Skin absorption effects must also be considered. OSHA - U.S. Occupational Safety and Health Administration. PEL - Permissible Exposure Limit - This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL, which was vacated by Court Order. IDLH - Immediately Dangerous to Life and Health - This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury. The DFG - MAK is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. NIOSH is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (OSHA). NIOSH issues exposure guidelines called Recommended Exposure Levels (RELs). When no exposure guidelines are established, NE is made for reference.

HAZARD RATINGS:

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: This rating system was developed by the National Paint and Coating Association and has been adopted by industry to identify the degree of chemical hazards. Health Hazard: 0 (minimal acute or chronic exposure hazard); 1 (slight acute or chronic exposure hazard); 2 (moderate acute or significant chronic exposure hazard); 3 (severe acute exposure hazard; onetime overexposure can result in permanent injury and may be fatal); 4 (extreme acute exposure hazard; onetime overexposure can be fatal). Flammability Hazard: 0 (minimal hazard); 1 (materials that require substantial pre-heating before burning); 2 (combustible liquid or solids; liquids with a flash point of 38-93°C [100-200°F]); 3 (Class IB and IC flammable liquids with flash points below 38°C [100°F]); 4 (Class IA flammable liquids with flash points below 23°C [73°F] and boiling points below 38°C [100°F]. Reactivity Hazard: 0 (normally stable); 1 (material that can become unstable at elevated temperatures or which can react slightly with water); 2 (materials that are unstable but do not detonate or which can react violently with water); 3 (materials that can detonate when initiated or which can react explosively with water); 4 (materials that can detonate at normal temperatures or pressures). PPE Rating X: Special attention should be given to PPE selection.

NATIONAL FIRE PROTECTION ASSOCIATION: Health Hazard: 0 (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); 1 (materials that on exposure under fire conditions could cause irritation or minor residual injury); 2 (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); 3 (materials that can on short exposure could cause serious temporary or residual injury); 4 (materials that under very short exposure causes death or major residual injury). Flammability Hazard and Reactivity Hazard: Refer to definitions for "Hazardous Materials Identification System".

FLAMMABILITY LIMITS IN AIR:

Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). Flash Point - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

TOXICOLOGICAL INFORMATION:

Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: LD_{50} - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; LC_{50} - Lethal Concentration (gases) which kills 50% of the exposed animals; ppm concentration expressed in parts of material per million parts of air or water; mg/m^3 concentration expressed in weight of substance per volume of air; mg/kg quantity of material, by weight, administered to a test subject, based on their body weight in kg. Other measures of toxicity include TDLo, the lowest dose to cause a symptom and TCLo the lowest concentration to cause a symptom; TDo, LDLo, and LDo, or TC, TCo, LCLo, and LCo, the lowest dose (or concentration) to cause lethal or toxic effects. Cancer Information: The sources are: IARC - the International Agency for Research on Cancer; NTP - the National Toxicology Program, RTECS - the Registry of Toxic Effects of Chemical Substances, OSHA and CAL/OSHA. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. Other Information: BEI - ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. Ecological Information: EC is the effect concentration in water. BCF = Bioconcentration Factor, which is used to determine if a substance will concentrate in lifeforms which consume contaminated plant or animal matter. TL_m = median threshold limit; Coefficient of Oil/Water Distribution is represented by log K_{ow} or log K_{oc} and is used to assess a substance's behavior in the environment.

REGULATORY INFORMATION:

This section explains the impact of various laws and regulations on the material. U.S.: EPA is the U.S. Environmental Protection Agency. DOT is the U.S. Department of Transportation. SARA is the Superfund Amendments and Reauthorization Act. TSCA is the U.S. Toxic Substance Control Act. CERCLA (or Superfund) refers to the Comprehensive Environmental Response, Compensation, and Liability Act. Labeling is per the American National Standards Institute (ANSI Z129.1). CANADA: CEPA is the Canadian Environmental Protection Act. WHMIS is the Canadian Workplace Hazardous Materials Information System. TC is Transport Canada. DSL/NDSL are the Canadian Domestic/Non-Domestic Substances Lists.

Maintenance

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**** MATERIAL SAFETY DATA SHEET *****

Version Date.....08/02/99 STAINLESS STEEL BARE WIRE A=NIC & CHR
Print Date.....09/02/99

SECTION 1 PRODUCT IDENTIFICATION

COMPANY NAME WHO SENT MSDS... HARRIS WELCO
COMPANY ADDRESS..... 1051 YORK ROAD KINGS MOUNTAIN, NC 28086 (704) 739-6421
EMERGENCY PHONE NUMBER..... (800) 424-9300
MSDS VERSION NUMBER..... 3
TRADE NAME..... STAINLESS STEEL AWS: 308, 308L, 308H, 308LSI, 309, 309L, 309LSI 310, 312, 316, 316L, 316LSI, 317, 317L, 347, 410, 320, 320LR, 330, 410NiMo, 630, 505, 502, 409CB, 420, 430, 2209
HAZARD RATING (HMIS)..... HEALTH-3 FLAMMABILITY-0 REACTIVITY-0 OTHER-2
HMIS DESIGNATION KEY..... 4-SEVERE HAZARD 3-SERIOUS HAZARD 2-MODERATE HAZARD 1-SLIGHT HAZARD 0-MINIMAL HAZARD

SECTION 2 HAZARDOUS COMPONENTS

MATERIAL	% BY WEIGHT	CAS NUMBER	OSHA PEL	ACGIH TLV (Mg/M3)	SEC 313
IRON	BALANCE	7439-89-6		10 AS Fe2O3	NA
CHROMIUM	11.5-37.0	7440-47-3		.05 CHROMIUM VI	YES
NICKEL	.06-37.0	7440-02-0		1	YES
MANGANESE	0.6-14.0	7439-96-5		1	YES
SILICON	.30-5.0	7440-21-3		3 AS SiO2	NA
MOLYBDENUM	.05-6.0	7439-98-7		10	NA
CARBON	0-1.0%	7440-44-0		2	NA
PHOSPHOROS	0-0.50%	7723-14-0		0.02-0.1	NA
SULPHUR	0-0.50	7704-34-9		NA	NA
NITROGEN	0-0.50	7727-37-9		NA	NA
COPPER	0-5.0	7440-50-8		1	NA
NIOBIUM	0-1.0	7440-03-1		NA	NA

SECTION 3 PHYSICAL PROPERTIES

BOILING POINT..... NA
MELTING POINT..... NA
VAPOR PRESSURE..... NA
VAPOR DENSITY (AIR = 1)... NA
SOLUBILITY IN WATER..... NA
SPECIFIC GRAVITY..... NA
EVAPORATION RATE..... NA
APPEARANCE AND ODOR..... BARE FILLER METALS ARE SOLID WIRE, SHINY SILVER APPEARANCE

SECTION 4 FIRE AND EXPLOSION DATA

FLASH POINT..... NONFLAMMABLE
EXTINGUISING MEDIA... SEE BELOW
SPECIAL PROCEDURES... SEE BELOW
UNUSUAL HAZARDS..... WELDING ARC AND SPARKS CAN IGNITE COMBUSTIBLES AND FLAMMABLES. REFER TO AMERICAN NATIONAL STANDARD Z49.1 FOR FIRE PREVENTION DURING THE USE OF WELDING AND ALLIED PROCEDURES

SECTION 5 REACTIVITY DATA

STABILITY..... STABLE
CONDITIONS TO AVOID..... NONE UNLESS OTHERWISE SPECIFIED
HAZARDOUS POLYMERIZATION..... NA

(Continued on next page.)

SECTION 5 REACTIVITY DATA CONT'D

INCOMPATABILITY..... NONE

HAZARDOUS DECOMPOSITION PRODUCTS... THE COMPOSITION AND QUALITY OF WELDING FUMES AND GASES ARE DEPENDENT UPON THE METAL BEING WELDED, THE PROCESS, PROCEDURE AND ELECTRODES USED. OTHER CONDITIONS WHICH ALSO INFLUENCE THE COMPOSITION AND QUANTITY OF FUMES AND GASES TO WHICH WORKERS MAY BE EXPOSED INCLUDE: COATINGS ON METAL BEING WELDED (SUCH AS PAINT, PLATING, OR GALVANIZING), THE NUMBER OF WELDERS AND VOLUME OF THE WORK AREA, THE QUALITY AND AMOUNT OF VENTILATION, THE POSITION OF WELDER'S HEAD WITH RESPECT TO FUME PLUME, AND THE PRESENCE OF CONTAMINANTS IN ATMOSPHERE (CHLORINATED HYDROCARBON VAPORS FROM CLEANING AND DEGREASING ACTIVITIES). WHEN ELECTRODE IS CONSUMED, THE FUME AND GAS DECOMPOSITION PRODUCTS GENERATED ARE DIFFERENT IN PERCENT AND FORM FROM INGREDIENTS IN SECTION 2. FUME AND GAS DECOMPOSITION PRODUCTS, AND NOT INGREDIENTS IN ELECTRODE, ARE IMPORTANT. CONCENTRATION OF GIVEN FUME OR GAS COMPONENT MAY DECREASE OR INCREASE BY MANY TIMES ORIGINAL CONCENTRATION. NEW COMPOUNDS IN ELECTRODE MAY FORM. DECOMPOSITION PRO DUCTS OF NORMAL OPERATION INCLUDE THOSE ORIGINATING FROM VOLATILIZATION, REACTION, OR OXIDATION OF MATERIALS IN SECTION 2, PLUS THOSE FROM BASE METAL AND COATING, ETC., AS NOTED ABOVE. REASONABLY EXPECTED FUME CONSTITUENTS OF PRODUCT COULD INCLUDE PRIMARILY OXIDES OF IRON; SECONDARILY OXIDES OF CHROMIUM, NICKEL, MANGANESE, SILICON, AND MOLYBDENUM. PRESENT OSHA EXP. LIMITS FOR HEXAVALENT-CHROMIUM IS .05 MG/M3 AND NICKEL 1MG/M3 WHICH WILL RESULT IN SIGNIFICANT REDUCTION FROM 5MG/M3 GENERAL FUME LEVEL. GASEOUS REACTION IN PRODUCTS MAY INCLUDE CARBON MONOXIDE AND CARBON DIOXIDE. OZONE AND NITROGEN OXIDES MAY BE FORMED BY THE RADIATION FROM ARC, IN ADDITIOIN TO SHIELDING GASES LIKE ARGON AND HELIUM WHEN EMPLOYED. ONE RECOMMENDED WAY TO DETERMINE COMPOSITION AND QUANTITY OF FUMES AND GASES ARE TO TAKE AIR SAMPLE FROM INSIDE WELDER'S HELMET IF WORN OR IN BREATHING ZONE. SEE ANSI/AWS F1L-87, AVAILABLE FROM THE AMERICAN WELDING SOCIETY. SEE AWS PUBLICATION: "FUMES AND GASES IN THE WELDING ENVIROMENT" AND AWS "EFFECTS OF WELDING ON HEALTH 1X."

SECTION 6 HEALTH HAZARD DATA

ROUTES OF ENTRY..... INHALATION SKIN INGESTION

HEALTH HAZARDS..... ELECTRIC ARC-WELDING MAY CREATE: FUMES AND GASES CAN BE DANGEROUS. ARC RAYS CAN INJURE EYES AND BURN SKIN. ELECTRIC SHOCK CAN KILL.

CARCINOGENICITY..... THE STATE OF CALIFORNIA REQUIRES THE FOLLOWING INFORMATION: WARNING: THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

SIGNS & SYMPTOMS OF EXPOSURE..... SEE BELOW.

MEDICAL CONDITIONS FROM EXPOSURE... SHORT TERM TO WELDING FUMES-DIZZINESS, NAUSEA, DRYNESS & IRRITATION OF NOSE, EYES THROAT, CHEST TIGHTNESS, FEVER, ALLERGIC REACTION. LONG TERM-SIDEROSIS, BELIEVED TO AFFECT PULMONARY FUNCTION.

EMERGENCY & FIRST AID..... NICKEL AND CHROMIUM COMPOUNDS ARE REQUIRED BY OSHA TO BE CONSIDERED CARCINOGENIC. REMOVE TO FRESH AIR, OBTAIN MEDICAL ATTENTION. EMPLOY FIRST AIR TECHNIQUES RECOMMENDED BY AM. RED CROSS.

ADDITIONAL INFORMATION..... NA

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL AND LEAK PROCEDURES..... NA

WASTE AND DISPOSAL METHOD..... PREVENT WASTE FROM CONTAMINATING SURROUNDING ENVIRONMENT. DISCARD ANY PRODUCT RESIDUE, DISPOSABLE CONTAINER OR LINER IN ENVIROMNENTALLY ACCEPTABLE MANNER, IN FULL COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

HANDLING AND STORING PRECAUTIONS... USE EXHAUST SYSTEM. MAKE SURE INHALED AIR DOES NOT CONTAIN FUME CONSTITUENTS ABOVE PERMISSIBLE EXPOSURE LEVELS. OTHER PRECAUTIONS FOR ADDITIONAL SAFETY INFORMATION ON WELDING AND CUTTING, SEE AMERICAN STANDARD Z49.1-1983, SAFETY IN WELDING AND CUTTING, AND THE WELDING HANDBOOK, VOL. 1, CHAPTER 9, SAFE PRACTICES IN WELDING AND CUTTING, BOTH AVAILABLE FROM AM WELDING SOCIETY INC., 550 N.W. LEJNUE RD., PO BOX 351040, MIAMI, FL 33135. PHONE 305-443-9353.

(Continued on next page.)

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE CONT'D

OTHER PRECAUTIONS..... NA

SECTION 8 CONTROL MEASURES

RESPIRATORY MEASURES..... USE RESPIRABLE FUME RESPIRATORY OR AIR SUPPLIED RESPIRATOR WHEN IN CONFINED SPACE OR LOCAL EXHAUST DOES NOT KEEP EXPOSURE BELOW RECOMMENDED EXPOSURE LIMIT

VENTILATION..... USE ENOUGH LOCAL VENTILATION,AND LOCAL EXHAUST AT ARC TO KEEP FUMES AND GASES FROM WORKER'S BREATHING ZONE AND GENERAL AREA. TRAIN WORKER TO KEEP HEAD OUT OF FUMES

PROTECTIVE GLOVES..... SEE OTHER PROTECTIVE EQUIPMENT

EYE PROTECTION..... WEAR HELMET, FACE SHIELD WITH FILTER LENS, PROTECTIVE SCREENS, FLASH GOGGLES TO SHIELD OTHERS. START WITH SHADE TOO DARK THEN GO TO LIGHTER SHADE WHICH GIVES SUFFICIENT VIEW OF WELD ZONE.

OTHER PROTECTIVE EQUIPMENT... HAND, HEAD, BODY PROTECTION TO PREVENT INJURY FROM RADIATION, SPARKS AND ELECTRICAL SHOCK. DO NOT TOUCH LIVE ELECTRICAL PARTS AND INSULATE FROM WORK AND GROUND.

WORK/HYGIENIC PRACTICES..... FOR MAXIMUM SAFETY: BE CERTIFIED FOR, AND WEAR A RESPIRATOR AT ALL TIMES WHEN WELDING OR BRAZING.

SECTION 9 DISCLAIMER

THIS DATA IS BELIEVED TO BE ACCURATE. HARRIS WEL

SECTION 10 ADDITIONAL INFORMATION

NA = NOT AVAILABLE CARCINOGENITY INFORMATION: NICKEL AND CHROMIUM COMPOUNDS ARE REQUIRED BY OSHA TO BE CONSIDERED CARCINOGENIC.

SECTION 11 ADDITIONAL INFORMATION

Maintenance

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**** MATERIAL SAFETY DATA SHEET ***** "4130"

Version Date.....08/02/99 4130 A=CHROMIUM
Print Date.....12/06/99

SECTION 1 PRODUCT IDENTIFICATION

COMPANY NAME WHO SENT MSDS... HARRIS WELCO
COMPANY ADDRESS..... 1051 YORK ROAD KINGS MOUNTAIN, NC 28086
EMERGENCY PHONE NUMBER..... (800)-424-9300
MSDS VERSION NUMBER..... 2
TRADE NAME..... 4130
HAZARD RATING (HMIS)..... HEALTH-3 FLAMMABILITY-1 REACTIVITY-0 OTHER-2
HMIS DESIGNATION KEY..... 4-SEVERE HAZARD 3-SERIOUS HAZARD 2-MODERATE HAZARD 1-SLIGHT HAZARD 0-MINIMAL HAZARD

SECTION 2 HAZARDOUS COMPONENTS

MATERIAL	% BY WEIGHT	CAS NUMBER	OSHA PEL	ACGIH TLV (Mg/M3)	SEC 313
IRON	55.-70.0	7439-89-6		10 AS FE203	NA
MANGANESE	<.55	7439-96-5		1	YES
SILICON	<.2	7440-21-3		3 AS SiO2	NA
CHROMIUM	.9-.94	7440-47-3		.05 (CHROMIUM VI)	YES
MOLYBDENUM	<.18	7439-98-7		10	NA

SECTION 3 PHYSICAL PROPERTIES

BOILING POINT..... NA
MELTING POINT..... NA
VAPOR PRESSURE..... NA
VAPOR DENSITY (AIR = 1)... NA
SOLUBILITY IN WATER..... NA
SPECIFIC GRAVITY..... NA
EVAPORATION RATE..... NA
APPEARANCE AND ODOR..... SOLID WIRE OR ROD.

SECTION 4 FIRE AND EXPLOSION DATA

FLASH POINT..... NA
EXTINGUISING MEDIA... SEE BELOW
SPECIAL PROCEDURES... SEE BELOW
UNUSUAL HAZARDS..... WELDING ARC AND SPARKS CAN IGNITE COMBUSTIBLES AND FLAMMABLES. REFER TO AMERICAN NATIONAL STANDARD Z49.1 FOR FIRE PREVENTION DURING THE USE OF WELDING AND ALLIED PROCEDURES

SECTION 5 REACTIVITY DATA

STABILITY..... STABLE
CONDITIONS TO AVOID..... NONE UNLESS OTHERWISE SPECIFIED
HAZARDOUS POLYMERIZATION..... NA
INCOMPATABILITY..... NONE
HAZARDOUS DECOMPOSITION PRODUCTS... THE COMPOSITION AND QUALITY OF WELDING FUMES AND GASES ARE DEPENDENT UPON THE METAL BEING WELDED, THE PROCESS, PROCEDURE AND ELECTRODES USED. OTHER CONDITIONS WHICH ALSO INFLUENCE THE COMPOSITION AND QUANTITY OF FUMES AND GASES TO WHICH WORKERS MAY BE EXPOSED INCLUDE: COATINGS ON METAL BEING WELDED (SUCH AS PAINT, PLATING, OR GALVANIZING), THE NUMBER OF WELDERS AND VOLUME OF THE WORK AREA, THE QUALITY AND AMOUNT OF VENTILATION, THE POSITION OF WELDER'S HEAD WITH RESPECT TO FUME PLUME, AND THE PRESENCE OF CONTAMINANTS IN ATMOSPHERE (CHLORINATED HYDROCARBON VAPORS FROM CLEANING AND DEGREASING ACTIVITIES). WHEN ELECTRODE IS CONSUMED, THE FUME AND GAS DECOMPOSITION PRODUCTS GENERATED ARE DIFFERENT IN PERCENT AND FORM FROM INGREDIENTS IN SECTION 2. FUME AND GAS DECOMPOSITION

(Continued on next page.)

SECTION 5 REACTIVITY DATA CONT'D

PRODUCTS, AND NOT INGREDIENTS IN ELECTRODE, ARE IMPORTANT. CONCENTRATION OF GIVEN FUME OR GAS COMPONENT MAY DECREASE OR INCREASE BY MANY TIMES ORIGINAL CONCENTRATION. NEW COMPOUNDS IN ELECTRODE MAY FORM. DECOMPOSITION PRO DUCTS OF NORMAL OPERATION INCLUDE THOSE ORIGINATING FROM VOLATILIZATION, REACTION, OR OXIDATION OF MATERIALS IN SECTION 2, PLUS THOSE FROM BASE METAL AND COATING, ETC., AS NOTED ABOVE. REASONABLY EXPECTED FUME CONSTITUENTS OF PRODUCT COULD INCLUDE PRIMARILY OXIDES OF IRON; SECONDARILY OXIDES OF CHROMIUM, NICKEL, MANGANESE, SILICON, AND MOLYBDENUM. PRESENT OSHA EXP. LIMITS FOR HEXAVALENT-CHROMIUM IS .05 MG/M3 AND NICKEL 1MG/M3 WHICH WILL RESULT IN SIGNIFICANT REDUCTION FROM 5MG/M3 GENERAL FUME LEVEL. GASEOUS REACTION IN PRODUCTS MAY INCLUDE CARBON MONOXIDE AND CARBON DIOXIDE. OZONE AND NITROGEN OXIDES MAY BE FORMED BY THE RADIATION FROM ARC, IN ADDITIOIN TO SHIELDING GASES LIKE ARGON AND HELIUM WHEN EMPLOYED. ONE RECOMMENDED WAY TO DETERMINE COMPOSITION AND QUANTITY OF FUMES AND GASES OT TO TAKE AIR SAMPLE FROM INSIDE WELDER'S HELMET IF WORN OR IN BREATHING ZONE. SEE AWS F1.1 AND AWS F1.2 -1985,AVAILABLE FROM THE AMERICAN WELDING SOCIETY. SEE AWS PUBLICATION: "FUMES AND GASES IN THE WELDING ENVIRONMENT".

SECTION 6 HEALTH HAZARD DATA

ROUTES OF ENTRY..... NA

HEALTH HAZARDS..... ELECTRIC ARC-WELDING MAY CREATE: FUMES AND GASES CAN BE DANGEROUS. ARC RAYS CAN INJURE EYES AND BURN SKIN. ELECTRIC SHOCK CAN KILL.

CARCINOGENICITY..... THE STATE OF CALIFORNIA REQUIRES THE FOLLOWING INFORMATION: WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

SIGNS & SYMPTOMS OF EXPOSURE..... SEE BELOW.

MEDICAL CONDITIONS FROM EXPOSURE... SHORT TERM TO WELDING FUMES-DIZZINESS, NAUSEA, DRYNESS & IRRITATION OF NOSE, EYES THROAT, CHEST TIGHTNESS, FEVER, ALLERGIC REACTION. LONG TERM-SIDEROSIS, BELIEVED TO AFFECT PULMONARY FUNCTION.

EMERGENCY & FIRST AID..... REMOVE TO FRESH AIR, OBTAIN MEDICAL ATTENTION. EMPLOY FIRST AIR TECHNIQUES RECOMMENDED BY AM. RED CROSS.

ADDITIONAL INFORMATION..... NA

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL AND LEAK PROCEDURES..... NA

WASTE AND DISPOSAL METHOD..... PREVENT WASTE FROM CONTAMINATING SURROUNDING ENVIRONMENT. DISCARD ANY PRODUCT RESIDUE, DISPOSABLE CONTAINER OR LINER IN ENVIROMNENTALLY ACCEPTABLE MANNER, IN FULL COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

HANDLING AND STORING PRECAUTIONS... USE EXHAUST SYSTEM. MAKE SURE INHALED AIR DOES NOT CONTAIN FUME CONSTITUENTS ABOVE PERMISSIBLE EXPOSURE LEVELS. OTHER PRECAUTIONS FOR ADDITIONAL SAFETY INFORMATION ON WELDING AND CUTTING, SEE AMERICAN STANDARD Z49.1-1983, SAFETY IN WELDING AND CUTTING, AND THE WELDING HANDBOOK, VOL. 1, CHAPTER 9, SAFE PRACTICES IN WELDING AND CUTTING, BOTH AVAILABLE FROM AM WELDING SOCIETY INC., 550 N.W. LEJNUE RD., PO BOX 351040, MIAMI, FL 33135. PHONE 305-443-9353.

OTHER PRECAUTIONS..... NA

SECTION 8 CONTROL MEASURES

RESPIRATORY MEASURES..... USE RESPIRABLE FUME RESPIRATORY OR AIR SUPPLIED RESPIRATOR WHEN IN CONFINED SPACE OR LOCAL EXHAUST DOES NOT KEEP EXPOSURE BELOW RECOMMENDED EXPOSURE LIMIT

VENTILATION..... USE ENOUGH LOCAL VENTILATION,AND LOCAL EXHAUST AT ARC TO KEEP FUMES AND GASES FROM WORKER'S BREATHING ZONE AND GENERAL AREA. TRAIN WORKER TO KEEP HEAD OUT OF FUMES

PROTECTIVE GLOVES..... SEE OTHER PROTECTIVE EQUIPMENT

EYE PROTECTION..... WEAR HELMET, FACE SHIELD WITH FILTER LENS, PROTECTIVE SCREENS, FLASH GOGGLES TO SHIELD OTHERS. START WITH SHADE TOO DARK THEN GO TO LIGHTER SHADE WHICH GIVES SUFFICIENT VIEW OF WELD ZONE.

OTHER PROTECTIVE EQUIPMENT... HAND, HEAD, BODY PROTECTION TO PREVENT INJURY FROM RADIATION, SPARKS AND ELECTRICAL SHOCK. DO NOT TOUCH LIVE ELECTRICAL PARTS AND INSULATE FROM WORK AND GROUND.

(Continued on next page.)

SECTION 8 CONTROL MEASURES CONT'D

WORK/HYGIENIC PRACTICES..... FOR MAXIMUM SAFETY: BE CERTIFIED FOR, AND WEAR A RESPIRATOR AT ALL TIMES WHEN WELDING OR BRAZING.

SECTION 9 DISCLAIMER

THIS DATA IS BELIEVED TO BE ACCURATE. HARRIS WEL

SECTION 10 ADDITIONAL INFORMATION

NA = NOT AVAILABLE CARCINOGENITY INFORMATION; CHROMIUM COMPOUND ARE REQUIRED BY OSHA TO BE CONSIDERED CARCINOGENIC.

SECTION 11 ADDITIONAL INFORMATION

Maintenance

1525 "TRISOD"

Sodium Phosphate, Tribasic, Anhydrous

MATERIAL SAFETY DATA SHEET

NATURE SAVER™ FAX MEMO 01616	Date	# of Pages ▶
To HEATHER	From	
Co./Dept. WOLVERINE	Co. EK INDUSTRIES	
Phone # Worldwide	Phone #	
Fax # 616-866-1049	Fax #	

E K INDUSTRIES, INC.
1403 HERKIMER STREET
JOLIET, IL 60432

PHONE (815) 723-4000
EMERGENCY PHONE (800)424-9300 (CHEMTREC)

SECTION I - PRODUCT IDENTIFICATION

NAME: Sodium Phosphate, Tribasic, Anhydrous
SYNONYMS: TSP, Trisodium Phosphate
CAS NO: 7601-54-9
FORMULA: Na3PO9
DATE OF ISSUE: 6-15-00

****LABEL HAZARD STATEMENT AND PRECAUTIONS****

WARNING! CAUSES EYE IRRITATION. MAY CAUSE G.I., SKIN AND RESPIRATORY TRACT IRRITATION. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

SECTION II - HAZARDOUS INGREDIENTS AND EXPOSURE LIMITS

INGREDIENT/CAS NO	OSHA PEL	ACGIH TLV
Sodium Phosphate Tribasic, Anhydrous/7601-54-9	N/E	N/E

SECTION III - HEALTH HAZARDS DATA

ROUTES OF ENTRY AND EFFECTS OF OVEREXPOSURE

INHALATION: May cause respiratory tract irritation.
SKIN CONTACT: May cause irritation.
EYE CONTACT: Causes irritation.
SKIN ABSORPTION: N/I
INGESTION: May cause G.I. irritation.
CHRONIC: Similar to acute effects.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/I
CARCINOGENICITY: None

****FIRST AID PROCEDURES****

EYE CONTACT: Immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

SKIN CONTACT: Immediately flush with plenty of water for at least 15 minutes while removing contaminated garments. Get medical attention for persistent irritation.

INHALATION: Remove to fresh air. Get Medical attention for any breathing difficulty.

INGESTION: DO NOT induce vomiting. If conscious, give large amounts of water to drink. Get medical attention.

SECTION IV - PHYSICAL/CHEMICAL CHARACTERISTICS
==========

SOLUBILITY IN WATER: >10%
VAPOR PRESSURE (mm Hg): N/I
SPECIFIC GRAVITY: 2.53
EVAPORATION RATE: N/I
BOILING POINT (C): N/I
VAPOR DENSITY: N/I
MELTING POINT (C): 1340
APPEARANCE AND ODOR: White solid. Odorless.

SECTION V - FIRE/EXPLOSION HAZARD DATA
==========

FLASH POINT (C): Not flammable.
AUTOIGNITION TEMPERATURE (C): Does not apply
FLAMMABLE LIMITS (%) : Does not apply.
EXTINGUISHING MEDIA: Suitable for surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive-pressure mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/I

SECTION VI - REACTIVITY DATA
==========

STABILITY: Stable
CONDITIONS TO AVOID: Excessive heat
MATERIALS TO AVOID: Acids
HAZARDOUS DECOMPOSITION PRODUCTS: Sodium oxides, phosphorous oxides.
HAZARDOUS POLYMERIZATION: Does not occur.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED: Moisten spill, scoop up and containerize for disposal.

WASTE DISPOSAL METHOD: Dispose in accordance with all applicable federal, state, and local environmental regulations.

SECTION VIII - CONTROL MEASURES

VENTILATION: Local or general.
RESPIRATORY PROTECTION: Full face dust/mist respirator, if conditions require.
EYE PROTECTION: Chemical safety goggles and/or full face shield.
SKIN PROTECTION: Gloves, lab coat and impervious apron.

SECTION IX - STORAGE

Store tightly closed in a cool place.

THE INFORMATION CONTAINED HEREIN IS PROVIDED IN GOOD FAITH AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, E K INDUSTRIES, INC. MAKES NO REPRESENTATION AS TO THE COMPREHENSIVENESS OR ACCURACY OF THE INFORMATION. IT IS EXPECTED THAT INDIVIDUALS RECEIVING THE INFORMATION WILL EXERCISE THEIR INDEPENDENT JUDGEMENT IN DETERMINING ITS APPROPRIATENESS FOR A PARTICULAR PURPOSE. ACCORDINGLY, E K INDUSTRIES, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES OF ANY KIND RESULTING FROM THE USE OF OR RELIANCE UPON SUCH INFORMATION. NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR TO THE PRODUCT TO WHICH THE INFORMATION REFERS.

PAT-CHEM

DAY-GLO COLOR CORP.

Wolverine World Wide, Inc.
Leathers Division
MSDS Sheets & Codes

7-3-99

ERSONAL HEALTH CODES:

A SAFETY GLASSES
B SAFETY GLASSES, GLOVES
C SAFETY GLASSES, GLOVES, APRON
D FACE SHIELD, GLOVES, APRON
E SAFETY GLASSES, GLOVES, DUST RESPIRATOR
F SAFETY GLASSES, GLOVES, APRON, DUST RESPIRATOR
G SAFETY GLASSES, GLOVES, DUST & VAPOR RESPIRATOR
H GOGGLES, GLOVES, APRON, DUST & VAPOR RESPIRATOR
I SAFETY GLASSES, GLOVES, DUST & VAPOR RESPIRATOR
J GOGGLES, GLOVES, APRON, DUST & VAPOR RESPIRATOR
K AIR MASK, GLOVES, FULL SUIT, BOOTS
X SEE MSDS FOR SPECIFIC INSTRUCTIONS

All Chemical Products are listed here for the department.
Only Hazardous Chemical Products are in the dept. MSDS Books.

HAZARD INDEX CODES:

0 MINIMAL HAZARD
1 SLIGHT HAZARD
2 MODERATE HAZARD
3 SERIOUS HAZARD
4 SEVERE HAZARD

EPA CATEGORIES:

1 IMMEDIATE
2 DELAYED
3 REACTIVITY
4 FIRE
5 SUDDEN REALEASE OF PRESSURE

DEPARTMENT #	DEPARTMENT NAME	DEPARTMENT LOCATION
11	POWER HOUSE	SW BLDG/BASEMENT OF LABORATORY
12	DISPOSAL PLANT	WEST AREA OF PROPERTY/RIVER FRONT
13	MAINTENANCE	LOWER LEVEL/CENTER WEST AREA OF BLDG
14	LABORATORY	SW BLDG/UNATTACHED TO TANNERY
17	TANYARD	NW AND CENTER WEST AREA OF BLDG/ON 3 LEVELS
19	COLOR	LOWER LEVEL/SE AND SW AREA OF BLDG
21	SPRAY	2ND LEVEL/NORTH END OF BLDG

PLANT #	PLANT NAME
05	CENTRAL STORES
06	SOLE PLANT & POLY PLANT
20	FACTORY A - ROCKFORD
24	FACTORY B - BIG RAPIDS
25	FACTORY F - ROCKFORD
28	PUERTO RICO
35	MFGR - QC LAB

CHEMICAL IDENTIFICATION NUMBER SYSTEM

example	01-XYZ	EXPERIMENTAL CHEMICAL/DEPT. 21
	21-XYZ	PRODUCTION CHEMICAL/DEPT. 21
	04-XYZ	EXPERIMENTAL CHEMICAL/DEPT. 14
	14-XYZ	PRODUCTION CHEMICAL/DEPT. 14
	24-XYZ	QC-LAB ANALYSIS/DEPT. 14

01-000383 EX-1384 UCOTHANE SOFT MSDS Date: 9/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	100 PPM

. . . . . End of # 01-00038 . . . . . .

04-000829 # 46 OIL MSDS Date: 9/91
Sup/Manuf: SALEM OIL & GREASE Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 DODECENE	68526-91-0	NE

. . . . . End of # 04-00082 . . . . . .

13-000150 1091 - POLYMERIC MSDS Date: 3/90
Sup/Manuf: REPUBLIC ROLLER CORP. Cat: RUBBER COMPOUND
Haz/Non-Haz:H Depts: 13 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 TRIMETHYOLPROPANE TRIMETHACRYLATE	3290-92-4	NE
2 DIOCTYL PHTHLATE;BIS 2-ETHYL HEXYL		
3 LEAD MONOXIDE (?)	1317-36-8	0.15 MG/M3

. . . . . End of # 13-00015 . . . . . .

13-000151 1092 - POLYMERIC MSDS Date: 3/90
Sup/Manuf: REPUBLIC ROLLER CORP. Cat: RUBBER COMPOUND
Haz/Non-Haz:H Depts: 13 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 TRIMETHYOLPROPANE TRIMETHACRYLATE	3290-92-4	NE
2 LEAD MONOXIDE (?)	1317-36-8	0.15 MG/M3

. . . . . End of # 13-00015 . . . . . .

01-000393 1973 DULL ASTACIN TOPCOAT MSDS Date: 3/90
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: H Indexes-> Health: 2 Fire: 3 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 XYLENE (20%)	1330-20-7	100 PPM
10 METHYL ETHYL KETONE (2%)	78-93-3	
11 ETHYL ACETATE	141-78-6	
12 NAPHTHA	64742-95-6	
2 TOLUENE (30%)	108-88-3	100 PPM
3 ETHYLENE GLYCOL METHYL ETHER (20%)	109-86-4	5 PPM
4 2-METHOXYETHYL ACETATE (7%)	110-49-6	5 PPN
5 BIS(2-ETHYLHEXYL)PHTHALATE (4%)	117-81-7	5 MG/M3
6 ISOPROPYL ALCOHOL	67-63-3	400 PPM
7 METHANOL (1.5%)	67-56-1	200 PPM
8 ISOBUTYL ACETATE	110-19-0	150 PPM
9 METHYL ACETATE	79-20-9	200 PPM

. . . . . End of # 01-00039 . . . . . .

01-000436 2000 RESIN CONC. MSDS Date: 8/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 21 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00043 . . . . . .

01-000382 2429 ASTACIN THINNER MSDS Date: 3/91
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 3 Fire: 3 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 METHYL CELLOSOLVE (30%)	109-86-4	5 PPM
2 CELLOSOLVE ACETATE (20%)	111-59-9	5 PPM
3 XYLENE (60%)	1330-20-7	100 PPM

. . . . . End of # 01-00038 . . . . . .

01-000301 24912 MSDS Date: 1/90
Sup/Manuf: PRIME LEATHER FINISHES Cat: LATEX
Haz/Non-Haz:H Depts: 21 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 01-00030 . . . . . .

01-000583 2678 OPCALIN WAX 203 MSDS Date: 8/92
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00058 . . . . . .

01-000584 2826 OPCALIN OIL 30/N MSDS Date: 5/92
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00058 . . . . . .

04-000321 344 MSDS Date: 4/86
Sup/Manuf: SALEM OIL & GREASE Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM SOLVENT		200 PPM

. . . . . End of # 04-00032 . . . . . .

01-000633 42 ADDITIVE MSDS Date: 8/92
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 METHYL CARBITOL (25%)	111-77-3	NE

. . . . . End of # 01-00063 . . . . . .

01-000533 47 WAX MSDS Date: 12/94
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 KAOLIN	1332-58-7	5 MG/M3

. . . . . End of # 01-00053 . . . . . .

01-000703 508710 BLK DISPERSION MSDS Date: 11/92
Sup/Manuf: RBH DISPERSIONS Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:BLOOD
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 GLYCOL ETHER (1.8%)	111-76-2	50 PPM
2 TRIETHYLAMINE	121-44-8	10 PPM
3 VOCS 71.4%		

. . . . . End of # 01-00070 . . . . . .

01-000518 609 WAX MSDS Date: 8/92
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 COCO AMIDES	61789-19-3	NE
2 SLACK WAX (PETROLEUM)	64742-61-6	NE

. . . . . End of # 01-00051 . . . . . .

01-000653 630 WAX EMULSION MSDS Date: 2/93
Sup/Manuf: BASF Cat: WAX DISPERSION
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PARAFFIN WAXES	8002-74-2	2 MG/M3
2 POLY(OXYETHYLENE) SORBITOL MONOSTEARATE	9005-67--8	NE

. . . . . End of # 01-00065 . . . . . .

01-000345 8163 PENETRANT MSDS Date: 11/90
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: H Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 2-BUTOXYETHANOL (70%)	111-76-2	25 PPM

. . . . . End of # 01-00034 . . . . . .

19-120281A ACETIC ACID 56% MSDS Date: 4/97
Sup/Manuf: EASTMAN CHEMICAL CO. Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 ACETIC ACID	64-19-7	10 PPM

. . . . . End of # 19-12028 . . . . . .

19-120281B ACETIC ACID 56% MSDS Date: 2/96
Sup/Manuf: HAVILAND PRODUCTS Cat: ACID
Haz/Non-Haz:H Depts: 14 19 Targ:NO KNOWN HAZARDS
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 ACETIC ACID	NE	NE

. . . . . End of # 19-12028 . . . . . .

44-000148 ACETIC ANHYDRIDE MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: N EPA: 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 ACETIC ANHYDRIDE	108-24-7	5 PPM

. . . . . End of # 44-00014 . . . . . .

44-000123 ACETONE MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 3 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ACETONE	67-64-1	750 PPM

. . . . . End of # 44-00012 . . . . . .

44-000167 ACETONITRILE MSDS Date: 5/96
Sup/Manuf: FISHER SCIENTIFIC Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 4 Reactivity: 1
SARA III?: N EPA: 1 2 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ACETONITRILE	75-05-8	40 PPM

. . . . . End of # 44-00016 . . . . . .

13-000103 ACETYLENE MSDS Date: 4/95
Sup/Manuf: BOC GASES Cat: GAS
Haz/Non-Haz:H Depts: 13 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 4 Reactivity: 0
SARA III?: N EPA: 1 3 4 5 Experimental ?: N

Component Information	CAS Number	Threshold
1 ACETYLENE	74-86-2	NE
2 ACETONE	67-64-1	750 PPM

. . . . . End of # 13-00010 . . . . . .

04-000883 ACID BROWN G-027-93 MSDS Date: 3/93
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPD (15%)	7440-48-4	NE
2 COBALT (2%)	7440-48-4	0.05 MG/M3

. . . . . End of # 04-00088 . . . . . .

11-000119 ACID STARCH INDICATOR POWDER R-0725 MSDS Date: 8/92
Sup/Manuf: TAYLOR TECH. Cat: CORROSIVE ACID
Haz/Non-Haz:H Depts: 11 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 2
SARA III?: N EPA: 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SULFAMIC ACID	5329-14-6	
2 STARCH	9050-36-6	

. . . . . End of # 11-00011 . . . . . .

19-240101 ACIDERM BROWN ER-N MSDS Date: 2/88
Sup/Manuf: BAYER CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24010 . . . . . .

19-240103 ACIDERM FAST ORANGE GS MSDS Date: 8/87
Sup/Manuf: MOBAY CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 WHITE MINERAL OIL	8042-47-5	5 MG/M3
2 SODIUM SULFATE	7767-82-6	NE

. . . . . End of # 19-24010 . . . . . .

04-000685 ACIDOL BLACK M-SRL MSDS Date: 2/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID BLACK 194 (CR+3 4%)	7440-47-3	0.5 MG/M3
2 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00068 . . . . . .

04-000684 ACIDOL BORDEAUX M-B MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID VIOLET 90 (CR+3 5%)	7440-47-3	0.5 MG/M3
2 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00068 . . . . . .

04-000681 ACIDOL BROWN M-BL MSDS Date: 5/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID BROWN 355 (CR+3 5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00068 . . . . . .

04-000682 ACIDOL DARK BLUE M-TR MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID BLUE 193 (CR+3 5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00068 . . . . . .

04-000692 ACIDOL GREEN M-FGL MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID GREEN 108 (CR+3 5%)	7440-47-3	0.5 MG/M3
2 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00069 . . . . . .

04-000683 ACIDOL ORANGE M-RL MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID ORANGE 142 (CR+3 4%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00068 . . . . . .

04-000690 ACIDOL RED M-BR MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID RED 362 (CR+3 5%)	7440-47-3	0.5 MG/M3
2 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00069 . . . . . .

04-000691 ACIDOL YELLOW M-5RL MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID YELLOW 204 (CO+3 5%)	7440-48-4	0.05 MG/M3
2 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00069 . . . . . .

01-000487 ADDITIVE 42 MSDS Date: 8/92
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?:

Component Information	CAS Number	Threshold
1 BUTYL CARBITOL (25%)	111-77-3	NE

. . . . . End of # 01-00048 . . . . . .

01-000320 ADDITIVE F-97 MSDS Date: 2/90
Sup/Manuf: UNION SPECIALTIES Cat:
Haz/Non-Haz:N Depts: 21 Targ:LUNG, SKIN, INGESTION
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00032 . . . . . .

21-360328 ADDITIVE LA-2229 MSDS Date: 12/92
Sup/Manuf: ROHM & HAAS Cat: FINISHING AGENT
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 DIETHYLENE GLYCOL MONOMETHYL ETHER (38%)	111-77-3	NONE
2 SILICONE RESIN	NON-HAZ	NONE
3 ETHOXYLATED ALCOHOLS		

. . . . . End of # 21-36032 . . . . . .

04-001061 AEROTEX M-3 RESIN MSDS Date: 12/93
Sup/Manuf: CYTEC IND. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (0.5%)	50-00-0	0.75 PPM

. . . . . End of # 04-00106 . . . . . .

04-000090 AFFLAIR PIGMENT 153 FLASH PEARL MSDS Date: 2/92
Sup/Manuf: EM INDUSTRIES Cat: PIGMENT-DUST
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 MICA (MINERAL)	12001-26-2	
2 TITANIUM DIOXIDE	13463-67-7	

. . . . . End of # 04-00009 . . . . . .

04-000617 AFTERTREAT SS-30 MSDS Date: 1/92
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: ACRYLIC
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00061 . . . . . .

04-004040 AGLUTAN PR MSDS Date: 9/93
Sup/Manuf: STRUKTOL CO. Cat:
Haz/Non-Haz:H Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 PROTEASE ENSYME 9073-77-5
. . . . . End of # 04-00404 . . . . . .

19-120509 AGLUTAN SO MSDS Date: 3/89
Sup/Manuf: STRUKTOL CO. Cat: ENZYME
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12050 . . . . . .

04-000040 AIREDALE BLACK 10BR MSDS Date: 6/98
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 DIAZO ACID DYE MIXTURE
. . . . . End of # 04-00004 . . . . . .

04-000464 AIREDALE BLACK F2G POWDER MSDS Date: 3/89
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00046 . . . . . .

04-001206 AIREDALE BLUE RF MSDS Date: 8/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO INFORMATION REPORTED
. . . . . End of # 04-00120 . . . . . .

04-000449 AIREDALE BRILLIANT RED 2B MSDS Date: 5/89
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00044 . . . . . .

04-000606 AIREDALE BROWN 2G MSDS Date: 10/89
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00060 . . . . . .
04-001087 AIREDALE BROWN E.594 MSDS Date: 9/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00108 . . . . . .
04-000450 AIREDALE BROWN ER POWDER MSDS Date: 3/89
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00045 . . . . . .
19-240496 AIREDALE BROWN F3G MSDS Date: 1/92
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24049 . . . . . .
19-240608 AIREDALE BROWN GT 140% MSDS Date: 7/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYSTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24060 . . . . . .
04-001082 AIREDALE FAST BLACK MSDS Date: 8/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00108 . . . . . .

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04-001029  AIREDALE FAST BLUE                          MSDS Date:  7/95
Sup/Manuf: YORKSHIRE NACHEM, INC.                 Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                   Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                       CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00108 . . . . . . . . . . . . . . . . .
04-001080  AIREDALE FAST BORDEAUX                      MSDS Date:  8/95
Sup/Manuf: YORKSHIRE NACHEM, INC.                 Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                   Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA: 1         Experimental ?: Y
   Component Information                       CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00108 . . . . . . . . . . . . . . . . .
04-001030  AIREDALE FAST BROWN                         MSDS Date:  7/95
Sup/Manuf: YORKSHIRE NACHEM, INC.                 Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                   Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                       CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00103 . . . . . . . . . . . . . . . . .
04-001096  AIREDALE FAST ORANGE                        MSDS Date:  7/95
Sup/Manuf: YORKSHIRE NACHEM, INC.                 Cat: DYSTUFF
Haz/Non-Haz:N  Depts:    14                   Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?:
   Component Information                       CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00109 . . . . . . . . . . . . . . . . .
04-001027  AIREDALE FAST RED                           MSDS Date:  7/95
Sup/Manuf: YORKSHIRE NACHEM, INC.                 Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                   Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                       CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00102 . . . . . . . . . . . . . . . . .
19-240601  AIREDALE FAST YELLOW                        MSDS Date:  7/95
Sup/Manuf: YORKSHIRE NACHEM, INC.                 Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14  19               Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: N
   Component Information                       CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 19-24060 . . . . . . . . . . . . . . . . .
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04-000604 AIREDALE FAWN G MSDS Date: 3/89
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00060 . . . . . .
04-000148 AIREDALE GREY BX MSDS Date: 3/89
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00014 . . . . . .
19-240540 AIREDALE NAVY BLUE 5 RXM 150% MSDS Date: 11/91
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24054 . . . . . .
19-240567 AIREDALE ORANGE AGD 125 MSDS Date: 1/92
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24056 . . . . . .
19-240535 AIREDALE RED BROWN BVM MSDS Date: 11/91
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24053 . . . . . .
19-240580 AIREDALE RED N-BA MSDS Date: 6/94
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24058 . . . . . .

04-000045 AIREDALE SCARLET GM MSDS Date: 4/98
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 AZO ACID DYE MIXTURE	N/A	

. . . . . End of # 04-00004 . . . . . .

19-240579 AIREDALE SCARLET N-CS MSDS Date: 1/95
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24057 . . . . . .

04-000417 AIREDALE YELLOW 3GM MSDS Date: 5/89
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00041 . . . . . .

44-000153 ALCONOX MSDS Date: 1/86
Sup/Manuf: ALCONOX, INC. Cat: DETERGENT
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00015 . . . . . .

13-000155 ALKALINE LIQUID SURFACTANT MIXUTRE MSDS Date: 11/90
Sup/Manuf: AQUATEX INC. Cat: STRONG ALKALI
Haz/Non-Haz:H Depts: 13 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE		2 MG/M3

. . . . . End of # 13-00015 . . . . . .

13-000127 ALMASOL HIGH TEMP LUBRICANT #1250 MSDS Date: 12/85
Sup/Manuf: LUBRICATION ENG. Cat: GREASE
Haz/Non-Haz:H Depts: 13 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 2
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 NITROUS ACID, SODIUM NITRATE		NE
2 MINERAL OIL	8012-95-1	5 MG/M3
3 DIACETONE ALCOHOL	123-42-2	50 PPM

. . . . . End of # 13-00012 . . . . . .

04-000612 ALUM (DRY) MSDS Date: 10/85
Sup/Manuf: ALLIED CHEM. Cat:
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ALUM	10043-01-3	

. . . . . End of # 04-00061 . . . . . .

13-000104 ALUMINUM WIRES & RODS(LINDE) MSDS Date: 11/85
Sup/Manuf: MEIER METAL SERV. Cat: METAL
Haz/Non-Haz:H Depts: 13 Targ:
Plant:
Personal Health Code: X Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MIXTURE-SOLID WIRE & RODS		SEE MSDS

. . . . . End of # 13-00010 . . . . . .

13-000158 AMERICAN INDUSTRIAL OIL NO. 100 MSDS Date: 4/89
Sup/Manuf: AMOCO OIL COMPANY Cat: PETROLEUM OIL
Haz/Non-Haz:N Depts: 13 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00015 . . . . . .

13-000170 AMERICAN INDUSTRIAL OIL NO. 68 MSDS Date: 2/96
Sup/Manuf: AMOCO OIL COMPANY Cat: OIL
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00017 . . . . . .

17-120100 AMICAL # 48 MSDS Date: 4/88
Sup/Manuf: ANGUS CHEM. CO. Cat:
Haz/Non-Haz:N Depts: 17 Targ:EYE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 17-12010 . . . . . .

19-120565 AMICAL WP (WETTABLE POWDER) MSDS Date: 7/92
Sup/Manuf: ANGUS CHEM. CO. Cat:
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 DIIODOMETHYL-P-TOLYLSULFONE	20018-09-1	NE

. . . . . End of # 19-12056 . . . . . .

13-000129 AMLASOL CHAIN/CABLE LUBE. #450 LT. MSDS Date: 11/85
Sup/Manuf: LUBRICATION ENG. Cat: GREASE
Haz/Non-Haz:H Depts: 13 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 2
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MINERAL OIL	8012-95-1	5MG/M3
2 NEUTRALIZED HVY NAPTHENIC DISTILLATE		5 MG/M3

. . . . . End of # 13-00012 . . . . . .

19-120284 AMMONIA 29% MSDS Date: 9/94
Sup/Manuf: HAVILAND PRODUCTS Cat: ALKALI
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIA (30%)	7664-41-7	25 MG/M3

. . . . . End of # 19-12028 . . . . . .

19-120282B AMMONIUM BICARBONATE MSDS Date: 6/80
Sup/Manuf: ALLIED CHEM. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIUM BICARBONATE	1066-33-7	NE

. . . . . End of # 19-12028 . . . . . .

19-120282A AMMONIUM BICARBONATE MSDS Date: 10/95
Sup/Manuf: CHURCH & DWIGHT CO. INC. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIUM BICARBONATE	1066-33-7	NE
2 RELEASES AMMONIA (21.5% BY WEIGHT)		

. . . . . End of # 19-12028 . . . . . .

44-000122 AMMONIUM CHLORIDE MSDS Date: 7/85
Sup/Manuf: MALLINCKRODT Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIUM CHLORIDE	12125-02-9	10 MG/M3

. . . . . End of # 44-00012 . . . . . .

17-120102A AMMONIUM SULFATE MSDS Date: 10/92
Sup/Manuf: DSM CHEMICALS NORTH AMERICA, INC. Cat: IRRITANT
Haz/Non-Haz:H Depts: 17 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIUM SULFATE	7783-20-2	NE

. . . . . End of # 17-12010 . . . . . .

17-120102C AMMONIUM SULFATE MSDS Date: 7/95
Sup/Manuf: HYDRITE CHEM. CO. Cat: ALKALI
Haz/Non-Haz:H Depts: 17 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIUM SULFATE	7783-20-2	

. . . . . End of # 17-12010 . . . . . .

04-000850 AMMONIUM SULFATE, LIQUID MSDS Date: 3/92
Sup/Manuf: LOMAC, INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIUM SULFATE (39%)	7783-20-2	NA
2 AMMONIA (8.5%)	7664-41-2	17 MG/M3

. . . . . End of # 04-00085 . . . . . .

13-000171 AMOCO 1000 FLUID MSDS Date: 10/95
Sup/Manuf: AMOCO OIL COMPANY Cat: OIL
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 ZINC CPD. (2%)		

. . . . . End of # 13-00017 . . . . . .

13-000167 AMOCO 300 MOTOR OIL SAE 30 CF/CF-2/SH MSDS Date: 5/95
Sup/Manuf: AMOCO OIL COMPANY Cat:
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00016 . . . . . .

13-000160 AMOCO ATF DEXRON-II E/MERCON MSDS Date: 11/92
Sup/Manuf: AMOCO OIL COMPANY Cat: PETROLEUM OIL
Haz/Non-Haz:N Depts: 13 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00016 . . . . . .

13-000159 AMOCO AW OIL NO. 32 MSDS Date: 11/95
Sup/Manuf: AMOCO OIL COMPANY Cat: PETROLEUM OIL
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00015 . . . . . .

13-000172 AMOCO AW OIL NO. 46 MSDS Date: 5/95
Sup/Manuf: AMOCO OIL COMPANY Cat: PETROLEUM OIL
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00017 . . . . . .

13-000156 AMOCO AW OIL NO. 68 MSDS Date: 5/95
Sup/Manuf: AMOCO OIL COMPANY Cat: OIL
Haz/Non-Haz:N Depts: 13 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PARAFFINIC PETROLEUM OIL	64742-54-7	

. . . . . End of # 13-00015 . . . . . .

13-000164 AMOCO GEAR LUBRICANT SAE 80W-90 MSDS Date: 11/95
Sup/Manuf: AMOCO OIL COMPANY Cat: PETROLEUM OIL
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00016 . . . . . .

13-000165 AMOCO HEAT TRANSFER OIL NO. 4199 MSDS Date: 5/95
Sup/Manuf: AMOCO OIL COMPANY Cat: OIL
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00016 . . . . . .

13-000174 AMOCO MULTI-PURPOSE ATF DEXRON III/MERCON MSDS Date: 10/94
Sup/Manuf: AMOCO OIL COMPANY Cat: PETROLEUM OIL
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00017 . . . . . .

04-000551 AMOLLAN AG MSDS Date: 9/90
Sup/Manuf: BASF Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ALIPHATIC HYDROCARBONS	64742-31-0	NE

. . . . . End of # 04-00055 . . . . . .

01-000662 AMOLLAN NB-IP MSDS Date: 11/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYL ALCOHOL	64-17-5	1000 PPM
2 DIOCTYL SODIUM SULFOSUCCINATE	577-11-7	NE

. . . . . End of # 01-00066 . . . . . .

04-000919 AMOLLAN R MSDS Date: 9/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00091 . . . . . .

13-000161 AMOVIS LUBRICANT NO. 8-X MSDS Date: 3/93
Sup/Manuf: AMOCO OIL COMPANY Cat: LUBRICANT
Haz/Non-Haz:N Depts: 13 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00016 . . . . . .

09-000117 ANTIFOAM 20WB MSDS Date: 7/90
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM HYDROCARBONS		NE

. . . . . End of # 09-00011 . . . . . .

04-001059 ANTISTAT 35 MSDS Date: 6/88
Sup/Manuf: FREEDOM TEXTILE CHEM. CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIETHYLENE GLYCOL	111-46-6	50 PPM

. . . . . End of # 04-00105 . . . . . .

60-120131 ANTISTAT 7493 MSDS Date: 10/97
Sup/Manuf: UNION SPECIALTIES Cat: SOLVENT BASE
Haz/Non-Haz:H Depts: 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 ISOPROPYL ALCOHOL	67-63-0	400 PPM

. . . . . End of # 60-12013 . . . . . .

19-120605 APEX FLAMEPROOF # 1694 MSDS Date: 2/98
Sup/Manuf: APEX CHEM. CORP. Cat:
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12060 . . . . . .

19-120283 APEX FLMPRF EMULSION 160 MSDS Date: 9/89
Sup/Manuf: APEX CHEM. CORP. Cat: IRRITANT
Haz/Non-Haz:N Depts: 19 Targ:SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12028 . . . . . .

04-001057 AQUAFIL DL177 MSDS Date: 2/96
Sup/Manuf: UNION SPECIALTIES Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00105 . . . . . .

04-001036 AR-24 MSDS Date: 10/95
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM DERIVATIVE	TRADE SECRET	5 MG/M3
2 SULFATED GREASE	TRADE SECRET	5 MG/M3
3 CHLORINATED PARAFFIN	63449-39-8	NE

. . . . . End of # 04-00103 . . . . . .

13-000176 ARGON MSDS Date: 4/95
Sup/Manuf: BOC GASES Cat: GAS
Haz/Non-Haz:H Depts: 13 Targ:N/A
Plant:
Personal Health Code: Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: 5 Experimental ?: N

Component Information	CAS Number	Threshold
1 ARGON	740-37-1	N/A

. . . . . End of # 13-00017 . . . . . .

13-000178 ARGOSHIELD GAS MSDS Date: 3/95
Sup/Manuf: BOC GASES Cat: GAS
Haz/Non-Haz:H Depts: 13 Targ:N/A
Plant:
Personal Health Code: Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 5 Experimental ?: N

Component Information	CAS Number	Threshold
1 ARGON	7440-37-1	NE
2 CARBON DIOXIDE	124-38-9	5000 PPM

. . . . . End of # 13-00017 . . . . . .

04-000819 ARTILENE BLACK 9564-9 PASTE MSDS Date: 1/92
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CARBON BLACK	1333-86-4	3.5 MG/M3
1 CARBON BLACK	1333-86-4	3.5 MG/M3

. . . . . End of # 04-00088 . . . . . .

44-000166 ASCORBIC ACID MSDS Date: 10/85
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00016 . . . . . .

21-360460 ASTACIN BOTTOM UH MSDS Date: 12/90
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	100 PPM

. . . . . End of # 21-36046 . . . . . .

01-000290 ASTACIN FINISH PUD MSDS Date: 2/90
Sup/Manuf: BASF Cat: URETHANE
Haz/Non-Haz:N Depts: 21 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00029 . . . . . .

01-000649 ASTACIN FINISH PUM MSDS Date: 8/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00064 . . . . . .

01-000601 ASTACIN GROUND PI MSDS Date: 4/90
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (1%)	107-21-1	50 PPM
2 FORMALDEHYDE (<1%)	50-00-0	1 PPM

. . . . . End of # 01-00060 . . . . . .

01-000687 ASTRAZON BLACK BN LIQUID MSDS Date: 11/91
Sup/Manuf: MILES INC. Cat: LIQ. DYESTUFF/ACID
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I. ACID GREEN 4 (15%)	569-64-2	NE
2 ACETIC ACID	64-19-7	10 PPM

. . . . . End of # 01-00068 . . . . . .

04-000558 ATLAS LEATHER ODOR-S MSDS Date: 11/85
Sup/Manuf: ATLAS REFINERY INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM DISTILLATE	64742-47-8	NE

. . . . . End of # 04-00055 . . . . . .

04-000335 ATLAS MINERAL OIL MSDS Date: 11/87
Sup/Manuf: ATLAS REFINERY INC. Cat: OIL
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM LUBRICATING OIL	64742-53-6	5 MG/M3

. . . . . End of # 04-00033 . . . . . .

09-000116 ATLAS NOFOAM MSDS Date: 2/93
Sup/Manuf: ATLAS REFINERY INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ISOPROPYL ALCOHOL	67-63-0	400 PPM

. . . . . End of # 09-00011 . . . . . .

04-000322 ATLASOL 155 MSDS Date: 11/85
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 3 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM SOLVENT	64742-48-9	NE

. . . . . End of # 04-00032 . . . . . .

17-120131 ATLASOL 176 MSDS Date: 1/96
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 17 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 HYDROCARBON MIXTURE	64742-47-8	

. . . . . End of # 17-12013 . . . . . .

17-120139 ATLASOL 177 C MSDS Date: 1/96
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 ALCOHOL ETHOXYSULFATE, SODIUM SALT	68585-34-2	

. . . . . End of # 17-12013 . . . . . .

04-000847 ATLASOL 181 MSDS Date: 11/85
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 HYDROCARBON MIXTURE	64742-47-8	

. . . . . End of # 04-00084 . . . . . .

60-120127 ATLASOL 23-KP MSDS Date: 4/96
Sup/Manuf: ATLAS REFINERY INC. Cat: NON-HAZ FATLIQUOR
Haz/Non-Haz:N Depts: 17 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 60-12012 . . . . . .

04-000495 ATLASOL A MSDS Date: 4/88
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00049 . . . . . .

04-000901 ATLASOL CAM MSDS Date: 7/95
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00090 . . . . . .

04-000824 ATLASOL KLW MSDS Date: 7/98
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00082 . . . . . .

04-000747 ATLASOL KMM MSDS Date: 3/90
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00074 . . . . . .
19-120484 ATLASOL KTW MSDS Date: 12/86
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12048 . . . . . .
04-000133 ATLASOL WRB MSDS Date: 7/87
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 HYDROCARBON MIXTURE 64742-47-8 NE
. . . . . End of # 04-00013 . . . . . .
19-120543 ATLASTAN LC MSDS Date: 4/87
Sup/Manuf: ATLAS REFINERY INC. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 AMMONIA VAPOR 7664-41-7
. . . . . End of # 19-12054 . . . . . .
19-240583 AURAMINE O MSDS Date: 11/95
Sup/Manuf: AAKASH CHEMICALS Cat: SUSPECT CARCINOGEN
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N
Component Information CAS Number Threshold
1 BASIC YELLOW 2 2465-27-2
. . . . . End of # 19-24058 . . . . . .
04-000077 AVACOR BLACK HTB MSDS Date: 4/98
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 MIXTURE OF AZO-METAL COMPLEX DYES
. . . . . End of # 04-00007 . . . . . .

04-000080 AVACOR BLACK HTS MSDS Date: 2/98
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 MIXTURE OF AXO-METAL COMPLEX DYES
. . . . . End of # 04-00008 . . . . . .
04-001041 AVACOR BLACK MHB MSDS Date: 11/94
Sup/Manuf: AVELLIS & HUSTER GMBH Cat: DYESTUFF
Haz/Non-Haz:H Depts: Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y
Component Information CAS Number Threshold
1 CHROMIUM CPD (CR 3.3%) 7440-47-3
. . . . . End of # 04-00104 . . . . . .
04-001043 AVACOR BLACK SA MSDS Date: 11/94
Sup/Manuf: AVELLIS & HUSTER GMBH Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00104 . . . . . .
04-000076 AVACOR BLACK TCO MSDS Date: 7/98
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 MIXTURE OF AZO-METAL COMPLEX DYES
. . . . . End of # 04-00007 . . . . . .
04-001105 AVACOR BLACK TT MSDS Date: 2/96
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00110 . . . . . .
04-000047 AVACOR BLUE NBG MSDS Date: 1/98
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 AZO DYE MIXTURE N/A
. . . . . End of # 04-00004 . . . . . .

19-240602 AVACOR BROWN BRV MSDS Date: 7/97
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
MIXTURE OF AZO DYES
. . . . . End of # 19-24060 . . . . . .

04-000046 AVACOR YELLOW R 300% MSDS Date: 9/97
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 AZO DYE MIXTURE N/A
. . . . . End of # 04-00004 . . . . . .

04-000075 AVALAN FAST NAVY R CONC MSDS Date: 5/96
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
MIXTURE OF AZA DYES
. . . . . End of # 04-00007 . . . . . .

04-001044 AVALAN FAST RED BROWN AHL MSDS Date: 11/94
Sup/Manuf: AVELLIS & HUSTER GMBH Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y
Component Information CAS Number Threshold
1 COPPER CPD. (CR 3.4%) 7440-50-8
. . . . . End of # 04-00104 . . . . . .

04-001042 AVALAN FAST VIOLET BR MSDS Date: 11/94
Sup/Manuf: AVELLIS & HUSTER GMBH Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y
Component Information CAS Number Threshold
1 CHROMIUM CPD. (CR 4.5%) 7440-47-3
2 COPPER CPD. (CU 0.8%) 7440-50-8
. . . . . End of # 04-00104 . . . . . .

04-000854 AWESOME MSDS Date: 3/91
Sup/Manuf: R.F.THOMPSON Cat: DEGREASER
Haz/Non-Haz:N Depts: 14 Targ:EYE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00085 . . . . . .

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04-000112  AX 112 PIGMENT                                MSDS Date:  7/86
Sup/Manuf: DAY-GLO-COLOR                            Cat: PIGMENT
Haz/Non-Haz:N  Depts:    14                    Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 1
SARA III?:    EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00011 . . . . . . . . . . . . . . . . .
04-000697  AZO RHODINE 2G POWDER 115                     MSDS Date:  6/89
Sup/Manuf: CLARIANT CORP.                           Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                    Targ:LUNG, INGESTION
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: N  EPA:  2        Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  CI ACID RED 1                             3734-67-6    NE
2  POSSIBLE MUTAGENIC EFFECTS
. . . . . . . . . . . . End of # 04-00069 . . . . . . . . . . . . . . . . .
04-000318  BACHROM CF                                    MSDS Date:  2/86
Sup/Manuf: MOBAY CORP.                              Cat: MILD ALKALI
Haz/Non-Haz:H  Depts:    14                    Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 1  Reactivity: 1
SARA III?:    EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  CHROMIUM CPD.                             7440-47-3    0.5 MG/M3
. . . . . . . . . . . . End of # 04-00031 . . . . . . . . . . . . . . . . .
44-000144  BARIUM CHLORIDE                               MSDS Date:  8/85
Sup/Manuf: CHEMPURE/CMS INC.                        Cat:
Haz/Non-Haz:H  Depts:    14                    Targ:EYE, INGESTION
               Plant:
Personal Health Code: B  Indexes-> Health: 2  Fire: 0  Reactivity: 0
SARA III?: N  EPA: 1         Experimental ?: N
   Component Information                     CAS Number   Threshold
1  BARIUM CHLORIDE DIHYDRATE                 10326-27-9   0.5 MG.M3
. . . . . . . . . . . . End of # 44-00014 . . . . . . . . . . . . . . . . .
04-000238  BASCAL S                                      MSDS Date:  9/86
Sup/Manuf: BASF                                     Cat: ACIDIC
Haz/Non-Haz:H  Depts:    14                    Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?:    EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  PROPRIETARY                                            5 MG/M3
2  ADIPIC ACID                               124-04-9     2 MG/M3
. . . . . . . . . . . . End of # 04-00023 . . . . . . . . . . . . . . . . .
04-000531  BASE BLACK N                                  MSDS Date:  8/89
Sup/Manuf: ICI AMERICAS INC.                        Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                    Targ:N/A
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00053 . . . . . . . . . . . . . . . . .
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04-000676 BASE BLACK NC MSDS Date:
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00067 . . . . . .

04-000530 BASE HAVANA J MSDS Date: 8/89
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00053 . . . . . .

04-000074 BASIFICANTE 2MP MSDS Date: 6/97
Sup/Manuf: TANNIN CORPORATION Cat: fine powder
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INFORMATION		

. . . . . End of # 04-00007 . . . . . .

04-000455 BASILEN BORDEAUX E-4B MSDS Date: 8/88
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.REACTIVE VIOLET 3B		NE
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00045 . . . . . .

04-000134 BASILEN ORANGE M-RN MSDS Date: 8/87
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C I REACTIVE ORANGE 4		NE

. . . . . End of # 04-00013 . . . . . .

04-000135 BASILEN RED E-7B MSDS Date: 8/88
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C I REACTIVE RED 204		NE

. . . . . End of # 04-00013 . . . . . .

04-000136 BASILEN SCARLET E-2G MSDS Date: 8/88
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C I REACTIVE RED 43		NE

. . . . . End of # 04-00013 . . . . . .

04-000132 BASILEN YELLOW E-3G MSDS Date: 8/88
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C I REACTIVE YELLOW 136		NE

. . . . . End of # 04-00013 . . . . . .

19-120576 BASTAMOL B MSDS Date: 6/98
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIUM CHLORIDE (NH3 7.6%)	12125-02-9	10 MG/M3

. . . . . End of # 19-12057 . . . . . .

04-001224 BASTAMOL DRM MSDS Date: 7/96
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00122 . . . . . .

04-000410 BASYNTAN DLE MSDS Date: 3/89
Sup/Manuf: BASF Cat: EXTRACT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (0.6%)	50-00-0	1 PPM

. . . . . End of # 04-00041 . . . . . .

19-120385 BASYNTAN GA (POWDER) MSDS Date: 3/90
Sup/Manuf: BASF Cat: NEUTRAL SOLUTION
Haz/Non-Haz:N Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12038 . . . . . .

04-001225 BASYNTAN LD 6170 MSDS Date: 7/96
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	SUCCINIC ACID	110-15-6	NE
2	ADIPIC ACID	124-04-9	5 MG/M3
3	SODIUM SULFATE	7757-85-6	NE
4	COPOLYMER		NE

. . . . . End of # 04-00122 . . . . . .

04-000935 BASYNTAN M MSDS Date: 12/94
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	FORMALDHYDE-NAPHALENESULFONIC ACID	9084-6-4	NE
2	SODIUM SULFATE	7757-82-6	NE

. . . . . End of # 04-00093 . . . . . .

04-001050 BASYNTAN MLB LIQUID MSDS Date: 7/96
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	COPOLYMER	PROPRIETARY	NE
2	BUTANEDIOIC ACID	110-15-6	NE
3	ADIPIC ACID	124-04-9	5 MG/M3
4	SODIUM SULFATE	7757-82-6	NE

. . . . . End of # 04-00105 . . . . . .

04-000778 BASYNTAN N LIQUID MSDS Date: 12/94
Sup/Manuf: BASF Cat: SOLVENT/MILD ACIDI
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	ACETIC ACID	64-19-7	10 PPM
2	FORMAIC ACID (1%)	64-18-6	
3	PHENOL (4%)	108-95-2	5 PPM
4	AMMONIUM SULFATE (1%)1	7783-20-5	
5	FORMALDEHYDE-PHENOLSULFONIC ACID-()UREA	9041-04-7	
6	FORMALDEHYDE-PHENOLSULFONIC ACID-()UREA	53817-89-3	

. . . . . End of # 04-00077 . . . . . .

19-120286 BASYNTAN NB-AN LIQUID MSDS Date: 3/90
Sup/Manuf: BASF Cat: MILD ACID
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12028 . . . . . .

04-000909 BASYNTAN WL POWDER MSDS Date: 5/91
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ADIPIC ACID	124-04-9	NE

. . . . . End of # 04-00090 . . . . . .

19-120577 BAVANOL SE-3 (HYDROFOIL SE-3) MSDS Date: 10/95
Sup/Manuf: HODGSON CHEM. Cat: TOPPING OIL
Haz/Non-Haz:N Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INFORMATION		

. . . . . End of # 19-12057 . . . . . .

21-360490 BAVON 9054 (AVERSIN 9054) MSDS Date: 7/97
Sup/Manuf: HODGSON CHEM. Cat: WATERPROOF CHEM.
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 PETROLEUM DERIVATIVE	TRADE SECRET	5 MG/M3
2 TRIMETHYLATED SILICA	68988-56-7	NE

. . . . . End of # 21-36049 . . . . . .

19-120610 BAYCHROM 2420 MSDS Date: 10/90
Sup/Manuf: BAYER CORP. Cat: IRRITANT
Haz/Non-Haz:H Depts: Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPDS (45%)		

. . . . . End of # 19-12061 . . . . . .

17-120136 BAYCHROM CW MSDS Date: 11/91
Sup/Manuf: BAYER CORP. Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 17 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM +3 (40%)	7440-47-3	0.5MG/M3
2 SODIUM SULFATE	7767-82-6	NE
3 MAGNESIUM OXIDE	1309-48-4	10MG/M3

. . . . . End of # 17-12013 . . . . . .

07-000135 BAYCHROM HR MSDS Date: 4/97
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:N Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 07-00013 . . . . . .

17-120151 BAYCHROM MR MSDS Date: 1/98
Sup/Manuf: BAYER CORP. Cat: POWDER
Haz/Non-Haz:N Depts: 17 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 17-12015 . . . . . .

19-120455 BAYCHROME CL MSDS Date: 11/91
Sup/Manuf: BAYER CORP. Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM COMPOUND (40%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-12045 . . . . . .

19-120456 BAYCHROME RC MSDS Date: 2/92
Sup/Manuf: BAYER CORP. Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM COMPOUNDS (7.5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-12045 . . . . . .

04-000086 BAYCOLOR BLACK BN LIQ. MSDS Date: 8/95
Sup/Manuf: BAYER CORP. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 ACETIC ACID	64-19-7	10 PPM
2 C.I.BASIC GREEN 4 (15%)	569-64-2	NE

. . . . . End of # 04-00008 . . . . . .

01-000536 BAYDERM ADDITIVE CA MSDS Date: 4/92
Sup/Manuf: MOBAY CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 2 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CYCLOHEXANONE	108-94-1	25 PPM
2 DIACETONE ALCOHOL	123-42-2	50 PPM

. . . . . End of # 01-00053 . . . . . .

01-000535 BAYDERM ADDITIVE VA MSDS Date: 1/90
Sup/Manuf: BAYER CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: N EPA: 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 PPM
2 ISOBUTYL ALCOHOL	78-83-1	50 PPM

. . . . . End of # 01-00053 . . . . . .

01-000529 BAYDERM BOTTOM 10 UD MSDS Date: 7/91
Sup/Manuf: BAYER CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (2%)	107-21-1	50 PPM

. . . . . End of # 01-00052 . . . . . .

21-360484 BAYDERM BOTTOM 42 UD MSDS Date: 2/91
Sup/Manuf: BAYER CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TOLUENE (1.1%)	108-88-3	100 PPM

. . . . . End of # 21-36048 . . . . . .

01-000525 BAYDERM BOTTOM 50 UD MSDS Date: 7/91
Sup/Manuf: BAYER CORP. Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (2%)	107-21-1	50 PPM

. . . . . End of # 01-00052 . . . . . .

21-360483 BAYDERM BOTTOM 62 UD MSDS Date: 8/90
Sup/Manuf: BAYER CORP. Cat: POLYURETHANE
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE
2 TRIETHYLAMINE	121-44-8	10 PPM

. . . . . End of # 21-36048 . . . . . .

21-360455 BAYDERM BOTTOM SMX MSDS Date: 10/92
Sup/Manuf: BAYER CORP. Cat: PU DISPERSION
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (0.7%)	50-00-0	0.5 PPM
2 ETHYLENE GLYCOL (2.5%)	107-21-1	50 PPM

. . . . . End of # 21-36045 . . . . . .

01-000524 BAYDERM DULLER PC MSDS Date: 2/91
Sup/Manuf: BAYER CORP. Cat: NEUTRAL SOLUTION
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SILICA GEL	63231-67-4	6 MG/M3
2 CAPROLACTAM	105-60-2	5 PPM

. . . . . End of # 01-00052 . . . . . .

01-000474 BAYDERM FINISH 82 UD MSDS Date: 1/92
Sup/Manuf: BAYER CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TOLUENE (1.1%)	108-88-3	100 PPM

. . . . . End of # 01-00047 . . . . . .

01-000511 BAYDERM FINISH 85 UD MSDS Date: 10/90
Sup/Manuf: BAYER CORP. Cat: NEUTRAL SOLUTION
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00051 . . . . . .

01-000522 BAYDERM FINISH 98 UD MSDS Date: 8/90
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE
2 TRIETHYLAMINE	121-44-8	10 PPM

. . . . . End of # 01-00052 . . . . . .

01-000460 BAYDERM FIX CXA MSDS Date: 10/90
Sup/Manuf: BAYER CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: 1 2 3 Experimental ?: Y

Component Information	CAS Number	Threshold
1 POLYISOCYANATE BASED ON HDI		NE
2 HEXAMETHYLENE DIISOCYANATE (HDI)	822-06-0	.005 PPM

. . . . . End of # 01-00046 . . . . . .

01-000486 BAYDERM FIX UCL MSDS Date: 6/91
Sup/Manuf: BAYER CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: Y EPA: 1 2 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 XYLENE (5%)	1330-20-7	100 PPM
2 MULTIFUNCTIONAL CARBODIIMIDE		NE
3 PROPYLENE GLYCOL MONOMETHYL ETHER ACETAT	108-65-6	NE

. . . . . End of # 01-00048 . . . . . .

01-000663 BAYDERM MATTING AGENT AS 33131 MSDS Date: 8/93
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDINONE	872-50-4	NE
2 AMORPHOUS SILICA	7631-86-9	6 MG/M3

. . . . . End of # 01-00066 . . . . . .

01-000672 BAYDERM PREBOTTOM CA 33108 MSDS Date: 10/92
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00067 . . . . . .

01-000512 BAYDERM PREBOTTOM HL MSDS Date: 11/90
Sup/Manuf: BAYER CORP. Cat: MILD ACIDIC
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00051 . . . . . .

01-000537 BAYGARD AFE MSDS Date: 4/92
Sup/Manuf: MILES INC. Cat: SOLVENT/MILD ACID
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 3 Reactivity: 1
SARA III?: Y EPA: 1 2 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACETONE (5%)	67-64-1	750 PPM
2 ETHYLENE GLYCOL (5%)	107-21-1	50 PPM

. . . . . End of # 01-00053 . . . . . .

01-000881 BAYGARD AFL MSDS Date: 1/95
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIPROPYLENEGLYCOL MONOMETHYL ETHER	20324-32-7	NE

. . . . . End of # 01-00088 . . . . . .

01-000670 BAYGARD CA 40164 MSDS Date: 6/93
Sup/Manuf: MILES INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHANOL	64-17-5	1000 PPM

. . . . . End of # 01-00067 . . . . . .

04-000147 BAYGENAL BLACK DBL MSDS Date: 12/88
Sup/Manuf: MOBAY CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00014 . . . . . .

19-240110 BAYGENAL BROWN CGG MSDS Date: 12/96
Sup/Manuf: BAYER CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24011 . . . . . .

19-240458 BAYGENAL BROWN N MSDS Date: 2/97
Sup/Manuf: BAYER CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24045 . . . . . .

19-240114 BAYGENAL DK BROWN CGV MSDS Date: 9/93
Sup/Manuf: MILES INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 DIBUTYL PHTHALATE (4%)	84-74-2	5 MG/M3
2 SODIUM CHLORIDE	7647-14-5	NE

. . . . . End of # 19-24011 . . . . . .

04-001222 BAYGENAL GREY L-NG MSDS Date: 9/93
Sup/Manuf: BAYER CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIBUTYL PHTHALATE (5)	84-74-2	5 MG/M3
2 SODIUM CHLORIDE	7647-14-5	NE
3 CHROMIUM CPD. (55%) (CR 2%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00122 . . . . . .

04-001223 BAYGENAL GREY N2B MSDS Date: 9/93
Sup/Manuf: BAYER CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIBUTYL PHTHALATE (3%)	84-74-2	
2 CHROMIUM CPD. (25%) (CR 6%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00122 . . . . . .

04-000144 BAYKANOL OS MSDS Date: 10/88
Sup/Manuf: MOBAY CORP. Cat: TANNING AGENT
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00014 . . . . . .

04-000646 BAYKANOL DRIVER P MSDS Date: 11/90
Sup/Manuf: MOBAY CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00064 . . . . . .

04-000514 BAYKANOL LTN LIQUID MSDS Date: 2/89
Sup/Manuf: MOBAY CORP. Cat: MILD ACID
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 METHANOL (2%)	67-56-1	260 MG/M3
2 FORMALDEHYDE (0.1%)	50-00-0	1 PPM

. . . . . End of # 04-00051 . . . . . .

04-000346 BAYTIGAN AR MSDS Date: 2/89
Sup/Manuf: MOBAY CORP. Cat: SYNTAN
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00034 . . . . . .

04-000806 BAYWAX ALL-G MSDS Date: 11/85
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00080 . . . . . .

04-000599 BERAID 739 MSDS Date: 7/89
Sup/Manuf: BEROL NOBEL STENUNGSUND AB Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 QUARTERNARY FATTY AMINE		NE
2 SURFACTANTS		NE

. . . . . End of # 04-00059 . . . . . .

19-240390 BERNACID RED EN 100% MSDS Date: 10/85
Sup/Manuf: BERNSCOLORS-POUGHKEEPSIE Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24039 . . . . . .

01-000227 BI-01 MSDS Date: 9/91
Sup/Manuf: STAHL FINISH Cat: ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	NE
2 AMMONIUM HYDROXIDE	1336-21-6	25 PPM

. . . . . End of # 01-00022 . . . . . .

04-000615 BINDER 2617-A MSDS Date: 11/86
Sup/Manuf: PILAR INC. Cat: ALKALI
Haz/Non-Haz:N Depts: 14 Targ:LUNG, INGESTION
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00061 . . . . . .

01-000211 BINDER C-9 MSDS Date: 5/89
Sup/Manuf: ROHM & HAAS Cat: ALKALI
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIA (2 %)	7664-41-7	25 PPM

. . . . . End of # 01-00021 . . . . . .

01-000162 BINDER LA-2272 MSDS Date: 12/90
Sup/Manuf: ROHM & HAAS Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, SKIN
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACRYLIC COPOLYMER	NON-HAZ	NONE
2 POLYURETHANE RESIN	NON-HAZ	0.1 MG.M3
3 WATER	7732-18-5	NONE
4 N-METHYL PYRROLIDONE	872-50-4	25 PPM
5 TRIETHYLAMINE	121-44-8	3 PPM

. . . . . End of # 01-00016 . . . . . .

21-360411 BINDER LS-3479 MSDS Date: 9/92
Sup/Manuf: ROHM & HAAS Cat: SENSITIZER/IRRITAN
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: G Indexes-> Health: 3 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 2 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 POLYMERIC ISOCYANATE	TRADE SECRET	NE
2 ETHYL 3-ETHOXYPROPIONATE	763-69-9	NE
3 RESIDUAL ISOCYANATE MONOMER	TRADE SECRET	0.005 PPM

. . . . . End of # 21-36041 . . . . . .

01-000315 BINDER LS-3486 MSDS Date: 7/92
Sup/Manuf: ROHM & HAAS Cat: **SENSITIZER**
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 2 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYL 3-ETHOXYPROPIONATE	763-69-9	50 PPM
2 RESIDUAL ISOCYANATE MONOMER	SECRET	0.005 PPM

01-000315 BINDER LS-3486 MSDS Date: 7/92
Sup/Manuf: ROHM & HAAS Cat: **SENSITIZER**
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 2 4 Experimental ?: Y

Component Information	CAS Number	Threshold
3 POLYMERIC ISOCYANATE	N/A	NE

. . . . . End of # 01-00031 . . . . . .

21-360204 BINDER R 27 MSDS Date: 1/88
Sup/Manuf: ROHM & HAAS Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TRIETHYLAMINE	121-44-8	10 PPM
2 N-METHYL PYRROLIDONE	872-50-4	50 PPM

. . . . . End of # 21-36020 . . . . . .

01-000520 BINDER SR MSDS Date: 4/90
Sup/Manuf: BASF Cat: ALKALI
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00052 . . . . . .

01-000424 BINDER U-42 MSDS Date: 12/90
Sup/Manuf: ROHM & HAAS Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 POLYURETHANE RESIN	NON HAZ	NONE
2 WATER	7732-18-5	NONE
3 TOLUENE (1-2%)	108-88-3	50 PPM

. . . . . End of # 01-00042 . . . . . .

04-000358 BISOFT #670-C-5 MSDS Date: 8/87
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00035 . . . . . .

04-000853 BL-2094 MSDS Date: 3/92
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat:
Haz/Non-Haz:H Depts: Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?:

Component Information	CAS Number	Threshold
TRADE SECRET		

. . . . . End of # 04-00085 . . . . . .

44-000121 BOD NUTRIENT BUFFER PILLOWS MSDS Date: 3/97
Sup/Manuf: HACH CO. Cat: NEUTRAL SOLUTION
Haz/Non-Haz:H Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	POTASSIUM PHOSPHATE	7758-11-4	NE
2	SODIUM PHOSPHATE, DIBASIC ANHYDROUS	7558-79-4	NE
3	MAGNESIUM SULFATE HEPTAHYDRATE	10034-99-8	NE
4	CALCIUM CHLORIDE DIHYDRATE	10035-04-8	NE
5	POTASSIUM PHOSPHATE, MONOBASIC	7778-77-0	NE
6	AMMONIUM CHLORIDE	12125-02-9	10 MG/M3
7	FERRIC CHLORIDE	7705-08-0	1 MG/M3
8	WATER	7732-18-5	N/A

. . . . . End of # 44-00012 . . . . . .

44-000150 BODY FLUSH MSDS Date: 11/89
Sup/Manuf: NORTH HEALTH CARE Cat: NEUTRALIZER
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: A Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00015 . . . . . .

19-120561 BORAX (5 MOL) MSDS Date: 5/93
Sup/Manuf: US BORAX Cat: ALKALI
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

	Component Information	CAS Number	Threshold
1	SODIUM TETRABORATE PENTAHYDRATE	1330-43-4	10 MG/M3

. . . . . End of # 19-12056 . . . . . .

19-120416 BORIC ACID GRANULES MSDS Date: 3/96
Sup/Manuf: US BORAX Cat:
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	BORIC ACID	10043-35-3	

. . . . . End of # 19-12041 . . . . . .

04-000048 BORRON SAF-G MSDS Date: 1/98
Sup/Manuf: TFL Cat: SURFACTANT
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	SURFACTANT	N/A	

. . . . . End of # 04-00004 . . . . . .

60-120122 BORRON SE-G (TETRAPOL SE-G) MSDS Date: 2/96
Sup/Manuf: TFL Cat: SURFACTANT
Haz/Non-Haz:N Depts: 14 17 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 60-12012 . . . . . .

04-000929 BORRON TF OR 9232 MSDS Date: 5/95
Sup/Manuf: TFL Cat: SOLVENT MIX-DEGREA
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 POLYOXYETHYLENE ALKYL ETHER	61827-42-7	NE
2 GLYCOL ETHER (3.5%)		
3 ISOPROPYL ALCOHOL	67-63-0	

. . . . . End of # 04-00092 . . . . . .

17-120155 BORRON TS MSDS Date: 5/98
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 17 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL MONOBUTYL ETHER (5%)	111-76-2	25 PPM
2 SURFACTANT BLEND	NE	NE

. . . . . End of # 17-12015 . . . . . .

04-000758 BRILLIANT GREEN B CRYSTALS MSDS Date: 2/92
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00075 . . . . . .

04-000072 BUBOND 5031 MSDS Date: 1/99
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRADE SECRET		

. . . . . End of # 04-00007 . . . . . .

12-000117 BUFFER SOLUTION, PH 10 MSDS Date: 5/96
Sup/Manuf: FISHER SCIENTIFIC Cat: BUFFER
Haz/Non-Haz:N Depts: 12 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 12-00011 . . . . . .

04-001078 BUFFER SOLUTION, PH 4 MSDS Date: 3/96
Sup/Manuf: FISHER SCIENTIFIC Cat:
Haz/Non-Haz:N Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
MIXTURE OF INGREDIENTS		

. . . . . End of # 04-00107 . . . . . .

01-000696 BURNISHING SPRAY #33880 MSDS Date: 7/93
Sup/Manuf: PRIME LEATHER FINISHES Cat:
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	VOCS 1.09 LBS/GAL		
2	2-AMINO-2-METHYL-1-PROPANOL	124-68-5	NE

. . . . . End of # 01-00069 . . . . . .

04-000916 BUSAN 110 MSDS Date: 6/88
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 2 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	METHYLENE BIS(THIOCYANATE)	6317-18-6	NE

. . . . . End of # 04-00091 . . . . . .

07-000103 BUSAN 110 WB MSDS Date: 10/86
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: MILD ACID
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: C Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	METHYLENE BIS(THIODYNATE)	6317-18-6	NE
2	ETHYLENE GLYCOL	107-21-1	5 PPM

. . . . . End of # 07-00010 . . . . . .

19-120517 BUSAN 30 WB MSDS Date: 12/92
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: SOLVENT/TOXIC
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: C Indexes-> Health: 3 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

	Component Information	CAS Number	Threshold
1	ETHYLENE GLYCOL (5%)	107-21-1	50 PPM
2	2-(THIOCYANOMETHYLTHIO)BENZOTHIAZOLE	21564-17-0	NE

. . . . . End of # 19-12051 . . . . . .

17-120103 BUSAN 30L MSDS Date: 4/98
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: MILD ACIDIC
Haz/Non-Haz:H Depts: 17 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: D Indexes-> Health: 3 Fire: 2 Reactivity: 1
SARA III?: Y EPA: 1 4 Experimental ?: N

	Component Information	CAS Number	Threshold
1	2-(THIOCYANOMETHYLTHIO)BENZOTHIAZOLE	21564-17-0	NE
2	DIETHYLENE GLYCOL MONOMETHYL ETHER (25%)	111-77-3	NE
3	ANIONIC SURFACTANTS		
4	NAPHTHALENE	91-20-2	10 PPM
5	AROMATIC SOLVENTS		

. . . . . End of # 17-12010 . . . . . .

20-120100 BUSAN 52 MSDS Date: 6/97
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: ACIDIC
Haz/Non-Haz:H Depts: 19 Targ:EYE, SKIN
Plant:
Personal Health Code: C Indexes-> Health: 3 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

	Component Information	CAS Number	Threshold
1	SODIUM 2-MERCAPTOBENZOTHIAZOLE POTASSIUM	2492-26-4	NE
2	N-HYDROXYMETHYL-N-METHYLDITHIOCARBAMATE	51026-28-9	NE

20-120100 BUSAN 52 MSDS Date: 6/97
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: ACIDIC
Haz/Non-Haz:H Depts: 19 Targ:EYE, SKIN
Plant:
Personal Health Code: C Indexes-> Health: 3 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
. . . . . End of # 20-12010 . . . . . .
17-120150 BUSPERSE 2180 MSDS Date: 5/97
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat:
Haz/Non-Haz:H Depts: 17 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 4 Experimental ?: N
Component Information CAS Number Threshold
1 PROPRIETARY INFORMATION
. . . . . End of # 17-12015 . . . . . .
01-000691 BUSPERSE 228 MSDS Date: 5/91
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 2
SARA III?: Y EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
1 GLYCOL ETHERS (20%) NE
. . . . . End of # 01-00069 . . . . . .
07-000116 BUSPERSE 232 MSDS Date: 3/93
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 AROMATIC HYDROCARBON SOLVENT 100 PPM
. . . . . End of # 07-00011 . . . . . .
04-000915 BUSPERSE 47 MSDS Date: 3/93
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat:
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00091 . . . . . .
21-360287A BUTYL CELLUSOLVE (GLYCOL ETHER EB) MSDS Date: 2/94
Sup/Manuf: HAVILAND PRODUCTS Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: N
Component Information CAS Number Threshold
1 ETHYLENE GLYCOL MONOBUTYL ETHER (100%) 111-76-2 100 PPM
. . . . . End of # 21-36028 . . . . . .
17-120129 CANOPUS OIL 13 MSDS Date: 4/97
Sup/Manuf: TEXACO Cat: OIL
Haz/Non-Haz:H Depts: 17 Targ:SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 HYDROTREATED WAX PETROLEUM DISTILLATE 64742-55-8 5 MG/M3

17-120129 CANOPUS OIL 13 MSDS Date: 4/97
Sup/Manuf: TEXACO Cat: OIL
Haz/Non-Haz:H Depts: 17 Targ:SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
. . . . . End of # 17-12012 . . . . . .
04-000002 CARBACET KFM MSDS Date: 4/94
Sup/Manuf: BOHME, DR. TH. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00000 . . . . . .
13-000106 CARBON MONOXIDE MSDS Date: 10/84
Sup/Manuf: ABILITY TO GENERATE GAS Cat: POISONOUS GAS
Haz/Non-Haz:H Depts: 13 Targ:
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 3 Reactivity: 0
SARA III?: EPA: Experimental ?: N
Component Information CAS Number Threshold
1 CARBON MONOXIDE 630-08-0 35 PPM
. . . . . End of # 13-00010 . . . . . .
44-000154 CARBONA SHAMPOO MSDS Date: 2/87
Sup/Manuf: CARBONA PRODUCTS Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 SODIUM LAURYL SULFATE 151-21-3
2 DIMETHYLENE OXIDE 75-21-8
3 ETHYLENE GLYCOL MONOBUTYL ETHER (2.8%) 111-76-2
. . . . . End of # 44-00015 . . . . . .
04-000582 CARTA BORDEAUX 7B POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00058 . . . . . .
04-000554 CARTA RED 10BL LIQUID MSDS Date: 11/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
1 PROPRIETARY NE
. . . . . End of # 04-00055 . . . . . .

04-000753 CARTA TURQUOISE GL POWDER 150 MSDS Date: 4/91
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER CPD (88%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00075 . . . . . .

04-000553 CARTA VIOLET 3B LIQUID MSDS Date: 4/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN, INGESTION
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRIETHANOLAMINE	102-71-6	NE
2 DIETHYLENE GLYCOL MONOETHYL ETHER (29%)	111-90-0	NE

. . . . . End of # 04-00055 . . . . . .

04-000822 CARTARETIN F-4 LIQUID MSDS Date: 10/90
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00082 . . . . . .

04-001084 CATALIX HCA PASTE MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: IRRITANT
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACETIC ACID	64-19-7	

. . . . . End of # 04-00108 . . . . . .

17-120124G CAUSTIC SODA LIQ 50% MSDS Date: 1/89
Sup/Manuf: HAVILAND PRODUCTS Cat: STRONG ALKALI
Haz/Non-Haz:H Depts: 17 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 3 Fire: 0 Reactivity: 2
SARA III?: Y EPA: 1 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M3

. . . . . End of # 17-12012 . . . . . .

17-120124 CAUSTIC SODA LIQ. 50% MSDS Date: 1/98
Sup/Manuf: OCCIDENTAL CHEM. CORP. Cat: STRONG ALKALI
Haz/Non-Haz:H Depts: 14 17 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 3 Fire: 0 Reactivity: 2
SARA III?: N EPA: 1 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2MG/M3

. . . . . End of # 17-12012 . . . . . .

04-000821 CERANINE HCS CONC PASTE MSDS Date: 3/91
Sup/Manuf: CLARIANT CORP. Cat: MILD ACID
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACETIC ACID	64-19-7	10 PPM

. . . . . End of # 04-00082 . . . . . .

04-000718 CERES BLUE RR MSDS Date: 7/91
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00071 . . . . . .

19-240466 CHEM.ACID FAST YELLOW G MSDS Date: 6/88
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24046 . . . . . .

04-000680 CHEMOL 166N MSDS Date: 3/89
Sup/Manuf: CHEMTAN CO. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 INGREDIENT I & II	TRADE SECRET	NE
2 HYDROTREATED MID. PET. DISTILLATE	64742-46-7	200 PPM
3 ETHANOLAMINE	141-43-5	3 PPM

. . . . . End of # 04-00068 . . . . . .

04-000477 CHEMOL 175 MSDS Date: 6/87
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00047 . . . . . .

04-000475 CHEMOL 21 MSDS Date: 4/86
Sup/Manuf: CHEMTAN CO. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00047 . . . . . .

04-000826 CHEMOL 263 MSDS Date: 9/89
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00082 . . . . . .

04-001108 CHEMOL 323 MSDS Date: 5/95
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:EYE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00110 . . . . . .

04-001051 CHEMOL 348 MSDS Date: 6/96
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRIETHANOLAMINE		

. . . . . End of # 04-00105 . . . . . .

04-000108 CHEMTAN 1345-1 MSDS Date: 4/86
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00010 . . . . . .

04-000776 CHEMTAN ACID BLACK BR 125% MSDS Date: 2/90
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (60%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00077 . . . . . .

04-000864 CHEMTAN ACID BLACK M-R MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (74%)	7440-47-3	0.5 MG/M3
2 CHROMIUM ACETATE	628-52-4	0.5 MG/M3
3 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00086 . . . . . .

19-240570 CHEMTAN ACID BLACK RPL 150% MSDS Date: 9/98
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (58%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24057 . . . . . .

04-001116 CHEMTAN ACID BLACK RPL LIQUID MSDS Date: 3/89
Sup/Manuf: CHEMTAN CO. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (20%) (CR 1%)	7440-47-3	0.5 MG/M3
2 BUTYL CARBITOL (4%)	112-34-5	NE

. . . . . End of # 04-00111 . . . . . .

04-000865 CHEMTAN ACID BLACK S-2B MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (44%)	7440-47-3	0.5 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00086 . . . . . .

04-000923 CHEMTAN ACID BLACK WA MSDS Date: 9/91
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM + CHROMIUM CPD (3% + 60%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00092 . . . . . .

04-000703 CHEMTAN ACID BORDEAUX 3 RS CONC MSDS Date: 4/91
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPDS (71%)	7440-48-4	0.05 MG/M3
2 LITHIUM HYDROXIDE	1310-66-3	NE
3 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00070 . . . . . .

04-000866 CHEMTAN ACID BORDEAUX MB MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (89%)	7440-47-3	0.5 MG/M3
? MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00086 . . . . . .

04-000867 CHEMTAN ACID BORDEAUX S-BD MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (73%)	7440-47-3	0.5 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00086 . . . . . .

04-000894 CHEMTAN ACID BRILLIANT CYANINE G MSDS Date: 4/93
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00089 . . . . . .

19-240139 CHEMTAN ACID BRILLIANT MILLING BLUE BA MSDS Date: 4/86
Sup/Manuf: CHEMTAN CO. Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24013 . . . . . .

04-000922 CHEMTAN ACID BROWN HH 150% MSDS Date: 10/91
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00092 . . . . . .

19-240584 CHEMTAN ACID BROWN MF MSDS Date: 3/89
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 COPPER CPD (CU 1%)	7440-50-8	

. . . . . End of # 19-24058 . . . . . .

04-001119 CHEMTAN ACID BROWN NOA MSDS Date: 11/95
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 BLENDED MINERAL OIL	TRADE SECRET	

. . . . . End of # 04-00111 . . . . . .

04-000868 CHEMTAN ACID BROWN S-2R MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (73%)	7440-47-3	0.5 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00086 . . . . . .

04-000921 CHEMTAN ACID CHROME ORANGE G MSDS Date: 2/86
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (3%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00092 . . . . . .

04-000920 CHEMTAN ACID DARK BROWN CR MSDS Date: 6/95
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00092 . . . . . .

19-240486 CHEMTAN ACID DARK BROWN G 150 MSDS Date: 2/90
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24048 . . . . . .

04-001118 CHEMTAN ACID DARK BROWN PRL MSDS Date: 7/94
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NONE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD. 40% (CR 10%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00111 . . . . . .

04-000879 CHEMTAN ACID FAST BLACK B 100% MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACID BLACK 63 (CHROME CPD 20%)	7440-47-3	0.5 MG/M3
2 CHROMIUM	7440-47-3	0.5 MG/M3
3 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00087 . . . . . .

19-240459 CHEMTAN ACID FAST GREEN 2G 400% MSDS Date: 2/86
Sup/Manuf: CHEMTAN CO. Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24045 . . . . . .

04-000880 CHEMTAN ACID FAST RED RB MSDS Date: 6/93
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPRIETARY DYE (CHROME CPD 40%)	7440-47-3	0.5 MG/M3
2 CHROMIUM (4%)	7440-47-3	0.5 MG/M3
3 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00088 . . . . . .

19-240582 CHEMTAN ACID GREEN B MSDS Date: 10/95
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24058 . . . . . .

19-240544 CHEMTAN ACID GREY G MSDS Date: 4/96
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: J Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD. 80% (Cr+ 7%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24054 . . . . . .

04-000870 CHEMTAN ACID GREY S-BG MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (73%)	7440-47-3	0.5 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00087 . . . . . .

19-240142 CHEMTAN ACID LEATHER YELLOW BROWN G MSDS Date: 5/98
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 IRON SALTS		1 MG/M3

. . . . . End of # 19-24014 . . . . . .

04-000869 CHEMTAN ACID NAVY S-B MSDS Date: 9/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (22%)	7440-47-3	0.5 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00086 . . . . . .

19-240440 CHEMTAN ACID ORANGE RO EX CONC. MSDS Date: 4/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 DIOCTYL SODIUM SULFOSUCCINATE	577-11-7	NE

. . . . . End of # 19-24044 . . . . . .

04-000871 CHEMTAN ACID ORANGE S-R MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (44%)	7440-47-3	0.5 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00087 . . . . . .

19-240470 CHEMTAN ACID PINK BNA-300% MSDS Date: 9/86
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CR+3 DYE COMPLEX (% NOT ON MSDS)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24047 . . . . . .

04-000702 CHEMTAN ACID RED GL 200% MSDS Date:
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00070 . . . . . .

04-000872 CHEMTAN ACID RED S-G MSDS Date: 8/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (49%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00087 . . . . . .

04-000109 CHEMTAN ACID RESOURCINE BROWN B MSDS Date: 2/87
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00010 . . . . . .

04-000105 CHEMTAN ACID RHODAMINE WT LIQUID MSDS Date: 3/87
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00010 . . . . . .

19-240594 CHEMTAN ACID RUBINE MSDS Date: 12/96
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24059 . . . . . .

19-240143 CHEMTAN ACID VIOLET 2R 100% MSDS Date: 9/86
Sup/Manuf: CHEMTAN CO. Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?:
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24014 . . . . . .

19-240461 CHEMTAN ACID VIOLET 4B CONC. MSDS Date: 7/91
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24046 . . . . . .

04-000483 CHEMTAN ACID WOOL BLUE R MSDS Date: 1/86
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00048 . . . . . .

19-240548 CHEMTAN ACID YELLOW 3RL MSDS Date: 11/95
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 COBALT CPD (35%)	7440-48-4	0.05 MG/M3

. . . . . End of # 19-24054 . . . . . .

19-240568 CHEMTAN ACID YELLOW NW 250% MSDS Date: 8/96
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 COBALT CPD (64%; Co 6%)	7440-48-4	0.05 MG/M3
2 ETHYLENEDIAMINETETRA ACETIC ACID	64-02-8	

. . . . . End of # 19-24056 . . . . . .

04-000873 CHEMTAN ACID YELLOW S-5R 167% MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPD (33%)	7440-48-4	0.05 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00087 . . . . . .

04-000874 CHEMTAN ACID YELLOW S-GR 200% MSDS Date: 5/92
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD (76%)	7440-47-3	0.5 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00087 . . . . . .

07-000003 CHEMTAN B-1 MSDS Date: 11/97
Sup/Manuf: CHEMTAN CO. Cat: ENZYME
Haz/Non-Haz:H Depts: 17 Targ:NONE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRIACYL GLYCEROL LIPASE	9001-62-1	NE

. . . . . End of # 07-00000 . . . . . .

07-000002 CHEMTAN B-2 MSDS Date: 11/97
Sup/Manuf: CHEMTAN CO. Cat: ENZYME
Haz/Non-Haz:H Depts: 17 Targ:NONE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROTEASE	9001-92-7	NE

. . . . . End of # 07-00000 . . . . . .

19-240135 CHEMTAN BASIC RHODAMINE 6 GDN MSDS Date: 9/87
Sup/Manuf: CHEMTAN CO. Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?:
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24013 . . . . . .
19-240144 CHEMTAN BASIC RHODAMINE B EXTRA MSDS Date: 8/96
Sup/Manuf: CHEMTAN CO. Cat: ANIMAL CARCINOGEN
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: 1 2 Experimental ?: N
Component Information CAS Number Threshold
1 BASIC VIOLET 10 81-88-9
. . . . . End of # 19-24014 . . . . . .
04-000730 CHEMTAN BASIC YELLOW SFA LIQ MSDS Date: 6/89
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 ACETIC ACID 64-19-7 10 PPM
2 FORMIC ACID 64-18-6 5 PPM
. . . . . End of # 04-00073 . . . . . .
04-001114 CHEMTAN CHESTNUT EXTRACT MSDS Date: 10/93
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00111 . . . . . .
04-000796 CHEMTAN DIRECT BLACK GB-NB MSDS Date: 8/88
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00079 . . . . . .
04-001115 CHEMTAN DIRECT BLACK OB-NJ 200% MSDS Date: 1/96
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00111 . . . . . .

19-240591 CHEMTAN DIRECT BLUE 16BLL-NS MSDS Date: 5/96
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?:

Component Information	CAS Number	Threshold
1 COPPER CPD. (3%)	7440-50-8	

. . . . . End of # 19-24059 . . . . . .

04-000106 CHEMTAN DIRECT BRILLIANT VIOLET B 100% MSDS Date: 12/87
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00010 . . . . . .

04-000478 CHEMTAN DIRECT CATECHINE 3G-NB MSDS Date: 10/87
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00047 . . . . . .

19-240409 CHEMTAN DIRECT FAST ORANGE WS 150% MSDS Date: 10/86
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24040 . . . . . .

04-000107 CHEMTAN DIRECT FAST RED 8BL MSDS Date: 6/86
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00010 . . . . . .

19-240478 CHEMTAN DIRECT VIOLET 4BL MSDS Date: 2/89
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 COPPER CPD	7440-50-8	1 MG/M3
2 MINERAL OIL	8012-95-1	5 MG/M3
3 SODIUM SULFATE	7767-82-6	NE

. . . . . End of # 19-24047 . . . . . .

19-240581 CHEMTAN DIRECT YELLOW 8G MSDS Date: 10/95
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24058 . . . . . .

60-120121 CHEMTAN DN MSDS Date: 8/97
Sup/Manuf: CHEMTAN CO. Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 17 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

	Component Information	CAS Number	Threshold
1	NAPHTHALENE SULFONIC ACID	9069-80-1	NE
2	AMMONIUM SULFATE (1%)	7783-20-2	NE
3	AMMONIUM BISULFATE (1%)	7803-63-6	NE

. . . . . End of # 60-12012 . . . . . .

60-120101 CHEMTAN E-32 MSDS Date: 12/97
Sup/Manuf: CHEMTAN CO. Cat: MILD ACID
Haz/Non-Haz:H Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	METHANOL-FREE (2.7%>	67-56-1	200 PPM

. . . . . End of # 60-12010 . . . . . .

04-001117 CHEMTAN F-40 MSDS Date: 8/95
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: Y EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	TRIETHYLAMINE (1.4%)	121-44-8	10 PPM
2	N-METHYL-2-PYROLIDONE (5%)	872-50-4	NE

. . . . . End of # 04-00111 . . . . . .

04-000311 CHEMTAN M-2 MSDS Date: 4/86
Sup/Manuf: CHEMTAN CO. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	ZIRCONIUM CPDS	7440-67-7	5 MG/M3
2	SILICATES		

. . . . . End of # 04-00031 . . . . . .

19-120422 CHEMTAN M-35 MSDS Date: 2/98
Sup/Manuf: CHEMTAN CO. Cat: IRRITANT/MILD ACID
Haz/Non-Haz:H Depts: 19 Targ:LUNG, LIVER, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 2
SARA III?: N EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	ZIRCONIUM OXIDE	1314-23-4	5 MG/M3
2	HAFNIUM OXIDE	12055-23-1	0.5 MG/M3
3	SULFURIC ACID	7664-93-9	1 MG/M3

. . . . . End of # 19-12042 . . . . . .

04-000131 CHEMTAN MORDANT CHROME BROWN 2R 130% MSDS Date: 4/87
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYES, AVOID SKIN CONTA
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 MORDANT BROWN 33	3618-62-0	NE

. . . . . End of # 04-00013 . . . . . .

04-000480 CHEMTAN N-29 MSDS Date: 7/85
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00048 . . . . . .

04-000310 CHEMTAN N-30D FLAKE MSDS Date: 4/86
Sup/Manuf: CHEMTAN CO. Cat: MILD ACID
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 NITRIC ACID	7697-37-2	2 PPM

. . . . . End of # 04-00031 . . . . . .

17-120144 CHEMTAN N-34R MSDS Date: 4/96
Sup/Manuf: CHEMTAN CO. Cat: IRRITANT
Haz/Non-Haz:H Depts: 17 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 MAGNESIUM OXIDE	1309-48-4	15 MG/M3

. . . . . End of # 17-12014 . . . . . .

19-120426 CHEMTAN N-36 MSDS Date: 5/98
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 19 Targ:NONE
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12042 . . . . . .

04-000576 CHEMTAN N-37 MSDS Date: 5/90
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 17 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00057 . . . . . .

04-000115 CHEMTAN PAPER BLACK RT MSDS Date: 9/86
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM BISULFITE	7631-90-5	

. . . . . End of # 04-00011 . . . . . .

04-001111 CHEMTAN R-102 MSDS Date: 3/94
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM DISTILLATE	64742-46-7	5 MG/M3
2 MONO ETHANOLAMINE	141-43-5	3 PPM

. . . . . End of # 04-00111 . . . . . .

04-001112 CHEMTAN R-74 MSDS Date: 2/94
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00111 . . . . . .

19-120557 CHEMTAN R-97 MSDS Date: 2/96
Sup/Manuf: CHEMTAN CO. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: C Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 HYDRO-TREATED MIDDLE PETROL.DISTILLATE	64742-46-7	200 PPM
2 ETHANOLAMINE (N/A)	141-43-5	3 PPM
3 2-BUTOXYETHANOL (11%)	111-76-2	25 PPM

. . . . . End of # 19-12055 . . . . . .

04-000006 CHEMTAN REACTIVE BLACK BF-SP MSDS Date: 12/97
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NONE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00000 . . . . . .

04-000488 CHEMTAN REACTIVE BLACK BFR MSDS Date: 10/89
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 REACTIVE AZO DYE-TRADE SECRET		
2 REACTIVE AZO DYE-TRADE SECRET		

. . . . . End of # 04-00048 . . . . . .

04-000007 CHEMTAN REACTIVE BLACK RB MSDS Date: 9/98
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NONE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00000 . . . . . .

04-000489 CHEMTAN REACTIVE NAVY S-GRN MSDS Date: 8/89
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 TRADE SECRET NE
. . . . . End of # 04-00048 . . . . . .

19-240429 CHEMTAN REACTIVE ORANGE CX-G MSDS Date: 6/91
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24042 . . . . . .

04-000005 CHEMTAN REACTIVE RED MX-8B MSDS Date: 3/98
Sup/Manuf: CHEMTAN CO. Cat: DYESTUSS
Haz/Non-Haz:N Depts: 14 Targ:NONE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00000 . . . . . .

04-000490 CHEMTAN REACTIVE RED S-2BN MSDS Date: 8/89
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 TRADE SECRET NE
. . . . . End of # 04-00049 . . . . . .

04-000487 CHEMTAN REACTIVE SCARLET S-2GN MSDS Date: 8/89
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 TRADE SECRET NE
. . . . . End of # 04-00048 . . . . . .

04-000687 CHEMTAN REACTIVE TURQUOISE BLUE G-E MSDS Date: 3/90
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI REACTIVE BLUE 7 (CU CPD 66%)	7440-50-8	NE
2 COPPER CPD (3%)	7440-50-8	1 MG/M3
3 MINERAL OIL	8012-95-1	5 MG/M3
4 TETRASODIUM PYROPHOSPHATE	7722-88-5	5 MG/M3

. . . . . End of # 04-00068 . . . . . .

04-000686 CHEMTAN REACTIVE TURQUOISE HA MSDS Date: 2/90
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPRIETARY DYE (CU CPD 75%)	7440-50-8	NE
2 COPPER CPD (6%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00068 . . . . . .

04-000688 CHEMTAN REACTIVE TURQUOISE VS-RP MSDS Date: 8/90
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPRIETARY DYE (CU CPD 35%)	7440-50-8	NE
2 COPPER CPD (3%)	7440-50-8	1 MG/M3
3 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00068 . . . . . .

04-000491 CHEMTAN REACTIVE YELLOW S-RGN MSDS Date: 8/88
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRADE SECRET		

. . . . . End of # 04-00049 . . . . . .

19-240575 CHEMTAN RESORCINE BROWN B MSDS Date: 1/90
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24057 . . . . . .

04-001110 CHEMTAN S-30 MSDS Date: 10/94
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00111 . . . . . .

04-000050 CHEMTAN S-33 MSDS Date: 6/97
Sup/Manuf: CHEMTAN CO. Cat: SOLVENT BASE
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 1-BUTOXY-2-PROPANOL	5131-66-8	

. . . . . End of # 04-00005 . . . . . .

04-000111 CHEMTAN STILLBENE YELLOW 3GA 150% MSDS Date: 2/89
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00011 . . . . . .

04-000128 CHEMTAN SULFUR BLACK RTC MSDS Date: 8/88
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM BISULFITE	7631-90-5	5 MG/M3

. . . . . End of # 04-00012 . . . . . .

04-000308 CHEMTAN SULFUR BLACK R MSDS Date: 9/86
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM BISULFITE	7631-90-5	5 MG/M3

. . . . . End of # 04-00030 . . . . . .

04-000102 CHEMTAN SULFUR BLACK R LIQUID MSDS Date: 8/88
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00010 . . . . . .

04-000103 CHEMTAN SULFUR GREEN 5 BT MSDS Date: 4/88
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00010 . . . . . .

04-000101 CHEMTAN SULFUR NAVY GT MSDS Date: 11/88
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00010 . . . . . .

04-001109 CHEMTAN T-13 MSDS Date: 9/91
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 SODIUM SALF OF COND. NAPHTHALENE SULF AC
. . . . . End of # 04-00110 . . . . . .

04-001113 CHEMTAN T-25 MSDS Date: 10/91
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 FREE METHANOL (1%) 67-56-1
. . . . . End of # 04-00111 . . . . . .

04-000481 CHEMTAN WATTLE LT MSDS Date: 2/88
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00048 . . . . . .

01-000147 CHERRY RED LA-2270 MSDS Date: 6/87
Sup/Manuf: ROHM & HAAS Cat: SOLVENT/PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 2-AMINO-3-METHYL-1-PROPANOL 124-68-5 3 PPM
2 N-METHYL PYRROLIDONE 872-50-4 50 PPM
. . . . . End of # 01-00014 . . . . . .

11-000115 CHROMATE INDICATOR R-0630 MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat: ALKALI
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN, KIDNEYS
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 POTASSIUM CHROMATE (5%) 7789-00-6
. . . . . End of # 11-00011 . . . . . .

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04-000818  CHROME LEATHER BLACK R                    MSDS Date:
Sup/Manuf: ICI STAHL USA                        Cat:
Haz/Non-Haz:   Depts:                       Targ:
               Plant:
Personal Health Code:    Indexes-> Health:    Fire:    Reactivity:
SARA III?:    EPA:          Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO INFO ON MSDS
. . . . . . . . . . . . End of # 04-00081 . . . . . . . . . . . . . . . . .
04-000307  CHROME YELLOW 8256-BCN                    MSDS Date:  7/86
Sup/Manuf: PILAR INC.                           Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                 Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 2  Fire: 0  Reactivity: 1
SARA III?:    EPA:          Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  LEAD CPD.                                               0.1 MG/M3
2  CHROMIUM CPD.                             7440-47-3    0.5 MG/M3
. . . . . . . . . . . . End of # 04-00030 . . . . . . . . . . . . . . . . .
19-120305  CHROMITAN FM                              MSDS Date:  3/90
Sup/Manuf: BASF                                 Cat: MILD ACIDIC
Haz/Non-Haz:H  Depts:    14  19             Targ:NONE ESTABLISHED
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: Y  EPA: 1 2       Experimental ?: N
   Component Information                     CAS Number   Threshold
   (CHROMIUM III IN ABOVE 20.6%
1  SODIUM FORMATE                            141-53-7     5 MG/M3
2  CHROMIUM HYDROXIDE SULFATE (66%)          7440-47-3    0.5 MG/M3
3  SODIUM SULFATE                            7757-82-6    NE
. . . . . . . . . . . . End of # 19-12030 . . . . . . . . . . . . . . . . .
04-000049  CHROMOPOL SG-G                            MSDS Date:  5/85
Sup/Manuf: TFL                                  Cat: FATLIQUOR
Haz/Non-Haz:N  Depts:    14                 Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:          Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREGIENTS
. . . . . . . . . . . . End of # 04-00004 . . . . . . . . . . . . . . . . .
04-000156  CHROMOPOL UFB-G                           MSDS Date:  8/82
Sup/Manuf: TFL                                  Cat: FATLIQUOR
Haz/Non-Haz:N  Depts:    14                 Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 1
SARA III?:    EPA:          Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00056 . . . . . . . . . . . . . . . . .
04-000622  CIBACRON BLUE F-GFN                       MSDS Date: 10/90
Sup/Manuf: TFL                                  Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                 Targ:LUNG, SKIN
               Plant:
Personal Health Code: E  Indexes-> Health: 2  Fire: 1  Reactivity: 0
SARA III?: N  EPA: 1 2       Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  DISODIUM PHOSPHATE                        7558-79-4
. . . . . . . . . . . . End of # 04-00062 . . . . . . . . . . . . . . . . .
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04-001106 CIBACRON BLUE LS-3R HIGH CONC. MSDS Date: 10/94
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: D Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00110 . . . . . .
04-000897 CIBACRON NAVY C-B MSDS Date: 10/90
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y
Component Information CAS Number Threshold
1 PROPRIETARY DYE NE
. . . . . End of # 04-00089 . . . . . .
04-000621 CIBACRON NAVY F-4R MSDS Date: 2/90
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
1 CIBACRON NAVY F-4R
. . . . . End of # 04-00062 . . . . . .
04-000620 CIBACRON NAVY F-G MSDS Date: 10/90
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y
Component Information CAS Number Threshold
1 TRISODIUM PHOSPHATE 76-54-9
. . . . . End of # 04-00062 . . . . . .
04-000359 CIBACRON RED F-B MSDS Date: 10/90
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y
Component Information CAS Number Threshold
1 DISODIUM PHOSPHATE 7558-79-4 NE
. . . . . End of # 04-00035 . . . . . .
04-001107 CIBACRON RED LS-6G HIGH CONC. MSDS Date: 9/94
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 PROPRIETARY AZO DYE
. . . . . End of # 04-00110 . . . . . .

04-000896 CIBACRON YELLOW C-R-01 MSDS Date: 11/91
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00089 . . . . . .

04-000623 CIBACRON YELLOW F-3R MSDS Date: 10/88
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 DISODIUM PHOSPHATE	7558-79-4	

. . . . . End of # 04-00062 . . . . . .

04-000583 CIBAFAST W MSDS Date: 7/90
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 BENZOTRIAZOLESULFONATED		NE

. . . . . End of # 04-00058 . . . . . .

19-120580 CINITEX L-3 MSDS Date: 5/98
Sup/Manuf: TFL Cat:
Haz/Non-Haz:N Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO INFORMATION REPORTED		

. . . . . End of # 19-12058 . . . . . .

13-000131 CITGO A/W HYDRAULIC OIL 46 MSDS Date: 9/85
Sup/Manuf: CITCO PETROLEUM CORP. Cat: NON-HAZARDOUS
Haz/Non-Haz:N Depts: 13 Targ:
Plant:
Personal Health Code: A Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00013 . . . . . .

07-000113 CLEANER L-7168 MSDS Date: 1/89
Sup/Manuf: UNION SPECIALTIES Cat: ALKALI
Haz/Non-Haz:H Depts: 17 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M3
2 2-BUTOXYETHANOL	111-76-2	25 PPM

. . . . . End of # 07-00011 . . . . . .

07-000106 CLEANER L-7172 MSDS Date: 3/89
Sup/Manuf: UNION SPECIALTIES Cat: ALKALI
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M3
2 2-BUTOXYETHANOL	111-76-2	50 PPM

. . . . . End of # 07-00010 . . . . . .

13-000107 CONTAX II MSDS Date: 8/96
Sup/Manuf: PREMIER INDUSTRIAL Cat: SOLVENT
Haz/Non-Haz:H Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 DICHLOROFLUOROETHANE	1717-00-6	
2 CARBON DIOXIDE	124-38-9	

. . . . . End of # 13-00010 . . . . . .

13-000102 CONVEYOR & CHAIN LUBE. #4552-1 MSDS Date: 1/86
Sup/Manuf: LUBRICOTE CORP. Cat: GREASE
Haz/Non-Haz:H Depts: 13 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: X Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MINERAL OILS	8012-95-1	5 MG/M3

. . . . . End of # 13-00010 . . . . . .

13-000108 COPPER WELDING WIRE & RODS(OXWELD&LINDE) MSDS Date: 11/86
Sup/Manuf: MEIER METAL SERV. Cat: METAL
Haz/Non-Haz:H Depts: 13 Targ:
Plant:
Personal Health Code: X Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MIXTURE-COPPER WIRE & RODS		SEE MSDS

. . . . . End of # 13-00010 . . . . . .

19-120571 CORATYL G MSDS Date: 9/91
Sup/Manuf: HODGSON CHEM. Cat: DUST
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 ALUMINOSILICIC ACID, SODIUM SALT	1344-00-9	10 MG/M3

. . . . . End of # 19-12057 . . . . . .

04-000625 CORIACIDE BLACK BROWN B MSDS Date: 1/90
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00062 . . . . . .

04-000890 CORIACIDE OLIVE GREEN MSDS Date: 4/93
Sup/Manuf: ICI STAHL USA Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: Fire: Reactivity:
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
AZO ACID DYE

. . . . . End of # 04-00089 . . . . . .

04-000914 CORIACIDE ORANGE BROWN X3R MSDS Date: 10/89
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS

. . . . . End of # 04-00091 . . . . . .

04-000472 CORIACIDE RED NR MSDS Date: 5/88
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 C.I.ACID RED 97 10169-02-5 NE

. . . . . End of # 04-00047 . . . . . .

04-000471 CORIACIDE SCARLET R MSDS Date: 6/87
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 C.I.ACID RED 97 10169-02-5 NE

. . . . . End of # 04-00047 . . . . . .

01-000416 CORIAL BINDER M-60 MSDS Date: 9/90
Sup/Manuf: BASF Cat: MILD ACIDIC
Haz/Non-Haz:N Depts: 21 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS

. . . . . End of # 01-00041 . . . . . .

01-000289 CORIAL BINDER OBN MSDS Date: 7/90
Sup/Manuf: BASF Cat: POLYMER
Haz/Non-Haz:N Depts: 21 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS

. . . . . End of # 01-00028 . . . . . .

01-000326 CORIAL BINDER OHN MSDS Date: 7/90
Sup/Manuf: BASF Cat: ACIDIC
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00032 . . . . . .

01-000343 CORIAL BINDER OK MSDS Date: 11/88
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00034 . . . . . .

04-000368 CORIAL HARDENER L MSDS Date: 3/89
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 4 Reactivity: 1
SARA III?: N EPA: 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYL ACETATE	141-78-6	400 PPM
2 BUTYL ACETATE	123-86-4	150PPM

. . . . . End of # 04-00036 . . . . . .

01-000342 CORIAL MATT LACQUER NW MSDS Date: 2/90
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 4 Fire: 3 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 METHANOL (4 %)	67-56-1	200 PPM
2 ISOBUTYL ACETATE	110-19-0	150 PPM
3 ISOBUTANOL	78-83-1	50PPM
4 ISOPROPANOL	67-63-0	400 PPM
5 TOLUENE (25%)	108-88-3	100 PPM
6 METHYL CELLOSOLVE ACETATE (25 %)	79-20-9	200 PPM
8 BIS(2-ETHYLHEXYL)PHTHLATE (6%)	117-81-7	5 MG/M3

. . . . . End of # 01-00034 . . . . . .

01-000532 CORIAL WAX G MSDS Date: 1/89
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 4 Reactivity: 1
SARA III?: Y EPA: 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 MIBK (80 %)	108-10-1	50 PPM
2 STODDARD SOLVENT	8052-41-3	100PPM
3 IPA	67-63-0	400 PPM

. . . . . End of # 01-00053 . . . . . .

04-000672 CORIPOL 360-G MSDS Date: 7/92
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	PARAFFIN WAX SULFONIC ACID, NA SALT	68608-15-1	NE
2	CHLORINATED PARAFFIN	63449-39-8	NE
3	SURFACTANT	127087-87-0	NE
4	OLEIC ACID	112-20-1	NE

. . . . . End of # 04-00067 . . . . . .

04-000677 CORIPOL BZN-G MSDS Date: 7/86
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	BISULFITED NATURAL OILS AND FATS		NE
2	TALL OIL FATTY ACID	61791-00-2	NE

. . . . . End of # 04-00067 . . . . . .

04-000202 CORIPOL DXA-G MSDS Date: 6/90
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	IPA	67-63-0	400 PPM
2	HEXAMETHYLENETETRAMINE	100-97-0	
3	SURFACTANT	9013-45-9	
4	SULFOCHLORINATED PARAFFIN	69430-32-6	

. . . . . End of # 04-00020 . . . . . .

19-120548 CORIPOL ICA-G MSDS Date: 1/86
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	CHLORINATED PARAFFIN	61788-76-9	NE
2	CHLORINE	7782-50-5	1 PPM CL
3	HYDROGEN CHLORIDE		5 PPM HCL

. . . . . End of # 19-12054 . . . . . .

04-000190 CORIPOL L 2955 MSDS Date: 2/88
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	NAPHTHENIC DISTILLATE, LIGHT	64742-53-6	5 MG/M3
2	NAPHTHENIC DISTILLATE, HEAVY	64742-42-5	5 MG/M3
3	PEG-9-NONYL PHENYL EHTER	9016-45-9	NE

. . . . . End of # 04-00019 . . . . . .

04-000304 CORIPOL MB-G MSDS Date: 11/87
Sup/Manuf: TFL Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PEG-9-NONYL PHENYL ETHER	9016-45-9	NE

. . . . . End of # 04-00030 . . . . . .

04-000728 CORIPOL SB-G MSDS Date: 4/91
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SULFOSUCCINIC ACID ESTERS, NA/K SALT		NE
2 PETROLEUM HYDROCARBON	64771-72-8	300 PPM
3 POLYOXYETHYLENE OLEYL ETHER	9004-98-2	NE

. . . . . End of # 04-00072 . . . . . .

11-000106 CRESOL RED INDICATOR R-1003K MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT/ALKALI
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 CRESOL RED	1733-12-6	
2 SODIUM HYDROXIDE	1310-73-2	

. . . . . End of # 11-00010 . . . . . .

04-000241 CROMENO BASE MFN MSDS Date: 3/87
Sup/Manuf: TFL Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPRIETARY		10 MG/M3

. . . . . End of # 04-00024 . . . . . .

04-001037 CSW-50 MSDS Date: 4/96
Sup/Manuf: Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00103 . . . . . .

04-000034 CSW-85 MSDS Date: 7/97
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CATIONIC SURFACTANT		
2 ETHOXYLATED NONYLPHENOL	9016-45-9	

. . . . . End of # 04-00003 . . . . . .

04-001034 CTO 9514 MSDS Date: 1/97
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CATIONIC SURFACTANT	TRADE SECRET	NE
2 PETROLEUM DERIVATIVES	MIXTURE	5 MG/M3
3 ETHOXYLATED NONYLPHENOL	9016-45-9	NE

. . . . . End of # 04-00103 . . . . . .

04-000302 CUTALEN 4385 MSDS Date: 3/86
Sup/Manuf: BOEHME FILATEX INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 2-BUTOXYETHANOL	111-76-2	50PPM

. . . . . End of # 04-00030 . . . . . .

04-000301 CUTAPOL TIS MSDS Date: 3/88
Sup/Manuf: BOEHME FILATEX INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM SOLVENT	64741-77-1	NE
2 NONYL PHENOL	25154-52-3	NE
3 ISOBUTANOL	78-83-1	100 PPM

. . . . . End of # 04-00030 . . . . . .

04-000754 CUTISAN TMU-G MSDS Date: 9/85
Sup/Manuf: TFL Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ISOPROPYL ALCOHOL	67-63-0	400 PPM
2 SODIUM BISULFITE	7631-90-5	5 MG/M3

. . . . . End of # 04-00075 . . . . . .

04-000120 CUTOPEL 4385 MSDS Date: 4/89
Sup/Manuf: BOEHME FILATEX INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 2-BUTOXYETHANOL	111-76-2	

. . . . . End of # 04-00012 . . . . . .

11-000102 CW-883L MSDS Date: 10/85
Sup/Manuf: MITCO INC. Cat: ACID
Haz/Non-Haz:H Depts: 11 Targ:
Plant:
Personal Health Code: X Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 ACIDIC LIQUID		IRRITANT

. . . . . End of # 11-00010 . . . . . .

20-120107 D-TERGE L-7264 MSDS Date: 3/98
Sup/Manuf: UNION SPECIALTIES Cat: STRONG ALKALI
Haz/Non-Haz:H Depts: 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: D Indexes-> Health: 3 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 2 5 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M2
2 MONOETHANOLAMINE	141-43-5	3 PPM

. . . . . End of # 20-12010 . . . . . .

04-000079 DAXAD TA MSDS Date: 1/99
Sup/Manuf: TANNIN CORPORATION Cat: ACID
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?:

Component Information	CAS Number	Threshold
1 NAPHTHALEENESULFONIC ACID FORMALIN POLYM	9017-33-8	
2 SULFURIC ACID	7664-93-9	
3 PROPRIETARY COMPONENT		
4 SODIUM SULFATE	7757-82-6	

. . . . . End of # 04-00007 . . . . . .

04-000595 DC 477 RESIN MSDS Date: 6/90
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 3 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 XYLENE (10%)	1330-20-7	100 PPM

. . . . . End of # 04-00059 . . . . . .

01-000886 DEFOAMER 173-59 MSDS Date: 5/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: SOLVENT ODOR
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 PETROLEUM DISTILLATE		

. . . . . End of # 01-00088 . . . . . .

04-000022 DENSODRIN CD MSDS Date: 4/97
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PARAFFIN WAXES	8002-74-2	
2 MINERAL OIL	8041-47-8	
3 PROPRIETARY COMPONENTS		
1 PARAFFIN WAXES	7732-18-5	
2 MINERAL OIL	8042-47-5	

. . . . . End of # 04-00108 . . . . . .

04-000559 DENSODRIN LD 5348 MSDS Date: 3/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

04-000559 DENSODRIN LD 5348 MSDS Date: 3/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
. . . . . End of # 04-00055 . . . . . .
04-000068 DENSODRIN LD 6359 MSDS Date: 4/97
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00006 . . . . . .
19-120473 DENSODRIN NB-350 MSDS Date: 4/97
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 14 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: C Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:
Component Information CAS Number Threshold
NO HAZARDOUS INGRDEIENTS
. . . . . End of # 19-12047 . . . . . .
04-000635 DENSODRIN OF MSDS Date: 8/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00063 . . . . . .
04-000695 DERMA BROWN 5GL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, INGESTION
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
1 IRON SALTS, SOLUBLE 71990-21-1 1 MG/M3
. . . . . End of # 04-00069 . . . . . .
04-001074 DERMA BROWN D2GL CONC POWDER 080 MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 IRON SALTS, SOLUBLE 72207-77-3 1 MG/M3
. . . . . End of # 04-00107 . . . . . .
19-240150 DERMA BROWN DGVL MSDS Date: 5/92
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 2 Experimental ?: N
Component Information CAS Number Threshold
1 CHROMIUM CPD (51%) 7440-47-3 0.5 MG/M3

19-240150 DERMA BROWN DGVL MSDS Date: 5/92
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 2 Experimental ?: N
Component Information CAS Number Threshold
. . . . . End of # 19-24015 . . . . . .
19-240151 DERMA BROWN DR MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 IRON SALTS SOLUBLE 74204-29-8 1 MG/M3
. . . . . End of # 19-24015 . . . . . .
04-001123 DERMA BROWN G2R POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00112 . . . . . .
04-000433 DERMA BROWN HGN POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00043 . . . . . .
19-240606 DERMA BROWN RB CONC POWDER 140 MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N
Component Information CAS Number Threshold
1 COPPER CPD 40% (CU 2%) 7440-50-8
. . . . . End of # 19-24060 . . . . . .
04-000577 DERMA CARBON BF POWDER MSDS Date: 7/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00057 . . . . . .
19-240585 DERMA CARBON BFN/BFS POWDER MSDS Date: 9/96
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 COPPER CPD (2%; CU 0.1%) 7440-50-8 1 MG/M3

19-240585 DERMA CARBON BFN/BFS POWDER MSDS Date: 9/96
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold

. . . . . End of # 19-24058 . . . . . .

19-240586 DERMA CARBON DN POWDER MSDS Date: 5/97
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (10%; CR+3 0.2%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24058 . . . . . .

04-000064 DERMA FINISH LB LIQUID MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM DISTILLATES	64742-65-0	NE
2 ..ETHOXYLATED FATTY ACID	9004-96-0	NE

. . . . . End of # 04-00006 . . . . . .

04-001079 DERMA GREEN BS POWDER MSDS Date: 7/96
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?:

Component Information	CAS Number	Threshold
1 ...TRISODIUM SALT	79135-92-5	NE

. . . . . End of # 04-00107 . . . . . .

19-240152 DERMA GREY LL CONC POWDER MSDS Date: 8/91
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 COBALT CPD (93%)	7440-48-4	0.05 MG/M3

. . . . . End of # 19-24015 . . . . . .

04-001125 DERMA HAVANA R POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00112 . . . . . .

04-000231 DERMACOR BLACK BR MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (94%)	7440-47-3	0.5 MG/M3
1 CHROMIUM CPD.	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00024 . . . . . .

04-000233 DERMACOR BLUE R POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (44%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00023 . . . . . .

19-240556 DERMACOR BORDEAUX B POWDER MSDS Date: 5/92
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (54%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24055 . . . . . .

04-000234 DERMACOR RED B MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (57%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00023 . . . . . .

04-000236 DERMACOR YELLOW 2R MSDS Date: 5/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPD (35%)	7440-48-4	0.1 MG/M3

. . . . . End of # 04-00023 . . . . . .

04-000893 DERMAFIX F-4 LIQUID MSDS Date: 10/90
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00089 . . . . . .

04-000062 DERMAFIX SWE LIQUID MSDS Date: 6/96
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIETHYLENE GLYCOL	111-46-6	50 PPM

. . . . . End of # 04-00006 . . . . . .

04-000456 DERMAFIX T LIQUID MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00045 . . . . . .

19-120575 DERMAFIX WA LIQ MSDS Date: 6/97
Sup/Manuf: CLARIANT CORP. Cat: TOXIC
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 FOMALDEHYDE (3.5%)	50-00-0	

. . . . . End of # 19-12057 . . . . . .

04-000059 DERMAGEN GP LIQ. MSDS Date: 9/97
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00005 . . . . . .

19-240156 DERMALIGHT ORANGE 2RL MSDS Date: 12/81
Sup/Manuf: CLARIANT CORP. Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24015 . . . . . .

04-000696 DERMALIGHT YELLOW LNW MSDS Date: 5/91
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPDS (35%)	7440-48-4	0.05 MG/M3

. . . . . End of # 04-00069 . . . . . .

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04-000063  DERMALIX N PASTE                          MSDS Date:  4/97
Sup/Manuf: CLARIANT CORP.                       Cat:
Haz/Non-Haz:H  Depts:    14                Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: N  EPA: 1 2  4    Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  POLY(DIMETHYLSILOXAN)                     63148-62-9   NE
. . . . . . . . . . . . End of # 04-00006 . . . . . . . . . . . . . . . . .
04-000018  DERUGAN ND                                MSDS Date:  6/94
Sup/Manuf: SCHILL & SEILACHER                   Cat:
Haz/Non-Haz:N  Depts:    14                Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: B  Indexes-> Health: 0  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00001 . . . . . . . . . . . . . . . . .
04-000019  DERUGAN NF                                MSDS Date: 12/93
Sup/Manuf: SCHILL & SEILACHER                   Cat: IRRITANT
Haz/Non-Haz:H  Depts:    14                Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: Y  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  MALEINSAURANHYDRID-DTYREN-COPOLYMER, AMM 26022-09-3   NE
. . . . . . . . . . . . End of # 04-00001 . . . . . . . . . . . . . . . . .
04-000823  DERUGAN NF                                MSDS Date:
Sup/Manuf: STRUKTOL CO.                         Cat:
Haz/Non-Haz:N  Depts:    14                Targ:
               Plant:
Personal Health Code:    Indexes-> Health:    Fire:    Reactivity:
SARA III?:    EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00082 . . . . . . . . . . . . . . . . .
04-001026  DERUGAN Z                                 MSDS Date:  9/93
Sup/Manuf: STRUKTOL CO.                         Cat:
Haz/Non-Haz:H  Depts:    14                Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code:    Indexes-> Health:    Fire:    Reactivity:
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  GLUTARDIALDEHYDE                          111-30-8
. . . . . . . . . . . . End of # 04-00102 . . . . . . . . . . . . . . . . .
01-000657  DF-15                                     MSDS Date:  5/93
Sup/Manuf: STAHL FINISH                         Cat:
Haz/Non-Haz:N  Depts:       21             Targ:EYE, LUNG
               Plant:
Personal Health Code: B  Indexes-> Health: 0  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 01-00065 . . . . . . . . . . . . . . . . .
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04-001127  DIRECT BLACK BHHB SUPRA                    MSDS Date:  4/94
Sup/Manuf: CROMPTON & KNOWLES                    Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                 Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: F  Indexes-> Health: 1  Fire: 1  Reactivity: 1
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00112 . . . . . . . . . . . . . . . . .
04-000484  DIRECT YELLOW 3RL                          MSDS Date:  6/87
Sup/Manuf: CROMPTON & KNOWLES                    Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                 Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00048 . . . . . . . . . . . . . . . . .
01-000380  DISPERCOLL U KA-8464                       MSDS Date:  7/90
Sup/Manuf: BAYER CORP.                           Cat:
Haz/Non-Haz:N  Depts:       21              Targ:EYE, LUNG, SKIN
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   ALL COMPONENTS BELOW HAZ LEVEL
. . . . . . . . . . . . End of # 01-00038 . . . . . . . . . . . . . . . . .
04-000113  DOW CORNING 200 FLUID                      MSDS Date:  4/90
Sup/Manuf: DOW CORNING                           Cat:
Haz/Non-Haz:N  Depts:    14                 Targ:EYE, SKIN
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 1
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00011 . . . . . . . . . . . . . . . . .
04-000575  DOW CORNING 5700 ANTIMICROBIAL AGENT       MSDS Date:  1/91
Sup/Manuf: DOW CORNING                           Cat: SOLVENT
Haz/Non-Haz:H  Depts:    14                 Targ:EYE, LUNG, SKIN,INGEST
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 3  Reactivity: 0
SARA III?: Y  EPA: 1 2  4    Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  METHANOL (50%)                            67-56-1      200 PPM
2  (3-CHLOROPROPYL)TRIMETHOXYSILANE          2530-87-2    200 PPM
3  OCTADECYLAMINODIMETHYL-TRIMETHOXYSILYL-   27668-52-6   200 PPM
4  PROPYL AMMONIUM CHLORIDE
. . . . . . . . . . . . End of # 04-00057 . . . . . . . . . . . . . . . . .
04-000296  DOW CORNING SOFTENER DSW                   MSDS Date:  9/87
Sup/Manuf: DOW CORNING                           Cat: SOLVENT
Haz/Non-Haz:H  Depts:    14                 Targ:
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?:    EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  ETHYLENE GLYCOL                           107-21-1     50 PPM
. . . . . . . . . . . . End of # 04-00029 . . . . . . . . . . . . . . . . .
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04-000295  DOW CORNING SOFTENER SSW                    MSDS Date:  2/87
Sup/Manuf: DOW CORNING                          Cat: SOLVENT
Haz/Non-Haz:H  Depts:    14                 Targ:
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?:    EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  AMINO POLYPILOXANE                                     NE
. . . . . . . . . . . . End of # 04-00029 . . . . . . . . . . . . . . . . .
11-000113  DOWTHERM SR-1 HEAT TRANSFER FLUID           MSDS Date:  1/86
Sup/Manuf: DOW CHEMICAL                         Cat: SOLVENT
Haz/Non-Haz:H  Depts: 11                  Targ:
               Plant:
Personal Health Code: B  Indexes-> Health: 2  Fire: 1  Reactivity: 0
SARA III?:    EPA:           Experimental ?: N
   Component Information                     CAS Number   Threshold
1  ETHYLENE GLYCOL                           107-21-1     50 PPM
2  DIETHYLENE GLYCOL                         111-46-6
3  DIPOTASSIUM PHOSPHATE                     7758-11-4
. . . . . . . . . . . . End of # 11-00011 . . . . . . . . . . . . . . . . .
04-000936  DRASIL 33                                   MSDS Date:  5/93
Sup/Manuf: HODGSON CHEM.                        Cat: POSSIBLE MUTAGEN
Haz/Non-Haz:H  Depts:    14                 Targ:EYE, LUNG, SKIN
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: N  EPA: 1 2       Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  HYDROCHLORIC ACID                         7647-01-1    5 PPM
2  1,3-DICHLOROPORPANE-2-OL (3%)             96-32-1      NE
. . . . . . . . . . . . End of # 04-00093 . . . . . . . . . . . . . . . . .
19-120578  DRASIL M                                    MSDS Date:  6/94
Sup/Manuf: HODGSON CHEM.                        Cat:
Haz/Non-Haz:H  Depts:      19              Targ:N/A
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: N
   Component Information                     CAS Number   Threshold
1  MELAMINE FORMALDEHYDE-SOD BISULFITE POLY 64787-97-9    NE
. . . . . . . . . . . . End of # 19-12057 . . . . . . . . . . . . . . . . .
44-000102  DRIERITE                                    MSDS Date:  5/86
Sup/Manuf: H.DRIERITE CO.                       Cat:
Haz/Non-Haz:H  Depts:    14                 Targ:
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?:    EPA:           Experimental ?: N
   Component Information                     CAS Number   Threshold
1  COBALT CHLORIDE                           7440-47-4    0.1 MG/M3
. . . . . . . . . . . . End of # 44-00010 . . . . . . . . . . . . . . . . .
04-000656  DRIMARENE BLACK R-RB POWDER                 MSDS Date:  3/90
Sup/Manuf: CLARIANT CORP.                       Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                 Targ:EYE, LUNG, SKIN,INGEST
               Plant:
Personal Health Code: F  Indexes-> Health: 2  Fire: 1  Reactivity: 0
SARA III?: N  EPA: 1 2       Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  CI REACTIVE BLACK                         17095-24-8   NE
. . . . . . . . . . . . End of # 04-00065 . . . . . . . . . . . . . . . . .
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04-000044 DRIMARENE BLACK VS-RDP POWDER 150 MSDS Date: 3/97
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?:

Component Information	CAS Number	Threshold
1 C.I.REACTIVE BLACK 5 (C.I.20505)	17095-24-8	NE

. . . . . End of # 04-00004 . . . . . .

04-000027 DRIMARENE BLUD K-2RL CDG GRANULES MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER CPD. 55% (CU 5%)	7440-50-8	

. . . . . End of # 04-00002 . . . . . .

04-000657 DRIMARENE BLUE K-2RL CDG GRANULES MSDS Date: 7/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER CPD (5%)	7440-50-8	1 MG/M3
2 FORMALDEHYDE (0.1%)	50-00-0	1 PPM

. . . . . End of # 04-00065 . . . . . .

04-000661 DRIMARENE BLUE R-GL POWDER MSDS Date: 8/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER CPD (4%)	7440-50-8	1 MG/M3
2 PARAFFIN WAX	8002-74-2	2 MG/M3

. . . . . End of # 04-00066 . . . . . .

04-000668 DRIMARENE BRIL RED A-4G POWDER MSDS Date: 9/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00066 . . . . . .

04-000663 DRIMARENE BRIL RED R/K-4BL CDG GRANULES MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00066 . . . . . .

04-000665 DRIMARENE BRIL RED R/K-8B POWDER MSDS Date: 7/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (0.012%)	50-00-0	1 PPM
2 DISTILLATES, ACID TREATED	64742-19-4	NE

. . . . . End of # 04-00066 . . . . . .

04-000669 DRIMARENE BRIL YELLOW R/K-3GL GRANULES MSDS Date: 8/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI REACTIVE YELLOW 25	72139-14-1	NE

. . . . . End of # 04-00066 . . . . . .

04-000036 DRIMARENE BRILLIANT BLUE D-BL GRANULES MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.REACTIVE BLUE 114	72139-17-4	NE
2 WHITE MINERAL OIL	8042-47-5	5 MG/M3

. . . . . End of # 04-00003 . . . . . .

04-000026 DRIMARENE BRILLIANT GREEN K-5BL CDG GR MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 NICKEL CPD. 80% (NI 3%)	7440-02-0	1.0 MG/M3
2 SODIUM CARBONATE	497-19-8	NE

. . . . . End of # 04-00002 . . . . . .

04-000653 DRIMARENE BRILLIANT ORANGE K-3R POWDER MSDS Date: 1/91
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI REACTIVE ORANGE 64	72828-73-0	NE
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00065 . . . . . .

04-000039 DRIMARENE BRILLIANT ORANGE K3R CDG MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.REACTIVE ORANGE 64	72828-73-0	NE

. . . . . End of # 04-00003 . . . . . .

04-000659 DRIMARENE BRILLIANT RED K/BL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00065 . . . . . .

04-000025 DRIMARENE BRILLIANT RED R/K-4BL CDG GR MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00002 . . . . . .

04-000664 DRIMARENE GOLDEN YELLOW K-2R CDG GRANULES MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00066 . . . . . .

04-000024 DRIMARENE GOLDEN YELLOW K-2R CDK GR MSDS Date: 10/96
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: C Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.REACTIVE YELLOW 1125	68155-62-4	NE

. . . . . End of # 04-00002 . . . . . .

04-000043 DRIMARENE NAVY K-2B GRANULES MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00066 . . . . . .

04-000038 DRIMARENE ORANGE K-GL CDG MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 HEXYLENE GLYCOL	107-41-5	25 PPM

. . . . . End of # 04-00003 . . . . . .

04-000662 DRIMARENE ORANGE R-GL POWDER MSDS Date: 8/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00066 . . . . . .

04-000652 DRIMARENE RED K-B POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	MINERAL OIL	8012-95-1	5 MG/M3
2	CI REACTIVE RED 123	68959-17-1	NE

. . . . . End of # 04-00065 . . . . . .

04-000030 DRIMARENE RED R/K-7B GRANULES MSDS Date: 12/98
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: F Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	N-METHYLPYRROLIDONE (2%)	872-50-4	NE

. . . . . End of # 04-00003 . . . . . .

04-000028 DRIMARENE RUBINE R/K-5BL CDG MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	COPPER CPD. 55% (Cu 4%)	7440-50-8	
2	SODIUM ACETATE	127-09-3	NE
3	HEXYLENE GLYCOL	107-41-5	25 PPM

. . . . . End of # 04-00002 . . . . . .

04-000655 DRIMARENE RUBINE R/K-5BL POWDER MSDS Date: 6/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	COPPER CPD (5%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00065 . . . . . .

04-000667 DRIMARENE SCARLET A-2G POWDER MSDS Date: 4/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CI REACTIVE RED 43	64181-81-3	NE

. . . . . End of # 04-00066 . . . . . .

04-000041 DRIMARENE SCARLET K-2G CDG MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: C Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	1-ETHENYL-2-PYRROLIDONE, HOMOPOLYMER	9003-39-8	NE
2	C.I.REACTIVE RED 123	68959-17-1	NE

. . . . . End of # 04-00004 . . . . . .

04-000660 DRIMARENE SCARLET K-2G GRANULES MSDS Date: 8/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CI REACTIVE RED 123	68959-17-1	NE

. . . . . End of # 04-00066 . . . . . .

04-000042 DRIMARENE TURQUOISE R/K-2B CDG GRANULES MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	COPPER CPD. 85% (Cu 8%)	7440-50-8	
1	COPPER CPD (8%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00065 . . . . . .

04-000037 DRIMARENE VIOLET R/K-2RL CDG MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	COPPER CPD. 45% (Cu 1-5%)	7440-50-8	

. . . . . End of # 04-00003 . . . . . .

04-000654 DRIMARENE VIOLET R/K-2RL POWDER MSDS Date: 8/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	COPPER CPD (5%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00065 . . . . . .

04-000029 DRIMARENE YELLOW D-4G CDG MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	MONOAZO DYE		

. . . . . End of # 04-00002 . . . . . .

01-000422 DULL FINISH LA-2148 MSDS Date: 1/92
Sup/Manuf: ROHM & HAAS Cat: ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	ACRYLIC POLYMER	NON HAZ	NONE
2	IND. RESIDUAL MONOMERS	NOT REQ.	NOT REQ.
3	SILICON DIOXIDE	7631-86-9	0.2 MG/M3
4	WATER	7732-18-5	NONE

. . . . . End of # 01-00042 . . . . . .

01-000441 DW-3273 (WD-3273) MSDS Date: 12/95
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: G Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	TRIETHYLAMINE	121-44-8	10 PPM
2	SILICA, AMORPHOUS	7631-86-9	6 MG/M3
3	N-METHYL PYRROLIDONE (7.2%)	872-50-4	NE
4	AMMONIUM HYDROXIDE (0.3%)	1336-21-6	

. . . . . End of # 01-00044 . . . . . .

01-000405 DW-9046 MSDS Date: 6/91
Sup/Manuf: STAHL FINISH Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	TRIETHYLAMINE	121-44-8	10 PPM
2	DIACETONE ALCOHOL	123-42-2	50 PPM
3	N-METHYL PYRROLIDONE	872-50-4	NE
4	NAPHTHA	64742-95-6	NE

. . . . . End of # 01-00040 . . . . . .

04-000670 E-2852 PMN MSDS Date: 8/86
Sup/Manuf: ROHM & HAAS Cat: ACRYLIC EMULSION
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
	NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00067 . . . . . .

04-001033 EASPEROL 161-T MSDS Date: 2/97
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	PETROLEUM DERIVATIVE	TRADE SECRET	5 MG/M3
2	SULFATED FATTY OILS	TRADE SECRET	5 MG/M3
3	ETHOXYLATED NONYLPHENOL	9016-45-9	NE

. . . . . End of # 04-00103 . . . . . .

21-360419 EKTAPRO EEP SOLVENT MSDS Date: 7/92
Sup/Manuf: EASTMAN KODAK Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: EPA: 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHYL 3-ETHOXYPROPIONATE	763-69-9	

. . . . . End of # 21-36041 . . . . . .

04-000250 ELCACID OLIVE BROWN G MSDS Date: 11/85
Sup/Manuf: IDC Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 IRON SALTS		1 MG/M3

. . . . . End of # 04-00025 . . . . . .

01-000381 ELN-33 RESIN MSDS Date: 2/91
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRIETHYLAMINE	121-44-8	10 PPM
2 N-METHYL PYRROLIDONE	872-50-+4	NE

. . . . . End of # 01-00038 . . . . . .

01-000444 ELN-42 FEEL ADDITIVE MSDS Date: 7/91
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIETHYLENE GLYCOL MONOMETHYL ETHER (25%)	111-77-3	NE

. . . . . End of # 01-00044 . . . . . .

04-000837 EMIGEN DPR-A MSDS Date: 2/90
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00083 . . . . . .

04-000736 EMULSION E-2984 PMN MSDS Date: 7/92
Sup/Manuf: ROHM & HAAS Cat:
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00073 . . . . . .

01-000437 EMULSION HPB-980 MSDS Date: 7/95
Sup/Manuf: ROHM & HAAS Cat: MILD ALKALI
Haz/Non-Haz:N Depts: 21 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACRYLIC POLYMER	NON-HAZ	NONE
2 INDIVIDUAL RESIDUAL MONOMERS	NOT REQ	NOT REQ
3 AMMONIA	7664-41-7	25 PPM
4 WATER	7732-18-5	NONE

. . . . . End of # 01-00043 . . . . . .

01-000421 EMULSION ST-89 MSDS Date: 8/90
Sup/Manuf: ROHM & HAAS Cat: ALKALI
Haz/Non-Haz:N Depts: 21 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACRYLIC COPOLYMER	NON HAZ	NONE
2 IND. RESIDUAL MONOMERS	NOT REQ.	NOT REQ.
3 AMMONIA	7664-41-7	25 PPM
4 WATER	7732-18-5	NONE

. . . . . End of # 01-00042 . . . . . .

04-000100. ERHAVIT AF MSDS Date: 8/96
Sup/Manuf: TFL Cat: IRRITANT
Haz/Non-Haz:H Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRADE SECRET		

. . . . . End of # 04-00010 . . . . . .

17-120120 ERHAVIT ANA MSDS Date: 11/97
Sup/Manuf: TFL Cat: ALKALI
Haz/Non-Haz:N Depts: 17 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 17-12012 . . . . . .

04-000721 ERHAZYM 3997 MSDS Date: 10/90
Sup/Manuf: TFL Cat: DUST
Haz/Non-Haz:N Depts: 14 17 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00072 . . . . . .

07-000126 ERHAZYM SPH MSDS Date: 1/91
Sup/Manuf: TFL Cat: ALKALI
Haz/Non-Haz:H Depts: 17 Targ:LUNG, SKIN, INGESTION
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 MAGNESIUM OXIDE (FUME)	1309-48-4	10 MG/M3

. . . . . End of # 07-00012 . . . . . .

04-000755 ESKATAN GLH LIQUID MSDS Date: 1/92
Sup/Manuf: BOEHME FILATEX INC. Cat: SOLVENT MIX
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
11 DISODIUM SALT		
2 ALKYL PHENOL ETHOXYLATE	9016-45-9	NE
3 NONYL PHENOL	25154-52-3	NE
4 ETHANOL,2-AMINO,ACETATE	54300-24-2	NE
5 PETROLEUM HYDROCARBON OIL	64742-54-7	5 MG/M3
6 POLYOXYETHYLENE OLEYL ETHER	9004-98-2	NE
7 GLYCOL ETHERS (<0.7%)		NE

. . . . . End of # 04-00075 . . . . . .

04-000412 ESKATAN GLS MSDS Date:
Sup/Manuf: BOEHME FILATEX INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ALKYLPHENOLETHOXYLATE	9016-45-9	
2 PETROLEUM PROCESS OIL	64742-54-7	5 MG/M3

. . . . . End of # 04-00041 . . . . . .

44-000118 ETHYL ALCOHOL MSDS Date: 7/91
Sup/Manuf: FISHER SCIENTIFIC Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 4 Reactivity: 0
SARA III?: N EPA: 1 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHANOL	64-17-5	1000 PPM
2 BLEND OF CONTAMINANTS		

. . . . . End of # 44-00011 . . . . . .

44-000155 ETHYL ETHER MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 4 Reactivity: 1
SARA III?: N EPA: 1 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHYL ALCOHOL	64-17-5	

. . . . . End of # 44-00015 . . . . . .

44-000132 ETHYLENE TETRAACETIC ACID MSDS Date: 8/85
Sup/Manuf: MALLINCKRODT Cat: SALT
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 EDTA	6381-92-6	

. . . . . End of # 44-00013 . . . . . .

04-000198 EUCORIAL KSP-G MSDS Date: 3/85
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACETIC ACID	64-19-7	10 PPM

04-000198 EUCORIAL KSP-G MSDS Date: 3/85
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold

. . . . . End of # 04-00019 . . . . . .

01-000500 EUDERM COMPACT C MSDS Date: 2/92
Sup/Manuf: BAYER CORP. Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TITANIUM DIOXIDE	1317-80-2	10 MG/M3
2 CALCIUM CARBONATE	471-34-1	10 MG/M3
3 DIBUTYL PHTHALATE (3%)	84-74-2	5 MG/M3
4 ACRYLIC COPOLYMER EMULSION		

. . . . . End of # 01-00050 . . . . . .

01-000458 EUDERM DISPERSION 32A MSDS Date: 7/91
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00045 . . . . . .

01-000626 EUDERM DULLER SN MSDS Date: 11/92
Sup/Manuf: MILES INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SILICA GEL	63231-67-4	6 MG/M3
2 ALIPHATIC PETROLEUM DISTILLATES	64742-88-7	100 PPM
3 ETHYLENE GLYCOL (5%)	107-21-1	50 PPM
4 GLYCOL ETHER (5%)		100 PPM

. . . . . End of # 01-00062 . . . . . .

01-000462 EUDERM FILLER PB MSDS Date: 10/92
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER (5%)	107-98-2	100 PPM
2 SILICA GEL	63231-67-4	10 MG/M3

. . . . . End of # 01-00046 . . . . . .

01-000590 EUDERM FIX PMA MSDS Date: 1/92
Sup/Manuf: BAYER CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIACETONE ALCOHOL	123-42-2	50 PPM

. . . . . End of # 01-00059 . . . . . .

01-000513 EUDERM PRE BOTTOM VE MSDS Date: 5/90
Sup/Manuf: BAYER CORP. Cat: MILD ACIDIC
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00051 . . . . . .

01-000459 EUDERM RESIN 40B MSDS Date: 5/91
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00045 . . . . . .

01-000344 EUKESOL OIL BOTTOM MSDS Date: 3/90
Sup/Manuf: BASF Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00034 . . . . . .

21-360496 EUKESOLAR BLACK R-150 LIQUID MSDS Date: 1/91
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID BLACK 63 (1% CR)	7440-47-3	0.5 MG/M3
2 BUTYL CARBITOL (32.5%)	112-34-5	NE
3 N-METHYL PYRROLIDONE (10%)	872-50-4	100 PPM
4 PROPYLENE GLYCOL MONOMETHYL ETHER (32.5%	107-98-2	100 PPM
5 CHROMIUM COMPOUNDS (1.2%)	7440-47-3	

. . . . . End of # 21-36049 . . . . . .

01-000643 EUKESOLAR BROWN 5R-150 LIQUID MSDS Date: 1/93
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	150 PPM
2 BUTYL CARBITOL (40%)	112-34-5	NE
3 C.I.ACID RED 227		NE
4 COBALT CPD (1.3%)	7440-48-4	0.05 MG/M3

. . . . . End of # 01-00064 . . . . . .

21-360498 EUKESOLAR BROWN R-150 LIQUID MSDS Date: 4/98
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	150 PPM
2 BUTYL CARBITOL (35%)	112-34-5	NE

21-360498 EUKESOLAR BROWN R-150 LIQUID MSDS Date: 4/98
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
3 N-METHYL PYRROLIDONE (4.5%)	872-50-4	NE
4 C.I.ACID YELLOW 59		NE
5 C.I.ACID BLACK 63		NE
6 CHROME CPD (9.6%)	7440-47-3	0.5 MG.M3
7 C.I.ACID RED 227		NE
8 COBALT CPD (8.4%)	7440-48-4	0.05 MG/M3

. . . . . End of # 21-36049 . . . . . .

01-000635 EUKESOLAR LEMON R-150 LIQUID MSDS Date: 1/93
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	150 PPM

. . . . . End of # 01-00063 . . . . . .

01-000636 EUKESOLAR NAVY BLUE R-150 LIQUID MSDS Date: 1/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID VIOLET 74		0.1 MG/M3
2 COBALT CPDS (9.6%)	7440-48-4	0.1 MG/M3
3 C.I.ACID BLACK 63		
4 CHROME CPDS (6.4%)	7440-47-3	0.5 MG/M3
5 BUTYL CARBITOL (47%)	112-34-5	NE
6 N-METHYL PYRROLIDONE(17%)	872-50-4	NE
7 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 PPM

. . . . . End of # 01-00063 . . . . . .

01-000637 EUKESOLAR ORANGE R-150 LIQUID MSDS Date: 12/92
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 PPM
2 BUTYL CARBITOL (42.5%)	11203405	NE
3 C.I.ACID ORANGE 89		NE
4 CHROME CPD (1.1%)	7440-47-3	0.5 MG.M3

. . . . . End of # 01-00063 . . . . . .

01-000641 EUKESOLAR RED G-150 LIQUID MSDS Date: 12/92
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	150 PPM
2 BUTYL CARBITOL (37%)	112-34-5	NE
3 C.I.ACID RED 226		NE
4 CHROME CPD (1.1%)	7440-47-3	0.5 MG/M3

01-000641 EUKESOLAR RED G-150 LIQUID MSDS Date: 12/92
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold

. . . . . End of # 01-00064 . . . . . .

01-000639 EUKESOLAR RUBINE B-150 LIQUID MSDS Date: 12/92
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	150 PPM
2 BUTYL CARBITOL (30%)	112-34-5	NE
3 C.I.ACID RED 296		NE
4 COBALT CPD (1.2%)	7440-48-4	0.05 MG/M3

. . . . . End of # 01-00063 . . . . . .

21-360502 EUKESOLAR YELLOW G-150 LIQUID MSDS Date: 4/97
Sup/Manuf: BASF Cat: SOLVENT BASED
Haz/Non-Haz:H Depts: 21 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 1-METHOXY-2-PROPANOL	107-98-2	100 PPM
2 BUTYL CARBITOL (42.5)	112-34-5	NE
3 CI ACID YELLOW 59 (WITH CHROME)	NE	NE
4 CHROMIUM COMPLEXED IN DYE (1.1%)	7440-47-3	0.5 MG/CU.M

. . . . . End of # 21-36050 . . . . . .

01-000642 EUKOSOLAR YELLOW G-150 LIQUID MSDS Date: 12/92
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	150 PPM
2 BUTYL CARBITOL (42.5%)	112-34-5	NE
3 C.I.ACID YELLOW 59		NE
4 CHROME CPD (15%)	7440-47-3	0.5 MG/M3

. . . . . End of # 01-00064 . . . . . .

04-000293 EULINOL CPK MSDS Date: 3/87
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 IPA	67-63-0	400 PPM
2 PARAFFIN WAX	8002-74-2	2 MG/M3
3 PEG-9-NONYL PHENYL ETHER	9016-45-9	NE

. . . . . End of # 04-00029 . . . . . .

04-000460 EUPILON LP-G MSDS Date: 8/85
Sup/Manuf: TFL Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00046 . . . . . .
04-000709 EUPILON WAS-A MSDS Date: 9/86
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00070 . . . . . .
04-000761 EUPILON WAS-G MSDS Date: 11/86
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00076 . . . . . .
04-000807 EUPILON WAS/1-G MSDS Date: 5/95
Sup/Manuf: TFL Cat: SURFACTANT/IRRITAN
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 SURFACTANT 3624-77-9 NE
2 DISTILLATES, PARAFFINIC 64742-54-7 5 MG/M3
. . . . . End of # 04-00080 . . . . . .
04-000001 EUREKA 1040 MSDS Date: 7/95
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00000 . . . . . .
19-120512 EUREKA 1067-A MSDS Date: 12/98
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12051 . . . . . .

04-000501 EUREKA 395-CX MSDS Date: 11/85
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00050 . . . . . .

19-120522 EUREKA 400-R MSDS Date: 10/98
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 HEXYLENE GLYCOL	107-41-5	25 PPM
2 ETHANOL	64-17-5	1000 PPM

. . . . . End of # 19-12052 . . . . . .

19-120485 EUREKA 575-S MSDS Date: 10/98
Sup/Manuf: ATLAS REFINERY INC. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12048 . . . . . .

04-000780 EUREKA 800-R MSDS Date: 7/90
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00078 . . . . . .

04-000746 EUREKA 800-RCA-2 MSDS Date: 8/91
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ALCOHOL ETHOXYSULPHATE, SODIUM SALT	68585-34-2	1000 PPM

. . . . . End of # 04-00074 . . . . . .

04-001232 EWN GREASE MSDS Date: 2/97
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM DERIVATIVES	TRADE SECRET	

. . . . . End of # 04-00123 . . . . . .

01-000179 EX-0305 MSDS Date: 8/93
Sup/Manuf: STAHL FINISH Cat: SOLVLENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: G Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 2-DIMETHYLAMINOETHANOL	108-01-0	NE

. . . . . End of # 01-00017 . . . . . .

01-000894 EX-1513 FINISHING OIL MSDS Date: 12/94
Sup/Manuf: BASF Cat: OIL
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 PARAFFIN OILS	8012-95-1	
2 FOOTS OIL, PETROLEUM	64742-67-2	

. . . . . End of # 01-00089 . . . . . .

21-360504 EX-51-133 MSDS Date: 1/99
Sup/Manuf: STAHL FINISH Cat:
Haz/Non-Haz:N Depts: 21 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 21-36050 . . . . . .

01-000666 EX-7492 MSDS Date: 2/94
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:LIVER, KIDNEY
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRIETHYLAMINE	121-44-6	10 PPM
2 N-METHYL PRYYOLIDONE	872-50-4	NE

. . . . . End of # 01-00066 . . . . . .

01-000665 EX-7493 MSDS Date: 2/94
Sup/Manuf: STAHL FINISH Cat:
Haz/Non-Haz:H Depts: 21 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIUM STEARATE	68604-33-1	25 PPM

. . . . . End of # 01-00066 . . . . . .

04-000394 EXP 2286-1 MSDS Date: 3/89
Sup/Manuf: CHEMTAN CO. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00039 . . . . . .

04-000693 EXP EMULSION E-2852 MSDS Date: 5/91
Sup/Manuf: ROHM & HAAS Cat:
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACRYLIC COPOLYMER	NOT HAZ	
2 WATER	7732-18-5	N/A

. . . . . End of # 04-00069 . . . . . .

04-001200 EXP. 1240 MSDS Date: 3/96
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: POLYURETHANE
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRIETHYLAMINE	121-44-8	
2 N-METHYL-2-PYRROLIDONE	872-50-4	

. . . . . End of # 04-00120 . . . . . .

04-001098 EXP. 1241 MSDS Date: 3/96
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: POLYURETHANE
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL-2-PYRROLIDONE (2.7%)	872-50-4	
2 SILICON DIOXIDE AMORPHOUS	7631-86-9	

. . . . . End of # 04-00109 . . . . . .

04-001099 EXP. 1248 MSDS Date: 6/96
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00109 . . . . . .

04-000689 EXP. EMULSION E-2896 MSDS Date: 1/91
Sup/Manuf: ROHM & HAAS Cat:
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACRYLIC COPOLYMER	NON-HAZ	NONE
2 WATER	7732-18-5	NONE
3 INDIVIDUAL ACRYLIC MONOMERS	NOT REQ.	NOT REQ

. . . . . End of # 04-00068 . . . . . .

04-001216 EXPERIMENTAL DARK BROWN 37 MSDS Date: 3/97
Sup/Manuf: STAHL USA Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00121 . . . . . .

04-000934 EXPERIMENTAL EMULSION EXP-3193 PMN MSDS Date: 11/93
Sup/Manuf: ROHM & HAAS Cat: ACRYLIC POLYMER
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?:
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00093 . . . . . .
04-000078 FAST ACID BROWN PET MSDS Date: 9/97
Sup/Manuf: TANNIN CORPORATION Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 MIXTURE OF AZO-METAL COMPLEX DYES
. . . . . End of # 04-00007 . . . . . .
04-000419 FELIDERM CS MSDS Date: 7/89
Sup/Manuf: HOESCHST CELANESE Cat: ACID
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
1 FELIDERM CS NE
. . . . . End of # 04-00041 . . . . . .
04-000828 FELIDERM CSN MSDS Date: 6/92
Sup/Manuf: CHEMTAN CO. Cat: STRONG ACID
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
1 GLYOXYLIC ACID 293-12-4
2 SULFURIC ACID 7664-93-9
3 FORMIC ACID 64-18-6
. . . . . End of # 04-00082 . . . . . .
04-000831 FELIDERM W MSDS Date: 10/92
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 AMORPHOUS SILICA 7631-86-9
. . . . . End of # 04-00083 . . . . . .
12-000122 FERROUS CHLORIDE SOLUTION MSDS Date:
Sup/Manuf: EAGLEBROOK, INC. Cat: ACIDIC
Haz/Non-Haz:H Depts: 12 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 HYDROCHLORIC ACID 7647-01-0
. . . . . End of # 12-00012 . . . . . .

21-360450 FI-1339 MSDS Date: 2/97
Sup/Manuf: STAHL FINISH Cat:
Haz/Non-Haz:N Depts: 21 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 21-36045 . . . . . .

01-000690 FI-1895 (KM-101895) MSDS Date: 1/94
Sup/Manuf: STAHL FINISH Cat:
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHANOLAMINE	141-43-5	3 PPM

. . . . . End of # 01-00069 . . . . . .

21-360119 FI-50 (R-50 WAX) MSDS Date: 1/99
Sup/Manuf: STAHL USA Cat:
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MORPHOLINE	110-91-8	20 PPM

. . . . . End of # 21-36011 . . . . . .

21-360505 FI-630 MSDS Date: 1/99
Sup/Manuf: STAHL USA Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 1-BUTOXYETHANOL (4%)	111-76-2	25 PPM
2 POLYOXYETHYLENE NONYLPHENOL ETHER	68412-53-3	NE

. . . . . End of # 21-36050 . . . . . .

21-360451 FI-634 (OLD HM-634) MSDS Date: 1/99
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:LIVER, KIDNEY
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 POLYXYETHYLENE NONYLPHENOL ETHER	68412-53-3	NE
2 ETHYLENE GLYCOL BE (3%)	111-76-2	25 PPM

. . . . . End of # 21-36045 . . . . . .

01-000454 FILLER BT MSDS Date: 8/91
Sup/Manuf: BASF Cat: ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIA AS HYDROXIDE (0.7%)	7664-41-7	25 PPM
2 WATER	7732-18-5	NONE

. . . . . End of # 01-00045 . . . . . .

04-001056 FITAPOR GT MSDS Date: 11/92
Sup/Manuf: FOREIGN DOMESTIC CHEM. CORP. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	TARA POWDER (CESALPINIA SPINOSA)	1401-55-4	
2	TETRASODIUM PYROPHOSPHATE	7722-88-5	

. . . . . End of # 04-00105 . . . . . .

04-000352 FLACAVON B45 MSDS Date: 6/88
Sup/Manuf: STRUKTOL CO. Cat: FLAME RETARDANT
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00035 . . . . . .

04-000413 FLEXO YELLOW 110 MSDS Date: 1/89
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00041 . . . . . .

19-120598 FLEXOBRITE WHITE RNF MSDS Date: 6/96
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: SOLVENT-BASE
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	NONIONIC ETHOXYLATE		
2	PROPYLENE GLYCOL (10%)		

. . . . . End of # 19-12059 . . . . . .

04-000631 FORAFAC 1157N MSDS Date: 6/89
Sup/Manuf: ATOCHEM INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: C Indexes-> Health: 0 Fire: 2 Reactivity: 0
SARA III?: N EPA: 4 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	FLUORINATED PRODUCT	34455-29-3	NE
2	ETHANOL	64-17-5	1000 PPM

. . . . . End of # 04-00063 . . . . . .

04-000846 FORANE 141 B MSDS Date: 7/92
Sup/Manuf: ATOCHEM INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	1,1-DICHLORO-1-FLUOROETHANE	1717-00-6	NE

. . . . . End of # 04-00084 . . . . . .

04-000114 FORAPERLE 303 MSDS Date: 3/91
Sup/Manuf: ATOCHEM INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL	107-21-1	
2 FLUORINATED POLYMER		

. . . . . End of # 04-00011 . . . . . .

04-000116 FORAPERLE 333 MSDS Date: 5/87
Sup/Manuf: ATOCHEM INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 4 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 IPA	67-63-0	
2 FLUORINATED POLYMER		

. . . . . End of # 04-00011 . . . . . .

60-120103 FORMIC ACID 90% MSDS Date: 8/98
Sup/Manuf: BP CHEM. AMERIC Cat: STRONG ACID & ODOR
Haz/Non-Haz:H Depts: 14 17 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 2 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 FORMIC ACID	64-18-6	5 PPM

. . . . . End of # 60-12010 . . . . . .

04-000547 FORMULA 13 MSDS Date:
Sup/Manuf: HI-TECH ASSEMBLIES, INC. Cat:
Haz/Non-Haz:H Depts: 14 17 Targ:EYE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PEROXIDE OF CHLORINE		NE

. . . . . End of # 04-00054 . . . . . .

04-000225 FRAGRANCE 6573-AP MSDS Date: 7/88
Sup/Manuf: INTERNL'FLAVORS & FRAG. Cat: AROMATIC LIQUID
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRADE SECRET		

. . . . . End of # 04-00022 . . . . . .

04-001060 FREESTAT CSN ANTISTATIC AGENT MSDS Date: 5/94
Sup/Manuf: FREEDOM TEXTILE CHEM. CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 3 Reactivity: 0
SARA III?: N EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ISOPROPANOL	67-63-0	400 PPM

. . . . . End of # 04-00106 . . . . . .

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44-000117  FREON 113                                  MSDS Date:  3/90
Sup/Manuf: MALLINCKRODT                          Cat: SOLVENT
Haz/Non-Haz:H  Depts:    14                  Targ:EYE, LUNG, SKIN,INGEST
               Plant:
Personal Health Code: B  Indexes-> Health: 2  Fire: 0  Reactivity: 0
SARA III?: Y  EPA: 1 2       Experimental ?: N
   Component Information                      CAS Number   Threshold
1  1,1,2-TRICHLORO 1,2,2,-TRIFLUOROETHANE     76-13-1      600 MG/M3
. . . . . . . . . . . . End of # 44-00011 . . . . . . . . . . . . . . . . .
04-000289  FUROPOL R 684                              MSDS Date:  1/83
Sup/Manuf: TFL                                   Cat: SOLVENT
Haz/Non-Haz:H  Depts:    14                  Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 2  Fire:    Reactivity:
SARA III?:    EPA:           Experimental ?: Y
   Component Information                      CAS Number   Threshold
1  PERCHLOROETHYLENE                          127-18-4     335 MG/M3
. . . . . . . . . . . . End of # 04-00028 . . . . . . . . . . . . . . . . .
04-000838  GENAMIN C 050                              MSDS Date: 11/92
Sup/Manuf: CHEMTAN CO.                           Cat:
Haz/Non-Haz:H  Depts:    14                  Targ:EYE, SKIN
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 1
SARA III?: N  EPA: 1         Experimental ?: Y
   Component Information                      CAS Number   Threshold
1  GENAMIN C 050
. . . . . . . . . . . . End of # 04-00083 . . . . . . . . . . . . . . . . .
04-000515  GENERIC AQUEOUS ACRYLIC EMULSION TYPE 1    MSDS Date:  8/86
Sup/Manuf: ROHM & HAAS                           Cat: ACRYLIC
Haz/Non-Haz:N  Depts:    14                  Targ:N/A
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                      CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00051 . . . . . . . . . . . . . . . . .
04-000937  GL-63931                                   MSDS Date:  7/91
Sup/Manuf: TFL                                   Cat: IRRITANT
Haz/Non-Haz:H  Depts:    14                  Targ:
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA: 1         Experimental ?: Y
   Component Information                      CAS Number   Threshold
1  NAPHTHENIC DISTILLATE, LIGHT               64742-53-6   5 MG/M3
2  NAPHTHENIC DISTILLATE, HEAVY               64742-42-5   5 MG/M3
3  SURFACTANT                                 127087-87-0  NE
4  SURFACTANT                                 26027-38-3   NE
. . . . . . . . . . . . End of # 04-00093 . . . . . . . . . . . . . . . . .
04-000902  GL-63931, 63932, 63933                     MSDS Date:  7/91
Sup/Manuf: TFL                                   Cat:
Haz/Non-Haz:H  Depts:    14                  Targ:EYE, LUNG, SKIN
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: N  EPA: 1         Experimental ?: Y
   Component Information                      CAS Number   Threshold
1  NAPHTHENIC DISTILLATE, LIGHT               64742-53-6   5 MG/M3
2  NAPHTHENIC DISTILLATE, HEAVY               64742-42-5   5 MG/M3
3  SURFACTANTS, BLEND                                      NE
. . . . . . . . . . . . End of # 04-00090 . . . . . . . . . . . . . . . . .
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19-120430 GLYCERINE USP 96% MSDS Date: 5/89
Sup/Manuf: DOW CHEMICAL Cat: NON-HAZ OIL
Haz/Non-Haz:N Depts: 14 19 Targ:EYE
Plant:
Personal Health Code: A Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12043 . . . . . .

21-360287 GLYCOL ETHER EB (BUTYL CELLUSOLVE) MSDS Date: 12/98
Sup/Manuf: UNION CARBIDE Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:SKIN
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL MONOBUTYL ETHER (99%)	111-76-2	100PPM
2 ETHYLENE GLYCOL	107-21-1	

. . . . . End of # 21-36028 . . . . . .

04-000789 GRANOFIN V 3991 MSDS Date: 5/92
Sup/Manuf: HOECHST CELANESE CORP. Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 GRANOFIN V 3991		10 MG.M3

. . . . . End of # 04-00078 . . . . . .

04-000341 GRASSAN PA-B-2 MSDS Date: 8/87
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00034 . . . . . .

04-000356 GRASSAN PA-C-5 MSDS Date: 8/89
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00035 . . . . . .

04-000765 GRASSAN TS MSDS Date: 11/91
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIPROPYLENE GLYCOL METHYL ETHER	34590-94-8	100 PPM
2 PARAFFIN OILS		NE

. . . . . End of # 04-00076 . . . . . .

19-120505 HAMPENE 220 MSDS Date: 12/85
Sup/Manuf: W.R.GRACE & CO. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M3

. . . . . End of # 19-12050 . . . . . .

11-000130 HARDNESS BUFFER R-0619 MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat: ALKALI
Haz/Non-Haz:H Depts: 11 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIUM HYDROXIDE (30%)	1336-21-6	18 MG.M3
2 AMMONIUM CHLORIDE	12125-02-9	NE
3 AMMONIUM SULFIDE	12135-76-1	NE

. . . . . End of # 11-00013 . . . . . .

11-000118 HARDNESS INDICATOR POWDER R-0620 MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT
Haz/Non-Haz:H Depts: 11 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SUCROSE	57-50-1	
2 ERIOCHROME BLACK T	1787-61-7	

. . . . . End of # 11-00011 . . . . . .

11-000116 HARDNESS REAGENT R-0683 MSDS Date: 6/92
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT\ALKALI
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHLENEDIAMINETETRA-ACETIC AID	60-00-4	
2 SODIUM HYDROXIDE	1310-73-2	
3 MAGNESIUM CHLORIDE	7786-30-3	

. . . . . End of # 11-00011 . . . . . .

12-000105 HAVILAND ERO MSDS Date: 1/88
Sup/Manuf: HAVILAND PRODUCTS Cat: MILD ACID
Haz/Non-Haz:H Depts: 12 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHOXYLATED OCTYL PHENOL	9004-87-9	NE

. . . . . End of # 12-00010 . . . . . .

44-000145 HEPTANE MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 3 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 HEPTANE	142-82-5	400 PPM

. . . . . End of # 44-00014 . . . . . .

44-000139 HEXADECANE MSDS Date: 7/75
Sup/Manuf: EASTMAN KODAK Cat: OIL
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00013 . . . . . .

44-000116 HEXANE MSDS Date: 11/95
Sup/Manuf: FISHER SCIENTIFIC Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 3 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 N-HEXANE	110-54-3	30 PPM

. . . . . End of # 44-00011 . . . . . .

21-360452 HM-2215 MSDS Date: 2/97
Sup/Manuf: STAHL FINISH Cat:
Haz/Non-Haz:N Depts: 21 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 21-36045 . . . . . .

21-360465 HM-2812 (SW-812) MSDS Date: 2/93
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHOXYLATED ALCOHOLS	68131-40-8	NE
2 TRIMETHYLATED SILICA		NE

. . . . . End of # 21-36046 . . . . . .

01-000259 HM-34 MSDS Date: 11/91
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL MONOBUTYL ETHER (1%)	111-76-2	25 PPM
2 FLUOROCHEMICAL CPD.		NE

. . . . . End of # 01-00025 . . . . . .

01-000896 HM-354 MSDS Date: 3/97
Sup/Manuf: STAHL USA Cat:
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHOXYLATED ALCOHOLS	68131-40-8	
2 TRIMETHYLATED SILICA	NE	

. . . . . End of # 01-00089 . . . . . .

21-360464 HM-4790 MSDS Date: 4/93
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

	Component Information	CAS Number	Threshold
1	FLUOROCHEMICAL CPD		NE
2	ETHYLENE GLYCOL MONOBUTYL ETHER (9%)	111-76-2	25 PPM
3	ISOPROPYL ALCOHOL	67-63-0	400 PPM
4	N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 21-36046 . . . . . .

01-000304 HM-902 MSDS Date: 10/95
Sup/Manuf: STAHL FINISH Cat:
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	RESIDUAL MONOMERS		NE

. . . . . End of # 01-00030 . . . . . .

21-360489 HODGCO S-84 (FONDO S-84) MSDS Date: 4/95
Sup/Manuf: HODGSON CHEM. Cat: SILICONE
Haz/Non-Haz:H Depts: 21 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	SILICA, AMORPHOUS	7631-86-9	6 MG/M3
2	2-AMINO-2-METHYL-1-PROPANOL	124-68-5	NE

. . . . . End of # 21-36048 . . . . . .

04-001093 HUMECTOL RAPID MSDS Date: 6/95
Sup/Manuf: TANNIN CORPORATION Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	PROTEASE	9014-01-1	
2	SODIUM DIOCTILSULPHOSUCC	577-11-7	
3	ETHYLENGLYCOL SUBTILISINE	107-21-1	

. . . . . End of # 04-00109 . . . . . .

17-120106 HYDRATED LIME BAGS MSDS Date: 4/98
Sup/Manuf: MISS. LIME CO. Cat: ALKALI
Haz/Non-Haz:H Depts: 17 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

	Component Information	CAS Number	Threshold
1	CALCIUM HYDROXIDE	1305-62-0	5MG/M3

. . . . . End of # 17-12010 . . . . . .

44-000115 HYDROCHLORIC ACID MSDS Date: 9/86
Sup/Manuf: MALLINCKRODT Cat: STRONG ACID
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 2 3 Experimental ?: N

	Component Information	CAS Number	Threshold
1	HYDROCHLORIC ACID	7647-01-0	5 PPM

. . . . . End of # 44-00011 . . . . . .

12-000106 HYDROCHLORIC ACID (MURIATIC ACID) MSDS Date: 11/85
Sup/Manuf: PVS CHEM. INC. Cat: STRONG ACID
Haz/Non-Haz:H Depts: 12 Targ:
Plant:
Personal Health Code: J Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 HYDROCHLORIC ACID	7647-01-0	5 PPM

. . . . . End of # 12-00010 . . . . . .

12-000108 HYDROGEN SULFIDE GAS MSDS Date: 8/94
Sup/Manuf: ABILITY TO GENERATE GAS Cat: POISONOUS GAS
Haz/Non-Haz:H Depts: 12 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: X Indexes-> Health: 4 Fire: 1 Reactivity: 4
SARA III?: N EPA: 1 3 4 5 Experimental ?: N

Component Information	CAS Number	Threshold
1 HYDROGEN SULFIDE	7783-06-4	20 PPM

. . . . . End of # 12-00010 . . . . . .

44-000133 HYDROXY NAPHTHOL BLUE MSDS Date: 8/86
Sup/Manuf: MALLINCKRODT Cat: SALF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM CHLORIDE	7647-14-5	
2 HYDROXY NAPHTHOL BLUE	63451-35-4	

. . . . . End of # 44-00013 . . . . . .

16-120101 HYMUL 370A MSDS Date: 3/97
Sup/Manuf: HYDRITE CHEM. CO. Cat: SOLVENT
Haz/Non-Haz:H Depts: 17 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ALCOHOL ETHOXYLATES		
2 GLYCOL ETHER (15%)	111-76-2	

. . . . . End of # 16-12010 . . . . . .

04-000889 ICS 828 MSDS Date: 12/92
Sup/Manuf: ICS CORP. OF AMERICA Cat: DEGREASER
Haz/Non-Haz:N Depts: 14 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00088 . . . . . .

04-001062 ICS 828 MOD MSDS Date: 11/94
Sup/Manuf: ICS CORP. OF AMERICA Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00106 . . . . . .

60-120129 ICS 828 WD MSDS Date: 1/97
Sup/Manuf: ICS CORP. OF AMERICA Cat: NON TOXIC
Haz/Non-Haz:N Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 60-12012 . . . . . .
04-000836 IMPERON BORDEAUX K-RR MSDS Date: 11/92
Sup/Manuf: CHEMTAN CO. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y
Component Information CAS Number Threshold
1 ETHYLENE GLYCOL (19%) 107-21-1
2 UREA 57-13-6
. . . . . End of # 04-00083 . . . . . .
01-000510 IMPRANIL DLV DISPERSION MSDS Date: 6/91
Sup/Manuf: BAYER CORP. Cat: NEUTRAL SOLUTION
Haz/Non-Haz:N Depts: 21 Targ:EYE, SKIN, INGESTION
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 01-00051 . . . . . .
04-000507 INDIGOTINE (SUB) MSDS Date: 11/85
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00050 . . . . . .
04-000560 INDOSOL E-50 POWDER MSDS Date: 4/90
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00056 . . . . . .
04-000752 INDOSOL NAVY SF-BL POWDER 240 MSDS Date: 10/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
1 COPPER CPD (70.5%) 7440-50-8 1 MG/M3
3 SODIUM CARBONATE 497-19-8 NE
. . . . . End of # 04-00075 . . . . . .

11-000132 INF-1250 MSDS Date: 10/96
Sup/Manuf: INFINITY CHEMICAL Cat:
Haz/Non-Haz:H Depts: 11 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 sodium sulfite	7757-83-7	NE
2 sodium hexametaphosphate	62533-93-1	NE
3 sodium carbonate	497-19-8	ne

. . . . . End of # 11-00013 . . . . . .

11-000131 INF-1517 MSDS Date: 10/96
Sup/Manuf: INFINITY CHEMICAL Cat:
Haz/Non-Haz:H Depts: Targ:EYE
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 3 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 DIETHYLAMINOETHANOL	100-37-8	50 MG/M3

. . . . . End of # 11-00013 . . . . . .

04-000473 INODERM GREEN B MSDS Date: 5/86
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID GREEN 12	10241-21-1	NE
2 CHROMIUM CPD. (100%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00047 . . . . . .

04-000766 INODERME BLACK BC EXTRA MSDS Date: 12/89
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID BLACK 107	NE	

. . . . . End of # 04-00076 . . . . . .

04-000817 INODERME BORDEAUX BB EXTRA MSDS Date:
Sup/Manuf: ICI STAHL USA Cat:
Haz/Non-Haz: Depts: Targ:
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO INFO ON MSDS		

. . . . . End of # 04-00081 . . . . . .

04-001212 INODERME GREY NBN MSDS Date: 11/95
Sup/Manuf: STAHL USA Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00121 . . . . . .

04-000734 INTACID RHODAMINE WT POWDER MSDS Date: 10/91
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00073 . . . . . .

04-001019 INTRACHROME BLACK RPL 150% MSDS Date: 11/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD 78%	7440-47-3	

. . . . . End of # 04-00101 . . . . . .

04-000725 INTRACHROME BLACK RPL LIQ 50% MSDS Date: 1/92
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPRIETARY DYE (CR CPD 40%)	7440-47-3	0.5 MG/M3
2 CHROMIUM (2%)	7440-47-3	0.5 MG/M3
3 DIETHANOLAMINE (5%)	111-42-2	15 MG/M3
4 PROPYLENE GLYCOL	57-55-6	NE
5 ACETIC ACID	64-19-7	25 MG/M3

. . . . . End of # 04-00072 . . . . . .

19-240186 INTRACHROME ORANGE G MSDS Date: 9/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD 40%	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24018 . . . . . .

04-000516 INTRACID FLAVINE G MSDS Date: 4/90
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00051 . . . . . .

04-000563 INTRACID FLUORESCEINE MSDS Date: 2/90
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00056 . . . . . .

19-240524A INTRACID ORANGE II MSDS Date: 4/91
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 C.I.ACID ORANGE 7	633-96-5	NE

. . . . . End of # 19-24052 . . . . . .

04-000564 INTRACID RHODAMINE WT POWDER MSDS Date: 1/90
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00056 . . . . . .

04-000608 INTRACRON BLACK VS-GR MSDS Date: 3/90
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 REACTIVE BLACK DYE		

. . . . . End of # 04-00060 . . . . . .

19-240190 INTRALAN YELLOW GLS MSDS Date: 2/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM COMPOUND (52%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24019 . . . . . .

04-000800 INTRALAN BORDEAUX RLB 200% MSDS Date: 5/90
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPD. (50%)	7440-48-4	0.05 MG/M3
2 COBALT (4%)	7440-48-4	0.05 MG/M3
3 MINERAL OIL	8042-47-5	5 MG/M3

. . . . . End of # 04-00080 . . . . . .

04-000808 INTRALAN YELLOW 3RL MSDS Date: 2/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPD (35%)	7440-48-4	0.05 MG/M3

. . . . . End of # 04-00080 . . . . . .

04-001130 INTRALAN YELLOW NW 250% MSDS Date: 6/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00113 . . . . . .
04-000895 INTRALITE BRILLIANT BLUE FFRL MSDS Date: 3/91
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 DIOCTYL SODIUM SULFOSUCCINATE 577-11-7 NE
. . . . . End of # 04-00089 . . . . . .
19-240192 INTRAPEL BLUE R (INTRAZONE CYANINE BL 6B) MSDS Date: 6/91
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24019 . . . . . .
19-240193 INTRAPEL BRN HE 130% MSDS Date: 10/84
Sup/Manuf: CROMPTON & KNOWLES Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?:
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24019 . . . . . .
19-240196 INTRAPEL DK BRN CR MSDS Date: 6/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24019 . . . . . .
04-001129 INTRAPEL DK BRN G 142% MSDS Date: 6/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00112 . . . . . .

19-240197 INTRAPEL DK BRN PRL MSDS Date: 4/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD. (40%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24019 . . . . . .

19-120321 INTRASOFT OCN MSDS Date: 10/95
Sup/Manuf: CROMPTON & KNOWLES Cat: MILD ACID
Haz/Non-Haz:H Depts: 14 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (0.2%)	50-00-0	3 PPM

. . . . . End of # 19-12032 . . . . . .

04-001126 INTRAZONE CYANINE BLUE 6B MSDS Date: 9/94
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00112 . . . . . .

04-000811 INVADERM AL MSDS Date: 8/93
Sup/Manuf: TFL Cat:
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00081 . . . . . .

19-120568 INVADERM B LIQ MSDS Date: 7/93
Sup/Manuf: TFL Cat: ALKALI
Haz/Non-Haz:H Depts: 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M3

. . . . . End of # 19-12056 . . . . . .

19-120322 INVADERM LU MSDS Date: 2/94
Sup/Manuf: TFL Cat: pH NEUTRAL
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: D Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12032 . . . . . .

04-000447 INVADERM S MSDS Date: 6/93
Sup/Manuf: TFL Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: D Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00044 . . . . . .

11-000122 IODIDE IODATE REAGENT R-0699 MSDS Date: 7/93
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT/ALKALI
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 POTASSIUM IODIDE	7681-11-0	
2 POTASSIUM HYDROXIDE	1310-58-3	
3 POTASSIUM IODATE	7758-05-6	

. . . . . End of # 11-00012 . . . . . .

21-360491 IONAC PFAZ-322 MSDS Date: 2/98
Sup/Manuf: SYBRON CHEM. Cat: CROSSLINKER
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 1-AZIRI-DINEPROPANIC ACID,2-METHYL,ETC.	64265-57-2	NE

. . . . . End of # 21-36049 . . . . . .

04-000469 IRGALAN BLACK RBL 200 MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM COMPLEX DYE (77.5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00046 . . . . . .

04-000467 IRGALAN BLUE 3GL 200 MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT COMPLEX (65%)	7440-48-4	0.5 MG/M3

. . . . . End of # 04-00046 . . . . . .

04-000466 IRGALAN BORDEAUX EL 200 MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPD (62.5%)	7440-48-4	0.5 MG/M3

. . . . . End of # 04-00046 . . . . . .

04-000468 IRGALAN RED BROWN RL 200 MSDS Date: 4/88
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT COMPLEX DYE (64%)	7440-48-4	0.5 MG/M3

. . . . . End of # 04-00046 . . . . . .

04-000465 IRGALAN YELLOW 3RL-KWL 250 MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPD (57.8%)	7440-48-4	
2 TRISODIUM PHOSPHATE	76-54-9	

. . . . . End of # 04-00046 . . . . . .

04-000651 IRGAPEL C MSDS Date: 8/89
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 4 Reactivity: 1
SARA III?: EPA: 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD.	7440-47-3	

. . . . . End of # 04-00065 . . . . . .

04-000723 IRGAPEL FR LIQ MSDS Date: 10/91
Sup/Manuf: TFL Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHLORIDE	28724-32-5	NE

. . . . . End of # 04-00072 . . . . . .

44-000138 ISOBUTYRIC ACID MSDS Date: 12/79
Sup/Manuf: EASTMAN KODAK Cat: ODOROUS
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00013 . . . . . .

21-360244 ISOPROPYL ALCOHOL MSDS Date: 8/98
Sup/Manuf: UNION CARBIDE Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:SKIN
Plant:
Personal Health Code: I Indexes-> Health: 1 Fire: 3 Reactivity: 0
SARA III?: N EPA: 1 2 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ISOPROPYL ALCOHOL	67-63-0	400 PPM

. . . . . End of # 21-36024 . . . . . .

44-000140 ISOVALERIC ACID MSDS Date: 3/80
Sup/Manuf: EASTMAN KODAK Cat: ODOROUS
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00014 . . . . . .

01-000488 J737R COLORLESS FILLER MSDS Date: 7/93
Sup/Manuf: PRIME LEATHER FINISHES Cat:
Haz/Non-Haz:N Depts: 21 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00048 . . . . . .

01-000880 K 5200 FINISHING WAX MSDS Date: 11/94
Sup/Manuf: BASF Cat: WAX
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 FINISHING WAX		

. . . . . End of # 01-00088 . . . . . .

01-000339 K-0060 N GREEN PIGMENT MSDS Date: 7/90
Sup/Manuf: BASF Cat: ALKALI PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (5%)	107-21-1	50 PPM
2 CI PIGMENT GREEN 7 (CU+2 0.2%)	7440-50-8	1 MG/M3
3 PROPYLENE GLYCOL	57-55-6	NE

. . . . . End of # 01-00033 . . . . . .

01-000455 K-0087 N RED PIGMENT MSDS Date: 11/90
Sup/Manuf: BASF Cat: SOLVENT/ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (11%)	107-21-1	50 PPM

. . . . . End of # 01-00045 . . . . . .

21-360459 K-0089 N MAROON PIGMENT MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (5%)	107-21-1	50 PPM

. . . . . End of # 21-36045 . . . . . .

21-360457 K-0090 N BLUE PIGMENT MSDS Date: 11/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (5%)	107-21-1	50 PPM
2 C.I.PIGMENT BLUE 15	147-14-8	1 MG/M3
3 COPPER (1%)	7440-50-8	1 MG/M3
4 FORMALDEHYDE	50-00-0	1 PPM

. . . . . End of # 21-36045 . . . . . .

01-000580 K-1428 AQUATOP DULLER MSDS Date: 7/92
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 01-00058 . . . . . .

01-000648 K-1450 AQUATOP MSDS Date: 3/92
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 01-00064 . . . . . .

01-000647 K-1455 UCOTHANE MSDS Date: 3/92
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 01-00064 . . . . . .

01-000364 K-2000 AQUATOP MSDS Date: 5/90
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL	57-55-6	NE
2 N-METHYL PYRROLIDONE	872-50-4	NE
3 2-PROPOXYETHANOL (6%)	2807-30-9	NE

. . . . . End of # 01-00036 . . . . . .

01-000632 K-2010 UCOTHANE MSDS Date: 5/90
Sup/Manuf: BASF Cat: RESIN
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 01-00063 . . . . . .

01-000417 K-2030 UCOTHANE RESIN MSDS Date: 7/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-ETHYLMORPHOLINE	100-74-3	5 PPM

. . . . . End of # 01-00041 . . . . . .

21-360446 K-2040 UCOTHANE MSDS Date: 9/91
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TRIETHYLAMINE	121-44-8	25 PPM
2 N-METHYL PYRROLIDONE	872-50-4	10 PPM

. . . . . End of # 21-36044 . . . . . .

01-000465 K-2050 UCOTHANE MSDS Date: 11/91
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 01-00046 . . . . . .

01-000425 K-4177 RUBINE NR MSDS Date: 2/92
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:N Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 01-00042 . . . . . .

01-000395 K-4373 LIGHT BROWN NR MSDS Date: 11/90
Sup/Manuf: BASF Cat: PIGMENT-ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIUM HYDROXIDE	1336-21-6	25 PPM
2 SODIUM O-PHENYLPHENOL	132-27-4	NE

. . . . . End of # 01-00039 . . . . . .

21-360458 K-4375 CARAMEL NR MSDS Date: 7/90
Sup/Manuf: BASF Cat: PIGMENT-ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIUM HYDROXIDE	1336-21-5	25 PPM
2 SODIUM O-PHENYLPHENOL	132-27-4	NE

. . . . . End of # 21-36045 . . . . . .

01-000428 K-4378 DARK BROWN NR MSDS Date: 11/90
Sup/Manuf: BASF Cat: ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIUM HYDROXIDE	1336-21-5	25 PPM
2 SODIUM O-PHENYLPHENOL	132-27-4	NE

. . . . . End of # 01-00042 . . . . . .

04-001054 KEP-DRI HO-3 MSDS Date: 5/96
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00105 . . . . . .

21-360108 KEPECO 620 OIL MSDS Date: 5/88
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 21-36010 . . . . . .

13-000157B KEROSENE (DEODERIZED) MSDS Date: 5/97
Sup/Manuf: BAKER CHEM. CO.(JT) Cat:
Haz/Non-Haz:H Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: N EPA: 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 KEROSENE	8008-20-6	

. . . . . End of # 13-00015 . . . . . .

13-000157A KEROSENE K-1 (TOTAL) MSDS Date: 2/91
Sup/Manuf: TOTAL PETROLEUM Cat:
Haz/Non-Haz:H Depts: 13 Targ:LUNG, SKIN, KIDNEY
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 KEROSENE	8008-20-6	100 MG/M3

. . . . . End of # 13-00015 . . . . . .

19-240523 KEYACID BLACK CONC 126 MSDS Date: 11/90
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24052 . . . . . .

04-000508 KEYACID BLUE FG MSDS Date: 12/89
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00050 . . . . . .

19-240562 KEYACID ORANGE 2G MSDS Date: 4/97
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?:

Component Information	CAS Number	Threshold
1 C.I.ACID ORANGE 10	1936-15-8	NE

. . . . . End of # 19-24056 . . . . . .

19-240524 KEYACID ORANGE II MSDS Date: 9/96
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE,LUNG,SKIN,RESP,LIV
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 C.I.ACID ORANGE 7	633-96-5	NE
2 SODIUM SULFATE	7757-82-6	
3 SODIUM CHLORIDE	7647-14-5	

. . . . . End of # 19-24052 . . . . . .

19-240521 KEYACID RED B MSDS Date: 9/98
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24052 . . . . . .

04-000633 KEYAMINE BLACK JX-NB MSDS Date: 3/90
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.DIRECT BLACK 19	6248-31-5	NE
2 C.I.DIRECT BLACK 9	8003-62-1	NE
3 C.I.DIRECT RED 99	6837-87-2	NE

. . . . . End of # 04-00063 . . . . . .

04-000941 KEYAMINE BLACK JX-NT MSDS Date: 11/93
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPRIETARY		

. . . . . End of # 04-00094 . . . . . .

04-000759 KEYAMINE GREEN BX-NB MSDS Date: 11/85
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00075 . . . . . .

19-240487 KEYSTONE LEATHER DARK BROWN DC MSDS Date: 1/89
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SULFITE	7757-83-7	5 MG/M3

. . . . . End of # 19-24048 . . . . . .

19-240590 KEYSTONE LEATHER SCARLET MOO MSDS Date: 7/97
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE,RESP,SKN,STOMACH,I
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 C.I.DIRECT RED 23	3441-4-3	NE

. . . . . End of # 19-24059 . . . . . .

19-240441A KEYSTONE NIGROSINE WSB CYRSTALS MSDS Date: 1/96
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 CI ACID BLACK 2	8005-03-6	NE

. . . . . End of # 19-24044 . . . . . .

01-000504 KM-101869 MSDS Date: 10/93
Sup/Manuf: STAHL FINISH Cat: SOLVNET
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 XYLENE (4%)	1330-20-7	100 PPM
2 GLYCOL ETHER PMA	108-65-6	NE

. . . . . End of # 01-00050 . . . . . .

04-000540 KORANTIN SH MSDS Date: 2/91
Sup/Manuf: BASF Cat: IRRITANT
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00054 . . . . . .

04-000057 KROMATON BLACK H MSDS Date: 10/95
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00005 . . . . . .

04-000056 KROMATON DARK TAN MSDS Date: 10/95
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:H Depts: Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DISODIUM TETRABORATE DECAHYDRATE		

. . . . . End of # 04-00005 . . . . . .

13-000101 L-0002 CEMENT MSDS Date: 12/90
Sup/Manuf: LA-CO INDUSTRIES Cat:
Haz/Non-Haz:N Depts: 13 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00010 . . . . . .

04-001208 L-1 MSDS Date: 7/94
Sup/Manuf: WESTVACO CHEM DIV. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALL OIL FATTY ACID	61790-12-3	

. . . . . End of # 04-00120 . . . . . .

04-000070 L-14588 (SCOTCHGARD) MSDS Date: 12/96
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 FLUOROCHEMICAL ESTER		
2 ETHYLENE GLYCOL (8%)	107-21-1	
3 SURFACTANTS	9005-65-6	
4 ETHYL ACETATE	141-78-6	

. . . . . End of # 04-00007 . . . . . .

04-000071 L-15105 (SCOTCHGARD) MSDS Date: 2/98
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 FLUOROCHEMICAL ACRYLATE		
2 2-METHOXYMETHYLETHOXYPROPANOL	34590-94-8	

. . . . . End of # 04-00007 . . . . . .

01-000895 LA-1610 MSDS Date: 2/97
Sup/Manuf: STAHL USA Cat: SOLVENT BLEND
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHANOL	64-17-5	
2 DIOCTYL SODIUM SULFOCUSSINATE	577-11-7	
3 ETHYLENE GLYCOL (17.5%)	107-21-1	

. . . . . End of # 01-00089 . . . . . .

04-000376 LANASYN BLACK BGL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (<100%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00037 . . . . . .

04-000377 LANASYN BLACK BGL POWDER 200 MSDS Date: 5/59
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (83.8%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00037 . . . . . .

04-000375 LANASYN BLACK BRL POWDER MSDS Date: 5/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (52.5%)	7440-47-3	0.5MG/M3

. . . . . End of # 04-00037 . . . . . .

04-000398 LANASYN BLACK BRL POWDER 200 MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (4.9%) (DYE MOLECULE)	7440-47-3	0.5 MG/M3
2 CHROMIUM COMPOUND (100%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00039 . . . . . .

04-000393 LANASYN BLACK S-DL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM COMPOUND (<89%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00039 . . . . . .

04-000371 LANASYN BLACK S-GL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (5%) (DYE MOLECULE)	7440-47-3	0.5 MG/M3
2 CHROMIUM COMPOUND (90%)	7440-47-3	
3 N-PHENYL-BETA-NAPHTHYLAMINE	135-88-6	NE

. . . . . End of # 04-00037 . . . . . .

04-000372 LANASYN BLACK S-RL POWDER 080 MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (4%)	7440-47-3	0.5 MG/M3
2 COBALT CPD. (65%)	7440-47-3	0.5 MG/M3
3 N-PHENYL-BETA-NAPHTHYLAMINE	135-88-6	NE

. . . . . End of # 04-00037 . . . . . .

04-000378 LANASYN BORDEAUX RL POWDER 200 MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT (100%)	7440-48-4	0.05 MG/M3

. . . . . End of # 04-00037 . . . . . .

04-000383 LANASYN CARBON BL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (5%) (DYE MOLECULE)	7440-47-3	0.5 MG/M3
2 CHROMIUM COMPOUND	7440-47-3	
3 STARCH	9005-25-8	5 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000390 LANASYN DARK BROWN S-BL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (95%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00039 . . . . . .

04-000388 LANASYN DARK BROWN S-GL POWDER 080 MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (63%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000389 LANASYN DARK BROWN S-GL POWDER 125 MSDS Date: 6/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (74%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000379 LANASYN DARK VIOLET RL POWDER 300 MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (36%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00037 . . . . . .

04-000385 LANASYN GREY BLR POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (36%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000391 LANASYN NAVY S-BL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (44%) (DYE MOLECULE)	7440-47-3	0.5 MG/M3
2 CHROMIUM COMPOUND (75%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00039 . . . . . .

04-000384 LANASYN OLIVE S-4GLN POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT (1%) (DYE MOLECULE)	7440-48-4	0.05 MG/M3
2 STARCH	9005-25-8	5 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000397 LANASYN ORANGE S-RL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (4%)	7440-47-3	0.5MG/M3
2 CHROMIUM CPD. (80%)	7440-47-3	0.5MG/M3

. . . . . End of # 04-00039 . . . . . .

04-000381 LANASYN RED 2GLN POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (53%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000380 LANASYN RED S-G POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (100%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000382 LANASYN RUBINE S-5BL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT (95%)	7440-48-4	0.05 MG/M3
2 STARCH	9005-25-8	5 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000386 LANASYN YELLOW 2 GLN POWDER 250 MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM (80%)	7440-47-3	0.5 MG/M3
2 ISOOCTYL ALCOHOL	26952-21-6	50 PPM

. . . . . End of # 04-00038 . . . . . .

04-000387 LANASYN YELLOW 2RL POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT (42%)	7440-48-4	0.05 MG/M3

. . . . . End of # 04-00038 . . . . . .

04-000392 LANASYN YELLOW LNW POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT (5%) (DYE MOLECULE)	7440-48-4	0.05 MG/M3
2 COBALT COMPOUND (30%)	7440-48-4	0.05 MG/M3

. . . . . End of # 04-00039 . . . . . .

04-000396 LANASYN YELLOW LNW POWDER 250 MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT (5%) (DYE MOLECULE)	7440-48-4	0.05 MG/M3
2 COBALT COMPOUND (70%)	7440-48-4	0.05 MG/M3

. . . . . End of # 04-00039 . . . . . .

04-000374 LANASYN YELLOW S-2GL LIQUID MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT COMPOUND (100%)	7440-48-4	

. . . . . End of # 04-00037 . . . . . .

04-000150 LAVORAL S-312 MSDS Date: 1/86
Sup/Manuf: TFL Cat: POLYMER
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00015 . . . . . .

44-000114 LEAD ACETATE TEST PAPER MSDS Date: 10/88
Sup/Manuf: PRECISION LABORATORIES Cat: POISONOUS
Haz/Non-Haz:H Depts: 12 14 Targ:INGESTION
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: N EPA: 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 LEAD ACETATE	301-04-2	

. . . . . End of # 44-00011 . . . . . .

04-000713 LEATHER BEIGE LD MSDS Date: 7/91
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF-EXP CARCI
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 SILICA, CRYSTALLINE QUARTZ (0.5%)	14808-60-7	0.1 MG/M3
3 TITANIUM DIOXIDE	13463-67-7	10 MG/M3
4 ACID BROWN 189		NE
5 SODIUM SULFATE	7767-82-6	NE

. . . . . End of # 04-00071 . . . . . .

04-000285 LEATHER BLACK C LIQUID MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACETIC ACID	64-19-7	10 PPM

. . . . . End of # 04-00028 . . . . . .

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04-000745  LEATHER BLACK NB/RM LIQUID                MSDS Date:  3/92
Sup/Manuf: BASF                                  Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                   Targ:
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: N  EPA:          Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  SODIUM BISULFITE                          7631-90-5    5 MG/M3
. . . . . . . . . . . . End of # 04-00074 . . . . . . . . . . . . . . . . .
04-000816  LEATHER BLACK ND                          MSDS Date:
Sup/Manuf: ICI STAHL USA                         Cat:
Haz/Non-Haz:   Depts:                       Targ:
               Plant:
Personal Health Code:    Indexes-> Health:    Fire:    Reactivity:
SARA III?:    EPA:          Experimental ?:
   Component Information                     CAS Number   Threshold
   NO INFO ON MSDS
. . . . . . . . . . . . End of # 04-00081 . . . . . . . . . . . . . . . . .
04-000619  LEATHER BLACK RHS 200                     MSDS Date:  4/91
Sup/Manuf: TFL                                   Cat: DYESTUFF
Haz/Non-Haz:H  Depts:                       Targ:EYE, LUNG, SKIN,INGEST
               Plant:
Personal Health Code: E  Indexes-> Health: 2  Fire: 1  Reactivity: 0
SARA III?: N  EPA: 1 2      Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  NOT IDENTIFIED;MAY BREAK DOWN IN THE
2  BODY TO A CANCER PRODUCING SUBSTANCE
. . . . . . . . . . . . End of # 04-00061 . . . . . . . . . . . . . . . . .
04-000174  LEATHER BLACK RW                          MSDS Date: 11/85
Sup/Manuf: KEYSTONE ANILINE CORP.                Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                   Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 2  Fire: 0  Reactivity: 1
SARA III?:    EPA:          Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  SODIUM BISULFITE                          7631-90-5    5 MG/M3
. . . . . . . . . . . . End of # 04-00017 . . . . . . . . . . . . . . . . .
04-000336  LEATHER BLACK VM LIQUID                   MSDS Date:  4/89
Sup/Manuf: BASF                                  Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                   Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 1
SARA III?: N  EPA:          Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  ACETIC ACID                               64-19-7      10 PPM
. . . . . . . . . . . . End of # 04-00033 . . . . . . . . . . . . . . . . .
04-000031  LEATHER BLACK WA                          MSDS Date:  5/97
Sup/Manuf: BASF                                  Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                   Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: Y  EPA: 1        Experimental ?:
   Component Information                     CAS Number   Threshold
1  CHROMIUM CPD. (80%)                       7440-47-3    0.5 MG/M3
. . . . . . . . . . . . End of # 04-00003 . . . . . . . . . . . . . . . . .
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19-240599 LEATHER BLUE BN 300% MSDS Date: 10/91
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24059 . . . . . .

04-000073 LEATHER BORDEAUX SB MSDS Date: 8/97
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM SULFITE	7631-90-5	NE

. . . . . End of # 04-00007 . . . . . .

19-240554 LEATHER BRILLIANT GREEN 2G MSDS Date: 1/89
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM BISULFITE	7631-90-5	5 MG/M3

. . . . . End of # 19-24055 . . . . . .

04-000881 LEATHER BROWN GB MSDS Date: 11/92
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00088 . . . . . .

04-000168 LEATHER BROWN GR MSDS Date: 1/89
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM BISULFITE	7631-90-5	5 MG/M3

. . . . . End of # 04-00016 . . . . . .

04-000743 LEATHER BROWN MBN MSDS Date: 7/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00074 . . . . . .

04-000166 LEATHER DARK BLUE LD 300% MSDS Date: 11/85
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM BISULFITE	7631-90-5	5 MG/M3
1 SODIUM SULFITE	7757-83-7	5 MG/M3

. . . . . End of # 04-00052 . . . . . .

04-000169 LEATHER DARK BROWN LG MSDS Date: 11/85
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM BISULFITE	7631-90-5	5 MG/M3

. . . . . End of # 04-00016 . . . . . .

04-000407 LEATHER FAST DARK BROWN LG MSDS Date: 1/89
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SULFITE	7757-83-7	NE

. . . . . End of # 04-00040 . . . . . .

04-000744 LEATHER GREEN NB-B MSDS Date: 1/92
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPRIETARY		NE

. . . . . End of # 04-00074 . . . . . .

19-240545 LEATHER GREEN SBF 200 MSDS Date: 1/89
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM SULFITE	7757-83-7	5 MG/M3

. . . . . End of # 19-24054 . . . . . .

44-000141 LEATHER MULLING AGENT #3 MSDS Date: 2/87
Sup/Manuf: WOLVERINE LEATHERS Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00014 . . . . . .

04-000069 LEATHER NAVY JRB MSDS Date: 2/90
Sup/Manuf: STAHL USA Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENT		

. . . . . End of # 04-00006 . . . . . .

04-000742 LEATHER NAVY NB-G MSDS Date: 12/92
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (0.1%)	50-00-0	1 PPM
2 SODIUM BISULFITE	7631-90-5	5 MG/M3

. . . . . End of # 04-00074 . . . . . .

04-000343 LEATHER ORANGE 5G MSDS Date: 1/89
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM SULFITE	7757-83-7	NE

. . . . . End of # 04-00034 . . . . . .

04-000596 LEATHER ORANGE K-3GL LIQUID MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00059 . . . . . .

04-000597 LEATHER RED K-2BN LIQUID MSDS Date: 4/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: H Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACETIC ACID	64-19-7	10 PPM
2 DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	NE

. . . . . End of # 04-00059 . . . . . .

04-000173 LEATHER RED SW MSDS Date: 11/85
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIUM THIOSULFATE	10103-43-2	NE

. . . . . End of # 04-00017 . . . . . .

19-240546 LEATHER SKY BLUE BG MSDS Date: 1/89
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SULFITE	7757-83-7	5 MG/M3

. . . . . End of # 19-24054 . . . . . .

04-000139 LEATHER YELLOW RS MSDS Date: 2/92
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM SULFITE		

. . . . . End of # 04-00013 . . . . . .

04-000777 LEUKOTAN 1084 TANNING AGENT MSDS Date: 8/90
Sup/Manuf: ROHM & HAAS Cat: MILD ACIDIC
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00077 . . . . . .

07-000127 LEUKOTAN 974 TANNING AGENT MSDS Date: 8/90
Sup/Manuf: ROHM & HAAS Cat: MILD ACIDIC
Haz/Non-Haz:N Depts: 17 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACRYLIC POLYMER	NON-HAZ	

. . . . . End of # 07-00012 . . . . . .

19-120449B LEUKOTAN FW-46N MSDS Date: 6/96
Sup/Manuf: ROHM & HAAS Cat:
Haz/Non-Haz:N Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12044 . . . . . .

19-120449 LEUKOTAN FW-96 MSDS Date: 9/97
Sup/Manuf: ROHM & HAAS Cat: MILD ALKALI
Haz/Non-Haz:N Depts: 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12044 . . . . . .

60-120105 LEUKOTAN MB MSDS Date: 3/93
Sup/Manuf: ROHM & HAAS Cat: ALKALI/SALT
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SALT OF POLYMERIC CARBOXYLIC ACID	NON HAZ	NONE
2 INDIVIDUAL RESIDUAL MONOMERS	NOT REQ	NONE
3 WATER	7732-18-5	NONE

. . . . . End of # 60-12010 . . . . . .

01-000451 LEVELLER WT MSDS Date: 11/91
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 2-BUTOXYETHANOL (5.5%)	111-76-2	50 PPM
2 WATER	7732-18-5	NONE
3 NH4 PERFLUOROALKYL SULFON	67906-42-7	NE

. . . . . End of # 01-00045 . . . . . .

04-000020 LEVOFAST DARK BROWN GRW MSDS Date: 4/97
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz: Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: F Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID BROWN 282	104972-40-9	NE

. . . . . End of # 04-00002 . . . . . .

04-000939 LEVOL BLACK NT MSDS Date: 10/91
Sup/Manuf: KEYSTONE ANILINE CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00093 . . . . . .

04-000772 LEVOL BLACK TN MSDS Date: 3/93
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00077 . . . . . .

04-000003 LEVOL OLIVE MBGL 125% MSDS Date: 8/98
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz: Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00000 . . . . . .

19-240593 LEVOLFAST BROWN MFR MSDS Date: 6/94
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24059 . . . . . .
19-240600 LEVOLFAST VIOLET F 200% MSDS Date: 12/96
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24060 . . . . . .
04-000193 LIMANOL PE MSDS Date: 2/88
Sup/Manuf: STRUKTOL CO. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00019 . . . . . .
12-000109 LIME (CALCIUM HYDROXIDE) MSDS Date: 2/93
Sup/Manuf: MARBLEHEAD LIME CO. Cat: ALKALI
Haz/Non-Haz:H Depts: 12 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
1 CALCIUM HYDROXIDE 1305-62-0 5 MG/M3
. . . . . End of # 12-00010 . . . . . .
12-000132 LIME SLURRY (CALCIUM HYDROXIDE) MSDS Date: 4/88
Sup/Manuf: LIME SPECIALTIES INC. Cat: ALKALI
Haz/Non-Haz:H Depts: 12 Targ:
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
1 CALCIUM HYDROXIDE 1305-62-0
. . . . . End of # 12-00013 . . . . . .
04-000537 LIONTAN HXC MSDS Date: 1/88
Sup/Manuf: TANNIN CORPORATION Cat: POWDER
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00053 . . . . . .

17-120152 LIONTAN SLP 1 MSDS Date: 1/99
Sup/Manuf: TANNIN CORPORATION Cat: FINE POWDER
Haz/Non-Haz:N Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INFORMATION		

. . . . . End of # 17-12015 . . . . . .

04-000644 LIPODERM LIQUOR CM MSDS Date: 10/90
Sup/Manuf: BASF Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ISOPROPYL ALCOHOL	67-63-0	400 PPM
2 BUTYL CARBITOL (10%)	112-34-5	NE

. . . . . End of # 04-00064 . . . . . .

04-000738 LIPODERM LIQUOR SLW MSDS Date: 12/94
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 1-METHOXY-2-PROPANOL	107-98-2	100 PPM
2 PARAFFIN OILS	8012-95-1	5 MG/M3
3 DIPROPYLENE GLYCOL	25265-71-8	NE

. . . . . End of # 04-00073 . . . . . .

19-120586 LIPODERM OIL SK MSDS Date: 12/94
Sup/Manuf: BASF Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 CHLOROPARAFFIN WAXES	63449-39-8	

. . . . . End of # 19-12058 . . . . . .

19-120327 LIPOLIN A MSDS Date: 3/90
Sup/Manuf: BASF Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 19 Targ:EYE, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M3

. . . . . End of # 19-12032 . . . . . .

04-000011 LIPSOL ES MSDS Date: 6/94
Sup/Manuf: SCHILL & SEILACHER Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00001 . . . . . .

04-000519 LIPSOL S MSDS Date: 11/85
Sup/Manuf: STRUKTOL CO. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00051 . . . . . .

04-000009 LIPSOL SQ MSDS Date: 11/93
Sup/Manuf: SCHILL & SEILACHER Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO INFORMATION REPORTED		

. . . . . End of # 04-00000 . . . . . .

19-120328C LIQUICHLOR BLEACH MSDS Date: 10/89
Sup/Manuf: CARDINAL CHEMICAL CORP. Cat: ALKALI
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 1
SARA III?: EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYPOCHLORITE	7681-52-9	NE

. . . . . End of # 19-12032 . . . . . .

04-000942 LISPOL LX MSDS Date: 3/90
Sup/Manuf: STRUKTOL CO. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00094 . . . . . .

11-000105 LONG RANGE INDICATOR R-1003U MSDS Date: 8/93
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT
Haz/Non-Haz:H Depts: 11 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 3 Reactivity: 0
SARA III?: N EPA: 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ISOPROPYL ALCOHOL	67-63-0	
2 PHENOLPHTHALEIN	77-09-8	
3 METHYL RED	845-10-3	
4 META-CRESOL PURPLE	2303-01-7	
5 BROMTHYMOL BLUE	34722-90-2	

. . . . . End of # 11-00010 . . . . . .

04-001215 LOWAPEL OLIVE GREEN D K MSDS Date: 11/91
Sup/Manuf: LOWENSTEIN & SONS, INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: J Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD. 6% (CR 1%)	7440-47-3	.05 MG/M3

. . . . . End of # 04-00121 . . . . . .

13-000162 LUBRICONE II MSDS Date: 5/96
Sup/Manuf: PREMIER INDUSTRIAL Cat:
Haz/Non-Haz:H Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 4 Reactivity: 1
SARA III?: N EPA: 1 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 MINERAL SPIRITS	64742-48-9	NE
2 N-BUTANE	106-97-8	
3 PROPANE	74-98-6	

. . . . . End of # 13-00016 . . . . . .

07-000001 LUBRITAN SP ACRYLIC RETAN MSDS Date: 2/95
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:N Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 07-00000 . . . . . .

04-000912 LUBRITAN TG ACRYLIC RETAN MSDS Date: 6/96
Sup/Manuf: ROHM & HAAS Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00091 . . . . . .

19-120499 LUBRITAN WP MSDS Date: 6/92
Sup/Manuf: BAYER CORP. Cat: SOLVENT/BASE
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG, KIDNEYS, LIVER
Plant:
Personal Health Code: G Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ACRYLIC POLYMER	NON-HAZ	NONE
2 INDIVIDUAL RESIDUAL MONOMERS	NOT REQ.	N/R
3 ETHYLENE GLYCOL MONOBUTYL ETHER (19%)	111-76-2	10 PPM
4 WATER	7732-18-5	NONE

. . . . . End of # 19-12049 . . . . . .

04-000786 LUBRITAN WP,BPS,EXP MSDS Date: 2/92
Sup/Manuf: ROHM & HAAS Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 1-BUTOXY-2-PROPANOL (19%)	5131-66-8	NE

. . . . . End of # 04-00078 . . . . . .

04-000737 LUBRITAN WP,PTB,EXP. MSDS Date: 1/92
Sup/Manuf: ROHM & HAAS Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACRYLIC POLYMER	NOT HAZ.	
2 PROPYLENE GLYCOL T-BUTYL ETHER (19%)	57018-52-7	NE
3 WATER	7732-18-5	NONE
4 INDIVIDUAL RESIDUAL MONOMERS	NOT REG.	NE

04-000737 LUBRITAN WP,PTB,EXP. MSDS Date: 1/92
Sup/Manuf: ROHM & HAAS Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: Y

Component Information	CAS Number	Threshold

. . . . . End of # 04-00073 . . . . . .

04-000117 LUDOX COLLOIDAL SILICA AS/HM40/AM MSDS Date: 4/88
Sup/Manuf: DUPONT Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SILICON DIOXIDE	7631-86-9	

. . . . . End of # 04-00011 . . . . . .

04-001218 LUGANIL BLACK CN MSDS Date: 6/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM SALICYLATE	54-21-7	NE
2 DISODIUM OXALATE	62-76-0	NE
3 SODIUM FORMATE	141-53-7	NE
4 PARAFFFIN OILS	8012-95-1	
5 SODIUM SULFATE	7757-82-6	NE
6 CHROMIUM CPD. (52.4%) (CR 2.7%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00121 . . . . . .

19-240211 LUGANIL BLACK NT MSDS Date: 12/94
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 CI ACID RED 310		1 MG/M3
2 COPPER DYE (CU 1%; 0.2%)	7440-50-8	1 MG/M3
3 POTASSIUM CHLORIDE	7447-40-7	NE
4 SODIUM SULFATE	7757-82-6	NE

. . . . . End of # 19-24021 . . . . . .

04-000581 LUGANIL BLACK SL LIQ. MSDS Date: 3/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID BLACK 52 (CR+3=1.6%)	7440-47-3	0.5 MG/M3
2 BUTYL CARBITOL (4%)	112-34-5	NE

. . . . . End of # 04-00058 . . . . . .

04-000580 LUGANIL BLACK TS LIQ. MSDS Date: 3/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

04-000580 LUGANIL BLACK TS LIQ. MSDS Date: 3/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold

. . . . . End of # 04-00058 . . . . . .

04-000643 LUGANIL BLUE MRB LIQUID MSDS Date: 12/91
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 BUTYL CARBITOL (15%)	112-34-5	20 PPM
2 CI ACID BLUE 193 (CR+3 1.5%)	7440-47-3	0.5 MG/M3
3 AMMONIUM ACETATE	631-61-8	NE

. . . . . End of # 04-00064 . . . . . .

04-000569 LUGANIL BLUE NB-8L LIQUID MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00056 . . . . . .

19-240212 LUGANIL BLUE NGR MSDS Date: 6/86
Sup/Manuf: BASF Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24021 . . . . . .

19-240213 LUGANIL BLUE NL MSDS Date: 12/94
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PARAFFIN OILS	8012-95-1	5 MG/M3
2 COPPER CPD (4%)	7440-50-8	1 MG/M3

. . . . . End of # 19-24021 . . . . . .

04-000613 LUGANIL BORDEAUX B MSDS Date: 3/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
3 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00061 . . . . . .

04-000584 LUGANIL BORDEAUX RB LIQ. MSDS Date: 2/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 BUTYL CARBITOL (20%)	112-34-5	NE
2 TRIETHYLENE GLYCOL (20%)	112-27-6	NE
3 CI ACID VIOLET 90 (CR+3 1.5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00058 . . . . . .

04-000421 LUGANIL BROWN BL LIQUID MSDS Date: 10/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID ORANGE 335 (CR+3 2%)	7440-47-3	0.5 MG/M3
2 BUTYL CARBITOL (20%)	112-34-5	20 PPM

. . . . . End of # 04-00042 . . . . . .

04-000724 LUGANIL BROWN DL LIQ MSDS Date: 3/91
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00072 . . . . . .

19-240214 LUGANIL BROWN GOL MSDS Date: 2/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 COBALT +2 (5%)	7440-48-4	0.1 MG/M3
2 C.I.ACID BROWN 422		0.05 MG/M3

. . . . . End of # 19-24021 . . . . . .

19-240482 LUGANIL BROWN MFR MSDS Date: 12/94
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 CI ACID BR 97		1 MG/M3
2 COPPER CPD (60%; Cu 6.5%)	7440-50-8	1 MG/M3
3 SODIUM SULFATE	7757-82-6	

. . . . . End of # 19-24048 . . . . . .

04-000841 LUGANIL BROWN MFR LIQUID MSDS Date: 8/91
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID BROWN 97		NE

. . . . . End of # 04-00084 . . . . . .

04-001066 LUGANIL BROWN NA MSDS Date: 6/90
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00106 . . . . . .

04-000223 LUGANIL BROWN NB-R MSDS Date: 7/85
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00022 . . . . . .

19-240557 LUGANIL BROWN NG MSDS Date: 3/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 19-24055 . . . . . .

19-240216 LUGANIL BROWN NGB MSDS Date: 12/94
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PARAFFIN OILS	8012-95-1	5 MG/M3
2 COPPER CPD (41%)	7440-50-8	5 MG/M3
3 SODA ASH	497-19-8	
4 SODIUM CHLORIDE	7647-14-5	
5 SODIUM SULFATE	7757-82-6	

. . . . . End of # 19-24021 . . . . . .

04-000224 LUGANIL BROWN NGR MSDS Date: 3/86
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00022 . . . . . .

19-240221 LUGANIL BROWN NT MSDS Date: 3/95
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24022 . . . . . .

04-000518 LUGANIL BROWN RL MSDS Date: 1/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00051 . . . . . .

04-000802 LUGANIL DARK BLUE NB MSDS Date: 2/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00080 . . . . . .

04-000678 LUGANIL DARK BROWN B MSDS Date: 11/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00067 . . . . . .

19-240547 LUGANIL DARK GREEN N MSDS Date: 2/98
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SULFATE	7757-82-6	NE
2 CI ACID GREEN 68:1	NE	NE

. . . . . End of # 19-24054 . . . . . .

19-240218 LUGANIL GREEN NG MSDS Date: 4/97
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 COPPER CPDS (92%)	7440-50-8	1MG/M3

. . . . . End of # 19-24021 . . . . . .

04-000587 LUGANIL MRB LIQ. MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 BUTYL CARBITOL (15%)	112-34-5	20 PPM
2 CI ACID BLUE 193 (CR+3 1.5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00058 . . . . . .

19-240488 LUGANIL OLIVE MBGL (NYLITON OLIVE..) MSDS Date: 4/97
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 COBALT CPD (80%; CO 0.9%)	7440-48-4	0.1 MG/M3

. . . . . End of # 19-24048 . . . . . .

04-000585 LUGANIL ORANGE 2R LIQ. MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 BUTYL CARBITOL (16%)	112-34-5	20 PPM
2 CI ACID ORANGE 142 (CR+3 1.5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00058 . . . . . .

04-000566 LUGANIL ORANGE NB-8R LIQUID MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00056 . . . . . .

19-240219 LUGANIL ORANGE NG MSDS Date: 2/98
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SULFATE	7757-82-6	NE
2 CI ACID ORANGE 78	NE	NE

. . . . . End of # 19-24021 . . . . . .

19-240561 LUGANIL ORANGE NR MSDS Date: 4/97
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 PARAFFIN OILS	8012-95-1	5 MG/M3
2 CHROMIUN CPD (5%)	7440-47-3	0.5MG/M3

. . . . . End of # 19-24056 . . . . . .

04-000283 LUGANIL RED GL LIQUID MSDS Date: 10/88
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 BUTYL CARBITOL (20%)	112-34-5	20 PPM
2 CI ACID ACID RED 357 (CR+3 2%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00028 . . . . . .

04-000568 LUGANIL RED NB-4Y LIQUID MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00056 . . . . . .

04-000572 LUGANIL RUBINE NB-9R LIQUID MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00057 . . . . . .

04-000586 LUGANIL YELLOW BROWN CL LIG. MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	BUTYL CARBITOL (25%)	112-34-5	20 PPM
2	CI ACID YELLOW 194 (CR+3 1/5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00058 . . . . . .

19-240572 LUGANIL YELLOW G MSDS Date: 12/94
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	DEXTRIN	9004-53-9	NE
2	CI ACID YELLOW 42	NE	NE

. . . . . End of # 19-24057 . . . . . .

04-000570 LUGANIL YELLOW NB-6Y LIQUID MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	DIETHANOLAMINE (10%)	111-42-2	3 PPM

. . . . . End of # 04-00057 . . . . . .

04-000567 LUGANIL YELLOW NB-7G LUQUID MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	N,N-DIETHYLETHANOLAMINE	100-37-8	10 PPM
2	NEOPENTYL GLYCOL	126-30-7	NE

. . . . . End of # 04-00056 . . . . . .

04-000571 LUGANIL YELLOW NB-7R LIQUID MSDS Date: 6/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIETHANOLAMINE (15%)	111-42-2	3 PPM

. . . . . End of # 04-00057 . . . . . .

04-000717 LURAZOL BEIGE L MSDS Date: 2/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID ORANGE 61 (0.2% CR+3)	7440-47-3	0.5 MG/M3
2 C.I.ACID ORANGE 74 (0.5% CR+3)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00071 . . . . . .

04-001048 LURAZOL BEIGE LF MSDS Date: 2/95
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM CHLORIDE	7647-14-5	
2 SODIUM SULFATE	7757-82-6	
3 CI ACID ORANGE 61	TRADE SECRET	
4 CI ACID ORANGE 74	TRADE SECRET	
5 CHROMIUM CPD. (0.6%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00104 . . . . . .

04-000794 LURAZOL BEIGE NB-J LIQUID MSDS Date: 4/92
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 BUTYL CARBITOL (4%)	112-34-5	20 PPM
2 C.I.ACID ORANGE 142 (0.1% CR)		0.5 MG/M3

. . . . . End of # 04-00079 . . . . . .

04-001217 LURAZOL BLACK DFN MSDS Date: 11/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00121 . . . . . .

04-000579 LURAZOL BLACK NB-AD LIQ. MSDS Date: 3/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 UREA	57-13-6	NE

. . . . . End of # 04-00057 . . . . . .

04-000409 LURAZOL BLACK NB-RS LIQUID MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	BUTYL CARBITOL (2%)	112-34-5	20 PPM
2	CI ACID BLACK 52,(CR+3= 0.5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00040 . . . . . .

04-000904 LURAZOL BLACK P LIQUID MSDS Date: 9/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CARBON BLACK	1333-86-4	3.5 MG/M3
2	DIPROPYLENE GLYCOL	25265-71-8	NE
3	OXIRANE POLYMER		NE

. . . . . End of # 04-00090 . . . . . .

04-001226 LURAZOL BLUE P LIQUID MSDS Date: 3/97
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	COPPER CPD. (45%) (CU 5%)	7440-50-8	1 MG/M3
2	DIPROPYLENE GLYCOL	25265-71-8	NE
3	POLYMER		NE
4	ETHOXYLATED ALCOHOL	68920-66-1	NE

. . . . . End of # 04-00122 . . . . . .

19-240215 LURAZOL BROWN N3G MSDS Date: 2/12
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

	Component Information	CAS Number	Threshold
1	SODIUM CHLORIDE	7647-14-5	NE
2	SODIUM SULFATE	7757-82-6	NE
3	CHROMIUM CPD. (16.2%) (CR 1.2%)	7440-47-3	0.5 MG/M3
4	COPPER CPD. (7.5%) (CU 0.8%)	7440-50-8	1 MG/M3

. . . . . End of # 19-24021 . . . . . .

04-000542 LURAZOL DARK BLUE EB MSDS Date: 12/89
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00054 . . . . . .

04-001228 LURAZOL DARK BROWN P LIQUID MSDS Date: 1/97
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CI PIGMENT RED 101	1309-37-1	10 MG/M3
2	CARBON BLACK	1333-86-4	3.5 MG/M3
3	DIPROPYLENE GLYCOL	25265-71-8	NE
4	POLYMER ADDITIVE		NE

. . . . . End of # 04-00122 . . . . . .

04-000544 LURAZOL GREY MSDS Date: 10/89
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 3 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	C.I.ACID BLACK 83 (CR+3 2%)	7440-47-3	0.5 MG/M3
2	PARAFFIN OILS	8012-95-1	5 MG/M3

. . . . . End of # 04-00054 . . . . . .

04-000545 LURAZOL HAVANNA RL MSDS Date: 9/90
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CI ACID BROWN 161 (CU +2 2%)	7440-50-8	1 MG/M3
2	CI ACID BLACK 52 (CR+3 0.1%)	7440-47-3	0.5 MG/M3
3	CI ACID ORANGE 7	633-96-5	NE

. . . . . End of # 04-00054 . . . . . .

04-001220 LURAZOL LIGHT BROWN P 6234 LIQUID MSDS Date: 1/97
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	PROPYLENE GLYCOL	57-55-6	NE
2	IRON OXIDE	1309-37-1	10 MG/M3
3	DIPROPYLENE GLYCOL	25265-71-8	NE
4	POLYMER ADDITIVE		NE

. . . . . End of # 04-00122 . . . . . .

04-000741 LURAZOL RED BN MSDS Date: 12/91
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	SODIUM CHLORIDE	7647-14-5	NE
2	CR+3 IN DYE COMPLEX (2.7%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00074 . . . . . .

04-001227 LURAZOL RED BROWN P LIQUID MSDS Date: 1/97
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI PIGMENT RED 101	1309-37-1	10 MG/M3
2 CARBON BLACK	1333-86-4	3.5 MG/M3
3 OXIRANE POLYMER		NE
4 DIRPOPYLENE GLYCOL	25265-71-8	NE

. . . . . End of # 04-00122 . . . . . .

04-001219 LURAZOL RED P LIQUID MSDS Date: 8/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 CI PIGMENT RED 170		NE
2 TETRAMETHYLOLACETYLENEDIUREA	5395-50-6	NE
3 OXIRANE POLYMER		NE
4 DIPROPYLENE GLYCOL	25265-71-8	NE

. . . . . End of # 04-00121 . . . . . .

04-001047 LURAZOL SCARLET P LIQUID MSDS Date: 8/96
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00104 . . . . . .

04-001221 LURAZOL WHITE P LIQUID MSDS Date: 8/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPYLENE GLYCOL	57-55-6	NE
2 POLYMER	7732-18-5	NE
3 CI PIGMENT WHITE 6	13463-67-7	5 MG/M3
4 DIPROPYLENE GLYGOL	25265-71-8	NE

. . . . . End of # 04-00122 . . . . . .

04-001046 LURAZOL YELLOW P LIQUID MSDS Date: 4/97
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NOT HAZARDOUS ACCORDING TO OSHA HAZ COM.		

. . . . . End of # 04-00104 . . . . . .

04-000614 LUTAN CR MSDS Date: 8/90
Sup/Manuf: BASF Cat: MILD ACID
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROME CPD. (10%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00061 . . . . . .

04-000035 LX-14588 MSDS Date: 5/98
Sup/Manuf: HODGSON CHEM. Cat: SOLVENT BASE
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (8%)	107-21-1	
2 ETHYL ACETATE	141-78-6	

. . . . . End of # 04-00003 . . . . . .

04-000727 MAGNAPOL SOF MSDS Date: 7/90
Sup/Manuf: TFL Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 2-BUTOXYETHANOL (15%)	111-76-2	25 PPM
2 METHACRYLATE/ACRYLATE COPOLYMER		NE

. . . . . End of # 04-00072 . . . . . .

04-000535 MARDOL 1379 MSDS Date: 1/87
Sup/Manuf: MARDEN WILD CORP. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00053 . . . . . .

04-000820 MELIO TOP 232 LIQUID MSDS Date: 3/91
Sup/Manuf: CLARIANT CORP. Cat: STRONG IRRITANT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: 1 Experimental ?:

Component Information	CAS Number	Threshold
1 PHENOL	108-95-2	5 PPM

. . . . . End of # 04-00082 . . . . . .

04-000790 MELUDERM V 4012 MSDS Date: 7/92
Sup/Manuf: HOECHST CELANESE CORP. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 2-BUTOXYETHANOL (8%)	111-76-2	25 PPM

. . . . . End of # 04-00079 . . . . . .

04-000788 MELUSTRAL BLACK B 4026 MSDS Date: 7/92
Sup/Manuf: HOECHST CELANESE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CARBON BLACK	1333-86-4	3.5 MG/M3

. . . . . End of # 04-00078 . . . . . .

04-000835 MELUSTRAL BLACK V 4167 MSDS Date: 11/92
Sup/Manuf: CHEMTAN CO. Cat: PIGMENT
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00083 . . . . . .

04-000839 MELUSTRAL BROWN V 3945 MSDS Date: 7/92
Sup/Manuf: CHEMTAN CO. Cat: PIGMENT
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00083 . . . . . .

04-000840 MELUSTRAL BROWN V 3982 MSDS Date: 7/92
Sup/Manuf: CHEMTAN CO. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CARBON BLACK	1333-86-4	

. . . . . End of # 04-00084 . . . . . .

04-000832 MELUSTRAL COATING CARAMEL FK MSDS Date: 7/92
Sup/Manuf: CHEMTAN CO. Cat: PIGMENT
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00083 . . . . . .

04-000833 MELUSTRAL COATING WHITE FRN MSDS Date: 7/92
Sup/Manuf: CHEMTAN CO. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TITANIUM OXIDE	13463-67-7	

. . . . . End of # 04-00083 . . . . . .

04-000787 MELUSTRAL COATING WHITE FRN 100 MSDS Date: 7/92
Sup/Manuf: HOECHST CELANESE CORP. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 2
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TITANIUM DIOXIDE	13463-67-7	10PPM

. . . . . End of # 04-00078 . . . . . .

11-000103 MERCURY MSDS Date: 6/79
Sup/Manuf: VENTRON Cat: POISONOUS
Haz/Non-Haz:H Depts: 11 Targ:
Plant:
Personal Health Code: G Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MERCURY	7439-97-6	0.05MG/M3

. . . . . End of # 11-00010 . . . . . .

04-001229 METALAN BLACK WA MSDS Date: 4/97
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00122 . . . . . .

04-000482 METANIL YELLOW CONC 19-412 MSDS Date: 1/86
Sup/Manuf: CHEMTAN CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00048 . . . . . .

11-000107 METHYL ORANGE INDICATOR R-0637 MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 DIMETHYLAMINOBENZENE DIAZOSULFONIC ACID	547-58-0	

. . . . . End of # 11-00010 . . . . . .

04-001076 METOLAT TRA MSDS Date: 10/95
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:N Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00107 . . . . . .

11-000134 MG-1517 MSDS Date: 1/94
Sup/Manuf: BROADMOOR PRODUCTS INC. Cat:
Haz/Non-Haz:H Depts: 11 Targ:N/A
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 3 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 DIETHYLAMINOETHANOL	100-37-8	50 MG/M3

. . . . . End of # 11-00013 . . . . . .

04-000199 MICROSAN SKR MSDS Date: 3/85
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD.	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00019 . . . . . .

13-000111 MILD STEEL COVERED ELECTRODE MSDS Date:
Sup/Manuf: ALLOY RODS Cat: METAL
Haz/Non-Haz:H Depts: 13 Targ:
Plant:
Personal Health Code: X Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MIXTURE		SEE MSDS

. . . . . End of # 13-00011 . . . . . .

44-000143 MINERAL OIL MSDS Date: 3/90
Sup/Manuf: MALLINCKRODT Cat: PARAFFIN OIL
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 44-00014 . . . . . .

13-000135 MINERAL OIL (1) MSDS Date: 7/85
Sup/Manuf: EXXON Cat: NON-HAZARDOUS
Haz/Non-Haz:N Depts: 13 Targ:
Plant:
Personal Health Code: A Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00013 . . . . . .

11-000104 MINERAL SPIRITS 145-EC MSDS Date: 1/88
Sup/Manuf: SHELL Cat: SOLVENT MIX
Haz/Non-Haz:H Depts: 11 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MINERAL SPIRITS	8030-30-6	100 PPM

. . . . . End of # 11-00010 . . . . . .

21-360441 MINERAL SPIRITS ODORLESS MSDS Date: 11/85
Sup/Manuf: AMERICHEM CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 ALIPHATIC PETROLEUM DISTILLATES	64742-88-7	100 PPM

. . . . . End of # 21-36044 . . . . . .

04-000061 MIROSAN CS GRAN. MSDS Date: 10/98
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ALIPHATIC BICARBONIC ACIDS	N/A	

. . . . . End of # 04-00006 . . . . . .

13-000137 MOBIL DTE 25 MSDS Date: 8/83
Sup/Manuf: MOBIL OIL Cat: NON-HAZARDOUS
Haz/Non-Haz:N Depts: 13 Targ:
Plant:
Personal Health Code: A Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00013 . . . . . .

07-000121 MOLLESCAL AE CON. MSDS Date: 11/88
Sup/Manuf: BASF Cat: ALKALI
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRIETHANOLAMINE	102-71-6	NE

. . . . . End of # 07-00012 . . . . . .

13-000148 MOLUB-ALLOY CHAIN OIL 22 MSDS Date: 6/90
Sup/Manuf: TRIBOL Cat: LUBRICANT
Haz/Non-Haz:H Depts: 13 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: A Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TREATED NAPHTHENIC PETROLEUM DISTILLATE		

. . . . . End of # 13-00014 . . . . . .

11-000101 MOLYBDATE REAGENT R-0601 MSDS Date: 6/92
Sup/Manuf: TAYLOR TECH. Cat: ACIDIC
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM MOLYBDATE	7631-95-0	
2 SULFURIC ACID (10%)	7664-93-9	

. . . . . End of # 11-00010 . . . . . .

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04-000435  MONOTAN R POWDER                          MSDS Date: 10/93
Sup/Manuf: HODGSON CHEM.                        Cat: RESIN
Haz/Non-Haz:H  Depts:    14                 Targ:EYE, LUNG, SKIN
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  COMPLEX AMINOPLAST RESIN                               15 MG/M3
2  SODIUM SULFATE                            7757-82-6    10 MG/M3
. . . . . . . . . . . . End of # 04-00043 . . . . . . . . . . . . . . . . .
12-000107  MURIATIC ACID                             MSDS Date:  2/96
Sup/Manuf: HAVILAND PRODUCTS                    Cat: STRONG ACID
Haz/Non-Haz:H  Depts:  12                  Targ:EYE, LUNG, SKIN
               Plant:
Personal Health Code: J  Indexes-> Health: 3  Fire: 0  Reactivity: 0
SARA III?: N  EPA: 1         Experimental ?: N
   Component Information                     CAS Number   Threshold
1  HYDROCHLORIC ACID (33 %)                  7647-01-0    5 PPM
. . . . . . . . . . . . End of # 12-00010 . . . . . . . . . . . . . . . . .
04-000877  NAPTHOL BLUEBLACK B CONC                  MSDS Date:  1/93
Sup/Manuf: TWILIGHT COLOR & CHEM. CO.           Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                 Targ:N/A
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00087 . . . . . . . . . . . . . . . . .
04-000624  NAPTHOL BLUEBLACK B CONC.                 MSDS Date: 12/87
Sup/Manuf: TWILIGHT COLOR & CHEM. CO.           Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                 Targ:N/A
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00062 . . . . . . . . . . . . . . . . .
04-001040  NB# 520371                                MSDS Date:  5/96
Sup/Manuf: BAYER CORP.                          Cat:
Haz/Non-Haz:H  Depts:    14                 Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA: 1 2       Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  TERTIARY AMINES AND DIOL                               NE
. . . . . . . . . . . . End of # 04-00104 . . . . . . . . . . . . . . . . .
04-000911  NEOLAN BLACK WA-HH                        MSDS Date:  5/93
Sup/Manuf: TFL                                  Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                 Targ:LUNG, SKIN
               Plant:
Personal Health Code: E  Indexes-> Health: 2  Fire: 1  Reactivity: 0
SARA III?: Y  EPA: 1 2       Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  CHROMIUM CPD (60%)                        7440-50-8    0.5 MG/M33
. . . . . . . . . . . . End of # 04-00091 . . . . . . . . . . . . . . . . .
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04-000008 NEOPRISTOL MSK MSDS Date: 10/96
Sup/Manuf: SCHILL & SEILACHER Cat: FATLIQUIR
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENT
. . . . . End of # 04-00000 . . . . . .

04-001213 NEOPRISTOL SW MSDS Date: 3/94
Sup/Manuf: STRUKTOL CO. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00121 . . . . . .

04-001031 NEOSTAR BROWN R MSDS Date: 11/96
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00103 . . . . . .

04-001025 NEOSTAR FAWN Y MSDS Date: 2/97
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00102 . . . . . .

04-001023 NEOSTAR NAVY B MSDS Date: 2/97
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00102 . . . . . .

04-001024 NEOSTAR ORANGE Y MSDS Date: 2/97
Sup/Manuf: HODGSON CHEM. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00102 . . . . . .

19-120594 NEOSYN 202 (DRASIL 202) MSDS Date: 8/96
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:N Depts: 19 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12059 . . . . . .

19-120595 NEOSYN 24 (DRASIL 24) MSDS Date: 1/97
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:H Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 RESIN SOLUTION	TRADE SECRET	NE
2 AMMONIUM HYDROXIDE	1336-21-6	25 PPM

. . . . . End of # 19-12059 . . . . . .

04-000903 NEOSYN BS3 MSDS Date: 6/89
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00090 . . . . . .

04-000573 NEOSYN CI MSDS Date: 6/90
Sup/Manuf: HODGSON CHEM. Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 STRONG INORGANIC ACID		

. . . . . End of # 04-00057 . . . . . .

04-001032 NEPTON EXT MSDS Date: 8/94
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00103 . . . . . .

04-000408 NEUTRALIZING AGENT MSDS Date: 11/88
Sup/Manuf: BASF Cat: NEUTRALIZER
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM FORMATE	141-53-7	1 PPM

. . . . . End of # 04-00040 . . . . . .

04-000627 NEUTRICHROME BLACK S-2B MSDS Date: 9/90
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD. (85%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00062 . . . . . .

44-000160 NICKEL SULFATE MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat: TOXIC
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 NICKEL SULFATE	10101-97-0	

. . . . . End of # 44-00016 . . . . . .

04-001128 NIGROSINE BLACK WND CRYSTALS MSDS Date: 4/95
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00112 . . . . . .

04-000812 NIGROSINE W LIQUID MSDS Date: 6/92
Sup/Manuf: MILES INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00081 . . . . . .

04-000849 NIGROSINE WB CRYSTALS MSDS Date: 12/90
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00084 . . . . . .

04-000739 NIGROSINE WS LIQUID 19% MSDS Date: 12/91
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIETHYLENE GLYCOL	111-46-6	NE

. . . . . End of # 04-00073 . . . . . .

19-240441 NIGROSINE WSB CRYSTALS MSDS Date: 6/98
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 C.I.ACID ORANGE 1C.I.ACID BLACK 2	8005-03-6	NE

. . . . . End of # 19-24044 . . . . . .

44-000146 NITRIC ACID, 70% MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat: ACID
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 NITRIC ACID	7697-37-2	2 PPM

. . . . . End of # 44-00014 . . . . . .

04-000405 NOPCOTAN A-6-SD MSDS Date: 1/87
Sup/Manuf: HODGSON CHEM. Cat: RESIN
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PHENOLIC RESIN		5 MG/M3

. . . . . End of # 04-00040 . . . . . .

04-000517 NOPCOTAN A65D MSDS Date: 1/90
Sup/Manuf: HODGSON CHEM. Cat: RESIN
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PHENOLIC RESIN		5 MG/M3
1 PHENOLIC RESIN		5 MG/M3

. . . . . End of # 04-00071 . . . . . .

04-000088 NOVALTAN PF MSDS Date: 7/98
Sup/Manuf: CHEMTAN CO. Cat: IRRITANT
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PROPANAL,3-HYDROXY-2-(HYDROXYMETHYL)-2-M	18516-18-2	NE

. . . . . End of # 04-00008 . . . . . .

04-000420 NUVA LB MSDS Date: 7/89
Sup/Manuf: HOESCHST CELANESE Cat: FLUORO CPD
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00042 . . . . . .

04-000834 NUVA V 4161 MSDS Date: 7/92
Sup/Manuf: CHEMTAN CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00083 . . . . . .
04-000814 NUVA V 4161 MSDS Date: 7/92
Sup/Manuf: HOECHST CELANESE CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00081 . . . . . .
04-001131 NYLANTHRENE ORANGE A 200% MSDS Date: 5/94
Sup/Manuf: CROMPTON & KNOWLES Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00113 . . . . . .
04-001104 NYLOSAN VIOLET F-BL SGR 180 MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 CI ACID VIOLET 38 PROPRIETARY NE
. . . . . End of # 04-00110 . . . . . .
13-000144 OIL R & D OIL (REGAL OIL) MSDS Date: 11/85
Sup/Manuf: TEXACO Cat: OIL
Haz/Non-Haz:N Depts: 11 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: A Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 13-00014 . . . . . .
19-120601 OMBRELLON WD MSDS Date: 8/97
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
1 POLYMER SOLUTION
. . . . . End of # 19-12060 . . . . . .

04-000280 OMBROPHOB M MSDS Date: 11/88
Sup/Manuf: SALEM OIL & GREASE Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: H Indexes-> Health: 3 Fire: 3 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CHROME CPD.	7440-47-3	0.5 MG/M3
2	HYDROGEN CHLORIDE	7647-01-0	5 PPM
3	IPA	67-63-0	400 PPM
4	ACETONE	67-64-1	1000 PPM

. . . . . End of # 04-00028 . . . . . .

04-000200 OMBROPHOB M LIQUID MSDS Date: 2/96
Sup/Manuf: CLARIANT CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: H Indexes-> Health: 3 Fire: 4 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CHROME CPD. (43%) (CR 10%)	7440-47-3	0.5 MG/M3
2	ISOPROPANOL	67-63-0	400 PPM
3	HYCROCHLORIC ACID	7647-01-0	5 PPM
4	ACETONE	67-64-1	750 PPM

. . . . . End of # 04-00020 . . . . . .

01-000140 OPCALIN PULL UP OIL MR MSDS Date: 5/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	MINERAL OIL		
2	DILUENT & OTHER ADDITIVES		

. . . . . End of # 01-00014 . . . . . .

04-001203 OPCALIN WAX 203 MSDS Date: 9/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: WAX
Haz/Non-Haz: Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
	NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00120 . . . . . .

04-001201 OPCALIN WHITE PLN MSDS Date: 11/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
	NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00120 . . . . . .

04-001071 OPTIMALIN C MSDS Date: 5/95
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?:

	Component Information	CAS Number	Threshold
1	EMULSIFIER	TRADE SECRET	
2	SODIUM HYDROXIDE	1310-73-2	2 MG/M3

04-001071 OPTIMALIN C MSDS Date: 5/95
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?:

Component Information	CAS Number	Threshold

. . . . . End of # 04-00107 . . . . . .

04-001070 OPTIMALIN UM MSDS Date: 10/95
Sup/Manuf: BAYER CORP. Cat:
Haz/Non-Haz:H Depts: 19 Targ:EYE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 EMULSIFIER	TRADE SECRET	

. . . . . End of # 04-00107 . . . . . .

44-000130 OXALIC ACID MSDS Date: 7/85
Sup/Manuf: MALLINCKRODT Cat: POISON
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN, INGESTION
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 OXALIC ACID	144-62-7	

. . . . . End of # 44-00013 . . . . . .

60-120108C OXALIC ACID MSDS Date: 11/90
Sup/Manuf: RHONE-POULENC BASIC CHEMICALS CO. Cat: ACID-POISONOUS
Haz/Non-Haz:H Depts: 14 17 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 OXALIC ACID	6153-56-6	1 MG/M3

. . . . . End of # 60-12010 . . . . . .

13-000177 OXYGEN MSDS Date: 4/95
Sup/Manuf: BOC GASES Cat: GAS
Haz/Non-Haz:H Depts: 13 Targ:N/A
Plant:
Personal Health Code: Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: 5 Experimental ?: N

Component Information	CAS Number	Threshold
1 OXYGEN	7782-44-7	NE

. . . . . End of # 13-00017 . . . . . .

01-000347 P-0400 BLACK PIGMENT MSDS Date: 7/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CARBON BLACK	1333-86-4	3.5 MG/M3
2 ETHYLENE GLYCOL (3%)	107-21-1	50 PPM

. . . . . End of # 01-00034 . . . . . .

01-000365 P-0750 WHITE MSDS Date: 11/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 01-00036 . . . . . .

21-360285 P-4083 YELLOW MSDS Date: 5/88
Sup/Manuf: STAHL FINISH Cat: ALKALI
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 AMMONIUM HYDROXIDE	1336-21-6	25 PPM
2 MORPHOLINE	110-91-8	20 PPM

. . . . . End of # 21-36028 . . . . . .

01-000363 P-8697 MSDS Date: 4/93
Sup/Manuf: STAHL FINISH Cat: ALKALI
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SILICA, CRYSTALLINE QUARTZ	14808-60-7	0.1 MG/M3
2 AMMONIUM HYDROXIDE (0.3%)	1336-21-6	50 PPM
3 TRIPOLI (SILICA)	1317-95-9	0.1 MG/M3

. . . . . End of # 01-00036 . . . . . .

04-000474 PALATIN FAST PINK BNI MSDS Date: 10/88
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CR+3 DYE COMPLEX (3%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00047 . . . . . .

44-000127 PALATINOL DOP "SG" MSDS Date: 12/88
Sup/Manuf: BASF Cat:
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PALATINOL DOP "SG"	117-84-0	5MG/M3

. . . . . End of # 44-00012 . . . . . .

44-000112 PALITONAL DOP "SG" MSDS Date: 12/88
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 BIS-(2-ETHYLHEXYL)PHTHLATE	117-81-7	5 MG/M3

. . . . . End of # 44-00011 . . . . . .

19-120599 PARADOL HAN-US MSDS Date: 5/94
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TETRADECENE	1120-36-1	
2 HYDROGEN PEROXIDE	7722-84-1	

. . . . . End of # 19-12059 . . . . . .

19-120566 PARADOL HP (E1192) MSDS Date: 1/96
Sup/Manuf: HODGSON CHEM. Cat: SOLVENT FATLIQUOR
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 2-BUTOXY ETHANOL		

. . . . . End of # 19-12056 . . . . . .

04-000757 PARADOL IFN MSDS Date: 1/92
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00075 . . . . . .

04-000021 PARADOL KN-US MSDS Date: 12/97
Sup/Manuf: HODGSON CHEM. Cat: ACID MATERIAL
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?:

Component Information	CAS Number	Threshold
1 ACETIC ACID	64-19-7	10 PPM

. . . . . End of # 04-00002 . . . . . .

04-000799 PARALENE E-392 MSDS Date: 7/92
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00079 . . . . . .

19-120337 PARALENE PWG MSDS Date: 3/89
Sup/Manuf: HODGSON CHEM. Cat: MILD ACID
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 FORMALDEHYDE	50-00-0	NE

. . . . . End of # 19-12033 . . . . . .

19-120544 PARAMEL ES MSDS Date: 4/98
Sup/Manuf: HODGSON CHEM. Cat: ACIDIC
Haz/Non-Haz:H Depts: 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: C Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 AQUEOUS SOL/AMMONIUM POLYACRYLIC ACID	NE	NE

. . . . . End of # 19-12054 . . . . . .

60-120120 PARVOL BS POWDER MSDS Date: 2/89
Sup/Manuf: HODGSON CHEM. Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (TRACE)	50-00-0	

. . . . . End of # 60-12012 . . . . . .

04-000402 PARVOL DF MSDS Date: 5/89
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: MILD ACID
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 FORMALDEHYDE	50-00-0	

. . . . . End of # 04-00040 . . . . . .

04-001035 PARVOL DPL-N MSDS Date: 9/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 FATTY AMINE ETHOXYLATE		
2 HEXYLENE GLYCOL	107-41-5	

. . . . . End of # 04-00103 . . . . . .

17-120149 PARVOL PCNR MSDS Date: 11/95
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 4-PHELOLSULPHONIC ACID		
2 CHROME CPD. (10%)		

. . . . . End of # 17-12014 . . . . . .

60-120126 PARVOL PRA MSDS Date: 5/99
Sup/Manuf: HODGSON CHEM. Cat: IRRITANT
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 COMB.PHENOL/FORMALDEHYDE PRODUCT	NE	NE

. . . . . End of # 60-12012 . . . . . .

12-000128 PASS-POLYBASIC ALUMINUM SULPHATE SOLUTION MSDS Date: 5/94
Sup/Manuf: UNITED STATES ALUMINATE CO., INC. Cat: ACIDIC
Haz/Non-Haz:H Depts: 12 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 POLYMERIZED BASIC ALUMINUM SULPHATE SOL.		NE

. . . . . End of # 12-00012 . . . . . .

04-000809 PD-1-22-B EXPERIMENTAL MSDS Date:
Sup/Manuf: ATLAS REFINERY INC. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00080 . . . . . .

04-000399 PELLAN 802 MSDS Date: 2/92
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:EYE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00039 . . . . . .

04-001055 PELLAN 802-U MSDS Date: 1/96
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00105 . . . . . .

04-001052 PELLAN SW MSDS Date: 7/96
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZAROUS INGREDIENTS		

. . . . . End of # 04-00105 . . . . . .

04-000913 PELLASAN AM 40 U MSDS Date: 5/93
Sup/Manuf: HODGSON CHEM. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PETROLEUM DERIVATIVE		5 MG/M3
2 DIPROPYLENE GLYCOL METHYL ETHER	34590-94-8	100 PPM

. . . . . End of # 04-00091 . . . . . .

04-000442 PELLUTAX AW-S MSDS Date: 7/89
Sup/Manuf: HODGSON CHEM. Cat:
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PELLUTAX AW-S		NE
2 PHENOL	108-95-2	5 PPM
3 SODIUM SULFATE	7767-82-6	NE

. . . . . End of # 04-00044 . . . . . .

17-120153 PELLVIT C MSDS Date: 9/98
Sup/Manuf: TFL Cat: IRRITANT DUST
Haz/Non-Haz:H Depts: 17 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 ENZYME COMPOUND	PROPRIETARY	NE

. . . . . End of # 17-12015 . . . . . .

17-120145 PELLVIT LP MSDS Date: 6/96
Sup/Manuf: TFL Cat: IRRITANT
Haz/Non-Haz:H Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TRADE SECRET		

. . . . . End of # 17-12014 . . . . . .

04-001101 PENETRATING BLUE VSG POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID BLUE 9	3844-45-9	NE
2 MINERAL OIL	8012-95-1	5 MG/M3

. . . . . End of # 04-00110 . . . . . .

19-240227 PENETRATING BROWN 2R CONC. MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24022 . . . . . .

04-001122 PENETRATING CHROME BROWN 2R POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00112 . . . . . .

04-001121 PENETRATING RED 2G MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 CI ACID RED 1 3737-67-6
. . . . . End of # 04-00112 . . . . . .
19-120606 PENETRATOR 7312 MSDS Date: 3/98
Sup/Manuf: UNION SPECIALTIES Cat:
Haz/Non-Haz:N Depts: 19 Targ:NONE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12060 . . . . . .
04-000032 PENETRATOR TM MSDS Date: 4/98
Sup/Manuf: UNION SPECIALTIES Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00003 . . . . . .
44-000131 PERCHLORIC ACID 60%, 70% MSDS Date: 2/99
Sup/Manuf: FISHER SCIENTIFIC Cat: ACID, OXIDIZER
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 0 Reactivity: 3
SARA III?: N EPA: 1 2 3 Experimental ?: N
Component Information CAS Number Threshold
1 PERCHLORIC ACID 7601-90-3
. . . . . End of # 44-00013 . . . . . .
19-120604 PERFECTOL HQ MSDS Date: 1/89
Sup/Manuf: STRUKTOL CO. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12060 . . . . . .
04-000017 PERFECTOL QX MSDS Date: 5/96
Sup/Manuf: SCHILL & SEILACHER Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00001 . . . . . .

19-120511 PERFECTOL UKB/HQ MSDS Date: 3/94
Sup/Manuf: STRUKTOL CO. Cat: NEUTRAL/WAX DISPER
Haz/Non-Haz:N Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12051 . . . . . .

04-000715 PERFECTOL WX MSDS Date: 10/91
Sup/Manuf: STRUKTOL CO. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00071 . . . . . .

04-000418 PERGACID BLACK WAL EX MSDS Date: 8/89
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.ACID BLACK 52,(CR+3 DYE 90%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00041 . . . . . .

17-120126 PERICLASE 98 1/1 PULVER. MSDS Date: 7/86
Sup/Manuf: MARTIN MARIETTA Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MAGNESIUM OXIDE	1309-48-4	15 MG/M3

. . . . . End of # 17-12012 . . . . . .

44-000156 PETROLEUM ETHER MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 4 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PETROLEUM ETHER-MIX PENTANE & HEXANE	8032-32-4	

. . . . . End of # 44-00015 . . . . . .

44-000101 PHENOL, CRYSTALS MSDS Date: 12/85
Sup/Manuf: MALLINCKRODT Cat: ACIDIC/POISON
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: F Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 CARBOLIC ACID	108-95-2	5 PPM

. . . . . End of # 44-00010 . . . . . .

11-000121 PHENOLPHTHALEIN INDICATOR R-0638 MSDS Date: 8/93
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT
Haz/Non-Haz:H Depts: 11 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 3 Reactivity: 0
SARA III?: N EPA: 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 ISOPROPYL ALCOHOL	67-63-0	
2 PHENOLPHTHALEIN	77-09-8	

. . . . . End of # 11-00012 . . . . . .

44-000151 PHLOROGLUCINOL DIHYDRATE MSDS Date: 3/87
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PHLOROGLUCINOL DIHYDRATE	108-73-6	

. . . . . End of # 44-00015 . . . . . .

04-000089 PHOS 2 MSDS Date: 6/98
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: ACIDIC
Haz/Non-Haz:H Depts: 17 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
1 PROPRIETARY		

. . . . . End of # 04-00008 . . . . . .

12-000118D PHOSPHORIC ACID 75% MSDS Date: 8/90
Sup/Manuf: HAVILAND PRODUCTS Cat: ACIDIC
Haz/Non-Haz:H Depts: 12 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 PHOSPHORIC ACID	7664-38-2	1 MG/M3

. . . . . End of # 12-00011 . . . . . .

04-000760 PLATE WASH BPI MSDS Date: 2/91
Sup/Manuf: BROADMOOR PRODUCTS INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: C Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM METASILICATE	6834-92-0	2 MG/M3
2 POTASSIUM HYDROXIDE	1310-58-3	2 MG/M3
3 AQUA AMMONIA (5%)	1336-21-6	25 PPM

. . . . . End of # 04-00076 . . . . . .

04-000756 PLUVION L-86 MSDS Date: 4/91
Sup/Manuf: BOEHME FILATEX INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ALCOHOLS,C16-C18		NE
2 ALCOHOLS,C10-C16		

. . . . . End of # 04-00075 . . . . . .

04-000457 PONTAMINE BROWN RF LIQUID MSDS Date: 2/86
Sup/Manuf: MOBAY CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIA	7664-41-7	25 PPM

. . . . . End of # 04-00045 . . . . . .

44-000135 POTASSIUM CHLORIDE MSDS Date: 3/96
Sup/Manuf: FISHER SCIENTIFIC Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00013 . . . . . .

44-000158 POTASSIUM DICHROMATE MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 POTASSIUM DICHROMATE	7778-50-9	0.05 MG/M3

. . . . . End of # 44-00015 . . . . . .

44-000136 POTASSIUM FERRICYANIDE MSDS Date: 8/85
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00013 . . . . . .

44-000137 POTASSIUM IODIDE MSDS Date: 7/96
Sup/Manuf: FISHER SCIENTIFIC Cat:
Haz/Non-Haz:H Depts: 14 Targ:NONE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 POTASSIUM IODIDE	7681-11-0	NE

. . . . . End of # 44-00013 . . . . . .

13-000163 POWER LUBE MSDS Date: 5/98
Sup/Manuf: PREMIER INDUSTRIAL Cat: SOLVENT-BLEND
Haz/Non-Haz:H Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 4 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 TOLUENE (TRACE)	108-88-3	
2 BENZENE (TRACE)	71-43-2	
3 PROPANE	74-98-6	
4 N-BUTANE	106-97-8	
5 PETROLEUM OIL	64741-56-6	
6 PETROLEUM OIL	64742-57-0	
7 PROPANE	74-98-6	
8 ASPHALT, PETROLEUM	8052-42-4	
9 HEPTANE	142-82-5	

13-000163 POWER LUBE MSDS Date: 5/98
Sup/Manuf: PREMIER INDUSTRIAL Cat: SOLVENT-BLEND
Haz/Non-Haz:H Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 4 Reactivity: 0
SARA III?: Y EPA: 1 4 Experimental ?: N

Component Information	CAS Number	Threshold

. . . . . End of # 13-00016 . . . . . .

01-000001 PP-15-001 PREMIXED MSDS Date: 6/98
Sup/Manuf: STAHL USA Cat:
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHANOLAMINE	141-43-5	3 PPM
2 MICA	12001-26-2	3 MG/CU3

. . . . . End of # 01-00000 . . . . . .

01-000002 PP-15-003 PREMIXED MSDS Date: 6/98
Sup/Manuf: STAHL USA Cat:
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TITANIUM DIOXIDE	13463-67-7	10 MG/M3
2 ETHANOLAMINE	141-43-5	3 PPM
3 MICA	12001-26-2	3 MG/M3

. . . . . End of # 01-00000 . . . . . .

04-000770 PRESTO 2871 LF APPLE JUICE MSDS Date: 4/92
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 SILICA	14808-60-7	0.1 MG/M3
3 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 04-00077 . . . . . .

04-000532 PRESTO 401 MSDS Date: 3/90
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 04-00053 . . . . . .

04-000771 PRESTO 4468 LF WINDSOR GREEN MSDS Date: 4/92
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 SILICA	14808-60-7	0.1 MG/M3

. . . . . End of # 04-00077 . . . . . .

04-000769 PRESTO 4960 LF CAMEL MSDS Date: 8/97
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 SILICA	14808-60-7	0.1 MG/M3
3 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 04-00076 . . . . . .

04-000428 PRESTO 546A RUST MSDS Date: 9/89
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3

. . . . . End of # 04-00042 . . . . . .

19-240498 PRESTO 547A GREEN MSDS Date: 9/89
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 19-24049 . . . . . .

04-000430 PRESTO 548A GREY MSDS Date: 9/89
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 04-00043 . . . . . .

19-240502 PRESTO 61 BLUE MSDS Date: 1/90
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 19-24050 . . . . . .

04-000438 PRESTO 78 GREEN MSDS Date: 10/89
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3

. . . . . End of # 04-00043 . . . . . .

19-240389 PRESTO PIG #2063 CALIF ORNG MSDS Date: 1/87
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 LEAD CPD 16.9%	7439-92-1	

. . . . . End of # 19-24038 . . . . . .

19-240230 PRESTO PIG #2871 APPLE JUICE MSDS Date: 6/89
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 LEAD CPD (20%)	7439-92-1	0.05 MG/M3
2 CHROME CPD (9%)	7440-47-3	0.01 MG/M3
3 ALUMINUM SILICATE	1335-30-4	5.00 MG/M3
4 TITANIUM DIOXIDE	13463-67-7	5.00 MG/M3

. . . . . End of # 19-24023 . . . . . .

19-240231 PRESTO PIG #2892 CAPER MSDS Date: 5/86
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 LEAD CPD 1.3%	7439-92-1	
2 CHROME CPD	7440-47-3	

. . . . . End of # 19-24023 . . . . . .

19-240232 PRESTO PIG #3606 SAGEBRUSH MSDS Date: 5/86
Sup/Manuf: HODGSON CHEM. Cat: NON-HAZ PIGMENT
Haz/Non-Haz:N Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24023 . . . . . .

19-240233 PRESTO PIG #3607 GUNSMOKE MSDS Date: 10/93
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 SILICA, CRYSTALLINE (<0.6%)	14808-60-7	0.1 MG/M3
3 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 19-24023 . . . . . .

19-240234 PRESTO PIG #3925 CALC ORNG MSDS Date: 7/90
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 SILICA, CRYSTALLINE QUARTZ	14808-60-7	0.1 MG/M3

. . . . . End of # 19-24023 . . . . . .

19-240235 PRESTO PIG #4072 HOUN DOG MSDS Date: 3/95
Sup/Manuf: HODGSON CHEM. Cat: SUSPECTED CARCINOG
Haz/Non-Haz:H Depts: 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 CRYSTALLINE SILICA (SUSPECTED CARCN 0.9%	14808-60-7	0.1 MG/M3
3 TITANIUM DIOXIDE	13463-67-7	10 MG/M3

. . . . . End of # 19-24023 . . . . . .

19-240236 PRESTO PIG #4073 ROOTBEER MSDS Date: 1/87
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 LEAD CPD 8.5%	7439-92-1	
2 CHROME CPD	7440-47-3	

. . . . . End of # 19-24023 . . . . . .

19-240237 PRESTO PIG #4221 SPORT YELLOW MSDS Date: 1/87
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 LEAD CPD (27.3%)	7439-92-1	
2 CHROME CPD	7440-47-3	

. . . . . End of # 19-24023 . . . . . .

19-240238 PRESTO PIG #4468 WINDSOR GREEN MSDS Date: 1/87
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 LEAD CPD (28%)	7439-92-1	
2 CHROME CPD	7440-47-3	

. . . . . End of # 19-24023 . . . . . .

19-240239 PRESTO PIG #4610 COPPERTONE MSDS Date: 7/90
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 SILICA, CRYSTALLINE QUARTZ	14808-60-7	0.1 MG/M3

. . . . . End of # 19-24023 . . . . . .

19-240240 PRESTO PIG #4959 WHISKY MSDS Date: 5/86
Sup/Manuf: HODGSON CHEM. Cat: NON-HAZ PIGMENT
Haz/Non-Haz:N Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24024 . . . . . .

19-240241 PRESTO PIG #4960 CLASSIC CAMEL MSDS Date: 4/91
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

	Component Information	CAS Number	Threshold
1	LEAD CPD (1.35%)	7439-92-1	
2	CHROME CPD (0.6%)	7440-47-3	0.1 MG/M3
3	TALC	14807-96-6	2 MG/M3
4	TITANIUM DIOXIDE	13463-67-7	10 MG/M3
5	CRYSTALLINE SILICA	14808-60-7	0.1 MG/M3

. . . . . End of # 19-24024 . . . . . .

19-240242 PRESTO PIG #4962 FIERY COPPER MSDS Date: 1/87
Sup/Manuf: HODGSON CHEM. Cat: PIGMENT
Haz/Non-Haz:H Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	LEAD CPD (13.7%)	7439-92-1	

. . . . . End of # 19-24024 . . . . . .

19-240243 PRESTO PIG #4969 FRIAR BRN MSDS Date: 5/86
Sup/Manuf: HODGSON CHEM. Cat: NON-HAZ PIGMENT
Haz/Non-Haz:N Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
	NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24024 . . . . . .

19-240576 PRESTO PIG 171 APPLE JUICE MSDS Date: 11/93
Sup/Manuf: HODGSON CHEM. Cat: SUSPECTED CARCINOG
Haz/Non-Haz:H Depts: 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

	Component Information	CAS Number	Threshold
1	TALC	14807-96-6	2 MG/M3
2	CRYSTALLINE SILICA (SUSP. CARCINO 1%)	14808-60-7	0.1 MG/3
3	BARIUM SULFATE (3%)	7727-43-7	10 MG/M3

. . . . . End of # 19-24057 . . . . . .

04-000616 PRETREAT SS-10 MSDS Date: 2/91
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	1,3-DICHLORO-2-PROPANOL		

. . . . . End of # 04-00061 . . . . . .

04-000087 PREVENTOL WB MSDS Date: 2/99
Sup/Manuf: BAYER CORP. Cat: CORROSIVE LIQUID
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?:

	Component Information	CAS Number	Threshold
1	4-CHLORO-3-METHYLPHENOL	59-50-7	NE
2	2-PHENYLPHENOL	90-43-7	NE
3	PROPYLENE GLYCOL	57-55-6	NE

04-000087 PREVENTOL WB MSDS Date: 2/99
Sup/Manuf: BAYER CORP. Cat: CORROSIVE LIQUID
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?:
Component Information CAS Number Threshold
. . . . . End of # 04-00008 . . . . . .

17-120143 PRIAM 810 MSDS Date: 6/95
Sup/Manuf: FENNIG LTD. Cat: MILD ACID
Haz/Non-Haz:H Depts: 17 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 METHYLENE BIS(THIOCYANATE) 6317-18-6 NE
. . . . . End of # 17-12014 . . . . . .

21-360327 PRIMAL 191 EMULSION MSDS Date: 8/85
Sup/Manuf: ROHM & HAAS Cat: ACRYLIC
Haz/Non-Haz:N Depts: 21 Targ:SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 21-36032 . . . . . .

21-360253 PRIMAL BLUE #3 COLORANT MSDS Date: 5/89
Sup/Manuf: ROHM & HAAS Cat: ALKALI/PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 PHTHALOCYANINE PIGMENT 147-14-8 NE
2 AMMONIA 7664-41-7 25 PPM
. . . . . End of # 21-36025 . . . . . .

19-120344 PRIMAL HA 8 (RHOPLEX HA-8) MSDS Date: 5/96
Sup/Manuf: BAYER CORP. Cat: MILD ACID
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: N
Component Information CAS Number Threshold
1 FORMALDEHYDE (0.05%) 50-00-0 0.3 PPM
. . . . . End of # 19-12034 . . . . . .

04-000767 PRIMAL HA-12 EMULSION MSDS Date: 10/90
Sup/Manuf: ROHM & HAAS Cat: MILD ACIDIC
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y
Component Information CAS Number Threshold
1 ACRYLIC COPOLYMER
2 INDIVIDUAL RESIDUAL MONOMERS
3 FORMALDEHYDE 50-00-0 0.3 PPM
4 WATER 7732-18-5
. . . . . End of # 04-00076 . . . . . .

21-360192 PRIMAL LA CHERRY RED COLORANT MSDS Date: 9/85
Sup/Manuf: ROHM & HAAS Cat: SOLVENT/DYE
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 ORGANIC AMINO NEUTRALIZER	3207-12-3	3 PPM

. . . . . End of # 21-36019 . . . . . .

21-360366 PRIME 1450 MSDS Date: 8/93
Sup/Manuf: PRIME LEATHER FINISHES Cat: WAX EMULSION
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MORPHOLINE	110-91-8	NE

. . . . . End of # 21-36036 . . . . . .

21-360300 PRIME 21533 MSDS Date: 6/93
Sup/Manuf: PRIME LEATHER FINISHES Cat: ACRYLIC LATEX RESI
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 21-36030 . . . . . .

21-360435 PRIME 29907 R DK. BRN. MSDS Date: 6/91
Sup/Manuf: PRIME LEATHER FINISHES Cat: PIGMENT
Haz/Non-Haz:N Depts: 21 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 21-36043 . . . . . .

21-360440 PRIME 30006 BOOTH COATING MSDS Date: 8/93
Sup/Manuf: PRIME LEATHER FINISHES Cat: LATEX
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 BUTYL CARBITOL (4.2%)	112-34-5	NE

. . . . . End of # 21-36044 . . . . . .

60-120111A PRO MX NAVY 412 MSDS Date: 7/94
Sup/Manuf: PRO CHEM & DYE INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 3 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DISAZO DICHLOROTRIAZINE REACTIVE DYE		

. . . . . End of # 60-12011 . . . . . .

19-240244 PROCION BLACK MX-#1 MSDS Date: 11/85
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PROPRIETARY		NE

. . . . . End of # 19-24024 . . . . . .

04-000177 PROCION BLACK MX-CWNA POWDER MSDS Date: 11/87
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DYESTUFF		NE

. . . . . End of # 04-00017 . . . . . .

19-240245 PROCION BLUE MX-2G MSDS Date: 4/86
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PROPRIETARY		10 MG/M3

. . . . . End of # 19-24024 . . . . . .

04-000888 PROCION BLUE MX-G MSDS Date: 1/90
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFFS
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.REACTIVE BLUE 163		NE

. . . . . End of # 04-00088 . . . . . .

19-240246 PROCION BLUE MX-R MSDS Date: 6/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 C.I.REACTIVE BLUE 4	4499-01-8	NE

. . . . . End of # 19-24024 . . . . . .

19-240247 PROCION BROWN MX-5BR MSDS Date: 6/92
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 C.I.REACTIVE BROWN 10		NE
2 CHROMIUM (1.75%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24024 . . . . . .

19-240248 PROCION BROWN MX-GRN MSDS Date: 6/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24024 . . . . . .

04-000180 PROCION BROWN MX-RDA POWDER MSDS Date: 11/86
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 DYESTUFF NE
. . . . . End of # 04-00018 . . . . . .

19-240444 PROCION BROWN MX-RL NEW MSDS Date: 3/78
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N
Component Information CAS Number Threshold
1 PROPRIETARY 10 MG/M3
. . . . . End of # 19-24044 . . . . . .

04-000783 PROCION NAVY MX-2RDA MSDS Date: 1/90
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 DYESTUFF NE
. . . . . End of # 04-00078 . . . . . .

19-240252 PROCION ORANGE MX-2R MSDS Date: 6/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24025 . . . . . .

19-240254 PROCION RED MX-5B MSDS Date: 6/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24025 . . . . . .

19-240255 PROCION RED MX-8B MSDS Date: 4/90
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 C.I.REACTIVE RED 11		NE

. . . . . End of # 19-24025 . . . . . .

04-000179 PROCION RED MX-BA MSDS Date: 11/86
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DYESTUFF		NE

. . . . . End of # 04-00017 . . . . . .

04-000782 PROCION RED MX-GBA MSDS Date: 1/90
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DYESTUFF		NE

. . . . . End of # 04-00078 . . . . . .

19-240256 PROCION SCARLET MX-BRA MSDS Date: 1/90
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 DYESTUFF		NE

. . . . . End of # 19-24025 . . . . . .

19-240257 PROCION SCARLET MX-G MSDS Date: 4/80
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PURE DYE		10 MG/M3
2 PROPRIETARY		NE

. . . . . End of # 19-24025 . . . . . .

04-000784 PROCION TURQUOISE MX-G MSDS Date: 6/92
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 C.I.REACTIVE BLUE 140		NE
2 COPPER (2.65%)	7440-50-8	NE

. . . . . End of # 04-00078 . . . . . .

19-240538 PROCION VIOLET H-3R MSDS Date: 10/90
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 CI REACTIVE VIOLET 1		NE
2 COPPER CPD (84% CPD)	7440-50-8	

. . . . . End of # 19-24053 . . . . . .

04-000178 PROCION YELLOW MX-2GA MSDS Date: 11/86
Sup/Manuf: ICI AMERICAS INC. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 DYESTUFF		NE

. . . . . End of # 04-00017 . . . . . .

19-240258 PROCION YELLOW MX-3RA MSDS Date: 6/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24025 . . . . . .

19-240259 PROCION YELLOW MX-8G MSDS Date: 6/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 CI REACTIVE YELLOW 86		NE

. . . . . End of # 19-24025 . . . . . .

19-240260 PROCION YELLOW MX-GR MSDS Date: 6/96
Sup/Manuf: BASF Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24026 . . . . . .

04-000281 PRODUCT 30-D MSDS Date: 4/80
Sup/Manuf: PILAR INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: C Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 IPA	67-63-0	400 PPM

. . . . . End of # 04-00028 . . . . . .

04-000153 PROPILON BNV-G MSDS Date: 11/85
Sup/Manuf: TFL Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00015 . . . . . .

04-000282 PROXEL GXL MSDS Date: 7/86
Sup/Manuf: ICI AMERICAS INC. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	NE
2	DIPROPYLENE GLYCOL	25265-71-8	NE
3	SODIUM HYDROXIDE	1310-73-2	2 MG/M3

. . . . . End of # 04-00028 . . . . . .

19-120504 PRP-80 MSDS Date: 8/92
Sup/Manuf: PILAR RIVER PLATE CORP. Cat:
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12050 . . . . . .

04-000263 PYRASOL BLACK N MSDS Date: 11/85
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CI DIRECT BLACK 19	6428-31-5	NE

. . . . . End of # 04-00026 . . . . . .

04-000701 PYRAZOL BLACK N CONC POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:INGESTION
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CI DIRECT BLACK 19	6428-31-5	NE

. . . . . End of # 04-00070 . . . . . .

04-000561 PYRAZOL BRILLIANT VIOLET B POWDER MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CI DIRECT VIOLET 9	6227-14-1	NE

. . . . . End of # 04-00056 . . . . . .

04-001103 PYRAZOL FAST BLUE 2GLN POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER CPD. (15%) (CU 2%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00110 . . . . . .

04-001097 PYRAZOL FAST BLUE FGL SGR 400 MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER CPD. (70%) (CU 6%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00109 . . . . . .

04-001102 PYRAZOL FAST BLUE RUL POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER CPD. (36.6%) (CU 4.4%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00110 . . . . . .

04-000751 PYRAZOL FAST TURQUOISE FBL POWDER 118 MSDS Date: 11/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M3
2 COPPER CPD (32%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00075 . . . . . .

04-000082 PYRAZOL FAST TURQUOISE FBL POWDER 400 MSDS Date: 5/92
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER COMPOUND 90% (CU 6%)	7440-50-8	1 MG/M3

. . . . . End of # 04-00008 . . . . . .

04-000578 PYRAZOL ORANGE 2R CONC POWDER MSDS Date: 5/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00057 . . . . . .

19-120609 QUEBRACHO SM MSDS Date: 6/97
Sup/Manuf: PILAR RIVER PLATE CORP. Cat: DUST
Haz/Non-Haz:N Depts: 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?:

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12060 . . . . . .

21-360130 RC-4230 (OLD RB-4230) MSDS Date: 1/99
Sup/Manuf: STAHL FINISH Cat: ALKALI
Haz/Non-Haz:H Depts: 21 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL BE (6%)	111-76-2	25 PPM
2 AMMONIUM HYDROXIDE (0.4%)	1336-21-6	25 PPM

. . . . . End of # 21-36013 . . . . . .

19-120345 RELUGAN GTW MSDS Date: 4/97
Sup/Manuf: BASF Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 2 Reactivity: 1
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 METHANOL (5%)	67-56-1	200 PPM
2 FORMALDEHYDE (1%)	50-00-0	1 PPM
3 ALKOXY ALDEHYDE		NE

. . . . . End of # 19-12034 . . . . . .

04-000550 RELUGAN NB-112 MSDS Date: 4/89
Sup/Manuf: BASF Cat: ACIDIC
Haz/Non-Haz:N Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00055 . . . . . .

04-000541 RELUGAN RF MSDS Date: 10/88
Sup/Manuf: BASF Cat: MILD ACIDIC
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00054 . . . . . .

04-000549 RELUGAN RV MSDS Date: 3/90
Sup/Manuf: BASF Cat: MILD ACID
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00054 . . . . . .

04-000067 REMSYNOL 802-U MSDS Date: 3/98
Sup/Manuf: HODGSON CHEM. Cat: SURFACTANT
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:
Component Information CAS Number Threshold
1 SURFACTANT MIXTURE TRADE SECRET
. . . . . End of # 04-00006 . . . . . .
04-000845 RESIN 2617-A MSDS Date: 8/92
Sup/Manuf: PILAR INC. Cat:
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00084 . . . . . .
04-001231 RESIN QRXP-1422 PMN, EXPERIMENTAL MSDS Date: 6/95
Sup/Manuf: ROHM & HAAS Cat: SOLVENT BASE
Haz/Non-Haz:H Depts: 14 Targ:LIVER, KIDNEY
Plant:
Personal Health Code: J Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 2 4 Experimental ?: Y
Component Information CAS Number Threshold
1 PROPYLENE GLYCOL METHYL ETHER ACETATE(50 108-65-6
. . . . . End of # 04-00123 . . . . . .
19-120545 RESISTOL AS MSDS Date: 9/98
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: MILD ACIDIC
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 2 Experimental ?: N
Component Information CAS Number Threshold
1 ANTISTATIC AGENT 68308-67-8 NE
. . . . . End of # 19-12054 . . . . . .
04-000523 RETAN 540 TANNING AGENT MSDS Date: 8/90
Sup/Manuf: ROHM & HAAS Cat: ACIDIC
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00052 . . . . . .
04-000513 RETINGAN R48A MSDS Date: 6/82
Sup/Manuf: BAYER CORP. Cat: TANNING AGENT
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00051 . . . . . .

19-120551 RETINGAN R5 MSDS Date: 5/91
Sup/Manuf: BAYER CORP. Cat: MILD ALKALI
Haz/Non-Haz:N Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12055 . . . . . .

19-120490 RETINGAN R7 (TALC) MSDS Date: 3/92
Sup/Manuf: BAYER CORP. Cat: POWDER
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 TALC	14807-96-6	2 MG/M3
2 SODIUM CARBONATE	497-19-8	NE

. . . . . End of # 19-12049 . . . . . .

01-000146 RH-6659 MSDS Date: 2/98
Sup/Manuf: STAHL USA Cat:
Haz/Non-Haz:N Depts: 21 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREGIENTS		

. . . . . End of # 01-00014 . . . . . .

19-120344B RHOPLEX HA-8 (PRIMAL HA-8) MSDS Date: 2/92
Sup/Manuf: BAYER CORP. Cat: MILD ACID
Haz/Non-Haz:H Depts: 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (0.05%)	50-00-0	0.3PPM

. . . . . End of # 19-12034 . . . . . .

04-000768 RHOPLEX P-376 50% EMULSION MSDS Date: 8/90
Sup/Manuf: ROHM & HAAS Cat: ALKALI
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00076 . . . . . .

13-000118 RID RUST II MSDS Date: 5/96
Sup/Manuf: PREMIER INDUSTRIAL Cat: SOLVENT
Haz/Non-Haz:H Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 4 Reactivity: 0
SARA III?: N EPA: 1 4 Experimental ?: N

Component Information	CAS Number	Threshold
1 PROPANE	74-98-6	1000 PPM
2 N-BUTANE	106-97-8	1000 PPM
3 MINERAL SPIRITS	64742-88-7	200 PPM
4 PETROLEUM OIL	8012-95-1	

. . . . . End of # 13-00011 . . . . . .

13-000119 ROCOL TUFGEAR(OPEN GEAR LUBE OIL) MSDS Date: 1/86
Sup/Manuf: FRANKLIN OIL Cat: GREASE
Haz/Non-Haz:H Depts: 13 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 HEAVY NAPTHA DISTILLATE	64741-53-3	5 MG/M3

. . . . . End of # 13-00011 . . . . . .

04-000004 RODA NUBUCK N MSDS Date: 10/97
Sup/Manuf: TFL Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDIOUS INGREDIENTS		

. . . . . End of # 04-00000 . . . . . .

04-000892 RODACRYL I-115 MSDS Date: 8/92
Sup/Manuf: TFL Cat: ALKALI POLYMER
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIA	7664-41-7	25 PPM
2 ACRYLAMIDE	79-06-1	0.3 MG/M3
3 METHYL METHACRYLATE	80-62-6	100 PPM
4 BUTYL ACRYLATE	141-32-2	100 PPM

. . . . . End of # 04-00089 . . . . . .

17-120154 ROHAPON N6NA MSDS Date: 5/98
Sup/Manuf: TFL Cat: IRRITANT DUST
Haz/Non-Haz:H Depts: 17 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 ENZYME BLEND	PROPRIETARY	NE

. . . . . End of # 17-12015 . . . . . .

07-000134 ROHAPON WB MSDS Date: 10/95
Sup/Manuf: TFL Cat: DUST
Haz/Non-Haz:H Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PARTICULATE (TOTAL DUST)		

. . . . . End of # 07-00013 . . . . . .

17-120147 ROHOPAN 6000 MSDS Date: 12/87
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 17 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 ENZYME CONCENTRATE		0.003 MG/M3

. . . . . End of # 17-12014 . . . . . .

13-000175 RONEX MP (was Rykon Premium Grease #2) MSDS Date: 5/98
Sup/Manuf: AMOCO OIL COMPANY Cat:
Haz/Non-Haz:N Depts: 13 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00017 . . . . . .

21-360345 RU-5054 MSDS Date: 1/99
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 TRIETHYLAMINE (1%)	121-44-8	10 PPM
2 N-METHYL PYRROLIDONE (9.6%)	872-50-4	NE

. . . . . End of # 21-36034 . . . . . .

21-360294 RU-6125 MSDS Date: 7/97
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:LIVER, KIDNEY
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TRIETHYLAMINE	121-44-8	10 PPM
2 N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 21-36029 . . . . . .

21-360308 RU-7920 MSDS Date: 10/91
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE
2 TRIETHYLAMINE	121-44-8	10 PPM

. . . . . End of # 21-36030 . . . . . .

01-000319 RU-7921 MSDS Date: 5/90
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 N-METHYL PYRROLIDONE	872-50-4	NE
2 TRIETHYLAMINE	121-44-8	10 PPM

. . . . . End of # 01-00031 . . . . . .

13-000166 RYKO-SAFE GREASE NO. 1483 MSDS Date: 9/93
Sup/Manuf: AMOCO OIL COMPANY Cat: OIL
Haz/Non-Haz:H Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 HYDROTREATED HVY PARAFFINIC DISTILLATE	64742-54-7	
2 POLYUREA THICKNER		

. . . . . End of # 13-00016 . . . . . .

13-000153 RYKOTAC EP GREASE MSDS Date: 5/95
Sup/Manuf: AMOCO OIL COMPANY Cat: GREASE
Haz/Non-Haz:N Depts: 13 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 13-00015 . . . . . .

04-000910 SALCHLOR 45 MSDS Date: 6/89
Sup/Manuf: SALEM OIL & GREASE Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN, INGESTION
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM METABISULFITE	7681--57-4	5 MG/M3
2 SULFOCHLORINATED PARAFFIN		NE
3 NONYLPHENOXYPOLYETHOXYETHANOL	26027-38-3	NE

. . . . . End of # 04-00091 . . . . . .

04-000735 SALFYL 89 MSDS Date: 2/90
Sup/Manuf: DODGE, WILLIAM J. CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00073 . . . . . .

19-240598 SANDODERM BROWN DGV MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NONE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (50%; CR+3 1.5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24059 . . . . . .

19-240597 SANDODERM BROWN G POWDER MSDS Date: 5/97
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (50%; CR+3 10%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24059 . . . . . .

04-001063 SANDODERM BROWN R LIQUID MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD. (25%) (CR 1.5%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00106 . . . . . .

04-000085 SANDODERM ORANGE G LIQUID MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT COMPOUND 35% (CO 2%)	7440-48-4	0.1 MG/M3

. . . . . End of # 04-00008 . . . . . .

04-001064 SANDODERM YELLOW R POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 COBALT CPD. (60%) (CO 5%)	7440-48-4	0.05 MG/M3

. . . . . End of # 04-00106 . . . . . .

04-001100 SANDOLAN CYANINE N-6B POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00110 . . . . . .

04-000373 SANDOLAN MILLING BLUE N-BL POWDER 050 MSDS Date: 5/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00037 . . . . . .

04-000267 SANDOLIX HSB LIQUID MSDS Date: 6/86
Sup/Manuf: CLARIANT CORP. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 MINERAL OIL MIST	8012-95-1	5 MG/M3
2 DIETHYLENE GLYCOL MONOETHYL ETHER	111-90-0	NE

. . . . . End of # 04-00026 . . . . . .

04-000268 SANDOLIX SB-3 LIQUID MSDS Date: 6/86
Sup/Manuf: CLARIANT CORP. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 MINERAL OIL MIST	8012-95-1	5 MG/M3
2 DIETHYLENE GLYCOL MONOETHYL ETHER	111-90-0	NE

. . . . . End of # 04-00026 . . . . . .

04-000269 SANDOLIX SPG LIQUID MSDS Date: 6/86
Sup/Manuf: CLARIANT CORP. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 MINERAL OIL MIST	8012-95-1	5 MG/M3

. . . . . End of # 04-00026 . . . . . .

04-001083 SANDOTAN DSM POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: TOXIC
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 FORMALDEHYDE (0.3%)	50-00-0	
2 ADIPIC ACID	124-04-9	

. . . . . End of # 04-00108 . . . . . .

19-240453 SANDOZOL BLACK RT POWDER MSDS Date: 3/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24045 . . . . . .

19-240555 SANDOZOL BROWN FCT POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24055 . . . . . .

04-001010 SANSOLIX WWL PASTE MSDS Date: 11/96
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ETHOXYLATED C12-20 ALCOHOLS	68526-94-3	NE
2 HEXYLENE GLYCOL	107-41-5	25 PPM

. . . . . End of # 04-00101 . . . . . .

21-360351 SCOTCHGARD FC 905 MSDS Date: 6/89
Sup/Manuf: 3 M Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: J Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 1,1,1-TRICHLOROETHANE (90%)	71-55-6	350 PPM

. . . . . End of # 21-36035 . . . . . .

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44-000159  SCOTCHGARD FC-101                          MSDS Date:  9/92
Sup/Manuf: 3 M                                  Cat:
Haz/Non-Haz:H  Depts:    14                 Targ:EYE, LUNG, SKIN,INGEST
               Plant:
Personal Health Code: B  Indexes-> Health: 1  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: N
   Component Information                     CAS Number   Threshold
1  PERFLUORO COMPOUNDS                       86508-42-1
. . . . . . . . . . . . End of # 44-00015 . . . . . . . . . . . . . . . . .
21-360462  SCOTCHGARD FC-228                          MSDS Date:  6/98
Sup/Manuf: 3 M                                  Cat: SOLVENT
Haz/Non-Haz:H  Depts:       21              Targ:EYE, LUNG, SKIN,INGEST
               Plant:
Personal Health Code: B  Indexes-> Health: 2  Fire: 3  Reactivity: 1
SARA III?: Y  EPA: 1   4     Experimental ?: N
   Component Information                     CAS Number   Threshold
1  FLUOROCHEMICAL SALT
2  ISOPROPYL ALCOHOL                         67-63-0      400 PPM
3  2-BUTOXYETHANOL (18%)                     111-76-2     25 PPM
. . . . . . . . . . . . End of # 21-36046 . . . . . . . . . . . . . . . . .
04-000764  SCOTCHGARD FC-3537                         MSDS Date:  1/90
Sup/Manuf: 3 M                                  Cat: SOLVENT
Haz/Non-Haz:H  Depts:    14                 Targ:EYE, LUNG, SKIN,INGEST
               Plant:
Personal Health Code: B  Indexes-> Health: 3  Fire: 4  Reactivity: 0
SARA III?:    EPA: 1 2  4    Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  HEPTANE                                   142-82-5
2  FLUOROCHEMICAL POLYMER
3  ETHYL ACETATE                             141-78-6
1  HEPTANE                                   142-82-5     400 PPM
2  ETHYL ACETATE                             141-73-6     400 PPM
. . . . . . . . . . . . End of # 04-00079 . . . . . . . . . . . . . . . . .
04-001205  SCOTCHGARD FC-3583                         MSDS Date:  8/96
Sup/Manuf: YORKSHIRE NACHEM, INC.               Cat:
Haz/Non-Haz:H  Depts:    14                 Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code:    Indexes-> Health:    Fire:    Reactivity:
SARA III?:    EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  FLUOROCHEMICAL ESTER                      SECRET
2  PROPYLENE GLYCOL                          57-55-6
3  ADDITIVES                                 SECRET
4  TRIETHANOLAMINE                           102-71-6
. . . . . . . . . . . . End of # 04-00120 . . . . . . . . . . . . . . . . .
04-000773  SCOTCHGARD FX-3572                         MSDS Date:
Sup/Manuf: 3 M                                  Cat:
Haz/Non-Haz:H  Depts:    14                 Targ:EYE, LUNG, SKIN
               Plant:
Personal Health Code: B  Indexes-> Health: 2  Fire: 1  Reactivity: 0
SARA III?:    EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   EMULSIFIERS
1  WATER                                     7732-18-5
2  FLUOROALIPHATIC POLYMER
3  SORBITAN,MONO-9-OCTADECENOATE,POLY(OXY-
4  1,3-DIOXAN-4-01,2,6-DIMETHYL-,ACETATE     828-00-2
. . . . . . . . . . . . End of # 04-00077 . . . . . . . . . . . . . . . . .
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19-120559 SCOTCHGARD FX-3573 MSDS Date: 3/99
Sup/Manuf: HODGSON CHEM. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHYLENE GLYCOL (8%)	107-21-1	50 PPM
2 ETHYL ACETATE	141-78-6	400 PPM
3 TOLUENE (0.5%)	108-88-3	

. . . . . End of # 19-12055 . . . . . .

04-000792 SELLA FAST BROWN HG MSDS Date: 12/92
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 COPPER CPD (55%)	7440-50-8	

. . . . . End of # 04-00079 . . . . . .

04-000851 SELLA PENETRATING BLACK E MSDS Date: 1/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00085 . . . . . .

19-240270 SELLACRON BLUE R MSDS Date: 1/84
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24027 . . . . . .

19-240551 SELLAFAST BLACK BR MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD.(75%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24055 . . . . . .

01-000492 SELLAFAST BLACK BR LIQ MSDS Date: 2/91
Sup/Manuf: TFL Cat: DYE
Haz/Non-Haz:N Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SELLAFAST BLACK BR A.E. (33%)	57693-14-8	

. . . . . End of # 01-00049 . . . . . .

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04-000719  SELLAFAST BLACK FS                          MSDS Date:  7/92
Sup/Manuf: TFL                                    Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                   Targ:LUNG, SKIN
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00071 . . . . . . . . . . . . . . . . .
19-240605  SELLAFAST BLACK HS-02                       MSDS Date:  4/97
Sup/Manuf: TFL                                    Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14  19               Targ:NO KNOWN HAZARDS
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 0  Reactivity: 0
SARA III?: N  EPA:           Experimental ?:
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 19-24060 . . . . . . . . . . . . . . . . .
01-000497  SELLAFAST BLACK M LIQ                       MSDS Date: 10/93
Sup/Manuf: TFL                                    Cat: DYE
Haz/Non-Haz:N  Depts:       21                Targ:LUNG, SKIN
               Plant:
Personal Health Code: B  Indexes-> Health: 0  Fire: 1  Reactivity: 0
SARA III?: Y  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  CHROME CPD (19.8%)                        57693-14-8
1  CHROMIUM CPD (20%)                        7440-47-3    0.5 MG/M3
. . . . . . . . . . . . End of # 04-00064 . . . . . . . . . . . . . . . . .
04-000053  SELLAFAST BLUE 4GL 250                      MSDS Date: 11/97
Sup/Manuf: TFL                                    Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                   Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 1  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  AZO DYE MIXTURE
. . . . . . . . . . . . End of # 04-00005 . . . . . . . . . . . . . . . . .
04-000924  SELLAFAST BROWN 2H 150                      MSDS Date:  6/93
Sup/Manuf: TFL                                    Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                   Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00092 . . . . . . . . . . . . . . . . .
04-000940  SELLAFAST BROWN CB                          MSDS Date:  6/92
Sup/Manuf: TFL                                    Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                   Targ:N/A
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00094 . . . . . . . . . . . . . . . . .
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04-000801  SELLAFAST BROWN CR                          MSDS Date:  7/93
Sup/Manuf: TFL                                   Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                  Targ:LUNG, SKIN
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00080 . . . . . . . . . . . . . . . . .
04-000051  SELLAFAST BROWN DB                          MSDS Date:  7/98
Sup/Manuf: TFL                                   Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14                  Targ:NO INFORMATION REPORTE
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
1  AZO DYE MIXTURE
. . . . . . . . . . . . End of # 04-00005 . . . . . . . . . . . . . . . . .
04-000925  SELLAFAST BROWN DGR                         MSDS Date:  8/93
Sup/Manuf: TFL                                   Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                  Targ:
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: Y
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 04-00092 . . . . . . . . . . . . . . . . .
19-240552  SELLAFAST BROWN DR                          MSDS Date:  6/93
Sup/Manuf: TFL                                   Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14                  Targ:N/A
               Plant:
Personal Health Code: E  Indexes-> Health: 0  Fire: 1  Reactivity: 0
SARA III?: N  EPA:           Experimental ?: N
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 19-24055 . . . . . . . . . . . . . . . . .
19-240563  SELLAFAST BROWN HC                          MSDS Date:  8/93
Sup/Manuf: TFL                                   Cat: DYESTUFF
Haz/Non-Haz:N  Depts:    14  19              Targ:LUNG, SKIN
               Plant:
Personal Health Code: E  Indexes-> Health: 2  Fire: 1  Reactivity: 0
SARA III?: N  EPA: 1         Experimental ?: N
   Component Information                     CAS Number   Threshold
   NO HAZARDOUS INGREDIENTS
. . . . . . . . . . . . End of # 19-24056 . . . . . . . . . . . . . . . . .
19-240266  SELLAFAST BROWN HL                          MSDS Date:  1/93
Sup/Manuf: TFL                                   Cat: DYESTUFF
Haz/Non-Haz:H  Depts:    14  19              Targ:LUNG, SKIN
               Plant:
Personal Health Code: E  Indexes-> Health: 2  Fire: 1  Reactivity: 0
SARA III?: Y  EPA: 1         Experimental ?: N
   Component Information                     CAS Number   Threshold
1  COPPER CPD (57%)                          7440-50-8
. . . . . . . . . . . . End of # 19-24026 . . . . . . . . . . . . . . . . .
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19-240553 SELLAFAST BROWN OM MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24055 . . . . . .

19-240267 SELLAFAST ORANGE 2GC MSDS Date: 2/79
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24026 . . . . . .

19-240268 SELLAFAST RED C 200% MSDS Date: 7/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24026 . . . . . .

19-240494 SELLAFAST RED F MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24049 . . . . . .

04-000750 SELLAFAST RED RB MSDS Date: 2/92
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00075 . . . . . .

04-000938 SELLAFLOR BLUE BB MSDS Date: 6/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00093 . . . . . .

04-001211 SELLAFLOR BROWN P MSDS Date: 12/96
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 FORMALDEHYDE (<0.02) 50-00-0
. . . . . End of # 04-00121 . . . . . .
04-001210 SELLAFLOR DARK BROWN P MSDS Date: 12/96
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 FORMALDEHYDE (<0.02) 50-00-0
. . . . . End of # 04-00121 . . . . . .
19-240272 SELLAFLOR GREEN BN MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N
Component Information CAS Number Threshold
1 CHROME CPD (10.8%) 744-47-3
. . . . . End of # 19-24027 . . . . . .
19-240273 SELLAFLOR GREY RLN MSDS Date: 6/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 CHROME CPD (29.9%) 7440-47-3 NE
. . . . . End of # 19-24027 . . . . . .
04-001209 SELLAFLOR HAVANA P MSDS Date: 12/96
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?:
Component Information CAS Number Threshold
1 FORMALDEHYDE (<0.02%) 50-00-0
. . . . . End of # 04-00120 . . . . . .
19-240564 SELLASET BLUE B MSDS Date: 5/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24056 . . . . . .

19-240515 SELLASET BLUE H MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1. CHROMIUM CPD. (30.50%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24051 . . . . . .

01-000495 SELLASET BLUE H LIQ MSDS Date: 2/93
Sup/Manuf: TFL Cat: DYE
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD. (11.7%)	7440-47-3	0.5 MG.M3
2 E-CAPROLACTAM	105-60-2	20 MG/M3

. . . . . End of # 01-00049 . . . . . .

19-240513 SELLASET BROWN H MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (32%)	7440-47-3	0.5 MG/M2
2 COBALT CPD (20.8%)	7440-48-4	

. . . . . End of # 19-24051 . . . . . .

01-000494 SELLASET BROWN H LIQ MSDS Date: 11/93
Sup/Manuf: TFL Cat: DYE
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CHROMIUM CPD. (13.2%)	7440-47-3	0.5 MG/M3
2 COBALT CPD. (10.3%)	7440-48-4	
3 E-CAPROLACTAM	105-60-2	

. . . . . End of # 01-00049 . . . . . .

19-240549 SELLASET BROWN M (C-M) MSDS Date: 8/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 CHROMIUM CPD (82%)	7440-47-3	0.5 MG/M3

. . . . . End of # 19-24054 . . . . . .

01-000667 SELLASET BROWN M LIQ MSDS Date: 8/93
Sup/Manuf: TFL Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 E-CAPROLACTAN	105-60-2	NE
2 CHROMIUM CPD (68.9%)	7440-47-3	0.5 MG/M3

. . . . . End of # 01-00066 . . . . . .

19-240566 SELLASET RED B MSDS Date: 5/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24056 . . . . . .
19-240516 SELLASET RED H MSDS Date: 12/89
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 CR+3 DYE COMPLEX (48%) 7440-47-3
. . . . . End of # 19-24051 . . . . . .
01-000496 SELLASET RED H LIQ MSDS Date: 10/89
Sup/Manuf: TFL Cat: DYE
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y
Component Information CAS Number Threshold
1 CHROMIUM CPD. (22%) 7440-47-3 0.5 MG/M3
. . . . . End of # 01-00049 . . . . . .
19-240565 SELLASET YELLOW B MSDS Date: 5/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24056 . . . . . .
19-240514 SELLASET YELLOW H MSDS Date: 1/94
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 19 Targ:EYE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 COBALT COMPLEX DYE (47%) 7440-48-4
. . . . . End of # 19-24051 . . . . . .
01-000491 SELLASET YELLOW H LIQ MSDS Date: 1/93
Sup/Manuf: TFL Cat: DYE
Haz/Non-Haz:N Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 COBALT CPD (15.4%) 74401-48-4
. . . . . End of # 01-00049 . . . . . .

04-000562 SELLASOL NG LIQUID MSDS Date: 11/91
Sup/Manuf: TFL Cat: MILD ACIDIC
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00056 . . . . . .

04-000810 SELLASOL TN LIQ MSDS Date: 1/92
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM..NAPHTHALENE SULFONIC ACID		

. . . . . End of # 04-00081 . . . . . .

07-000136 SELLATAN CR MSDS Date: 9/97
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 NAPTHALENE SULFONIC ACID	NA	NE

. . . . . End of # 07-00013 . . . . . .

19-120323 SELLATAN FL (IRGATAN FL) MSDS Date: 9/95
Sup/Manuf: TFL Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 FORMIC ACID	64-18-6	9 MG/M3
2 FORMALDEHYDE (0.19%)	50-00-0	2 PPM

. . . . . End of # 19-12032 . . . . . .

01-000493 SELLLASET BROWN M LIQ MSDS Date: 2/93
Sup/Manuf: TFL Cat: DYE
Haz/Non-Haz:H Depts: 21 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 E-CAPROLACTAM	105-60-2	20 MG/M3
2 CHROMIUM CPD (68.9%)	7440-47-3	0.5 MG.M3

. . . . . End of # 01-00049 . . . . . .

04-001039 SILASTOL R 687 MSDS Date: 9/93
Sup/Manuf: STRUKTOL CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 FATTY ALCOHOL POLYGLYCOL ETHER	68439-46-3	

. . . . . End of # 04-00103 . . . . . .

01-000003 SILTOUCH 216-73X MSDS Date: 3/97
Sup/Manuf: YORKSHIRE AMERICAS, INC. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?:
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 01-00000 . . . . . .
11-000111 SILVER NITRATE REAGENT R-07060 MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat: TOXIC
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 3 Experimental ?: N
Component Information CAS Number Threshold
1 SILVER NITRATE (5%) 7761-88-8
. . . . . End of # 11-00011 . . . . . .
01-000883 SIMPLE GREEN MSDS Date: 3/93
Sup/Manuf: SUNSHINE MAKERS, INC. Cat: DEGREASER
Haz/Non-Haz:N Depts: 14 17 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?:
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 01-00088 . . . . . .
44-000161 SOCIUM PHOSPHATE,DIBASIC,ANHYDROUS MSDS Date: 11/85
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 44-00016 . . . . . .
60-120110 SODA ASH (SODIUM CARBONATE) MSDS Date: 9/98
Sup/Manuf: F.M.C. Cat: ALKALI/IRRITANT
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: J Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 SODIUM CARBONATE 497-19-8
. . . . . End of # 60-12011 . . . . . .
19-120354 SODIUM ACETATE MSDS Date: 4/94
Sup/Manuf: NIACET CORPORATION Cat: NON-HAZ
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12035 . . . . . .

60-120111 SODIUM BICARBONATE MSDS Date: 4/98
Sup/Manuf: CHURCH & DWIGHT CO. INC. Cat: MILD ALKALI
Haz/Non-Haz:N Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 60-12011 . . . . . .

04-000270 SODIUM BIFLUORIDE MSDS Date: 3/88
Sup/Manuf: CHEMTECH INDUSTRIES, INC. Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 3 Fire: 0 Reactivity: 1
SARA III?: EPA: 1 2 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM BIFLUORIDE		2.5 MG/M3

. . . . . End of # 04-00027 . . . . . .

07-000109 SODIUM BISULFITE MSDS Date: 11/85
Sup/Manuf: VIRGINIA CHEM. Cat: ALKALI
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM BISULFITE	7681-90-5	0.5 MG/M3

. . . . . End of # 07-00010 . . . . . .

44-000128 SODIUM BORATE MSDS Date: 4/89
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00012 . . . . . .

44-000147 SODIUM CHLORIDE MSDS Date: 8/86
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00014 . . . . . .

60-120109A SODIUM CHLORIDE (SALT) MSDS Date: 8/98
Sup/Manuf: CARGILL SALT Cat: NON-HAZ
Haz/Non-Haz:N Depts: 17 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 60-12010 . . . . . .

60-120109C SODIUM CHLORIDE (SALT) MSDS Date:
Sup/Manuf: MORTON INTERNATIONAL Cat: NON-HAZ
Haz/Non-Haz:N Depts: 14 17 19 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 60-12010 . . . . . .
60-120109B SODIUM CHLORIDE (SALT) MSDS Date: 1/99
Sup/Manuf: MORTON THIOKOL INC. Cat: NON-HAZ
Haz/Non-Haz:N Depts: 17 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 60-12010 . . . . . .
44-000129 SODIUM CITRATE MSDS Date: 11/85
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 44-00012 . . . . . .
60-120112C SODIUM FORMATE MSDS Date: 10/92
Sup/Manuf: AQUALON COMPANY Cat: DUST
Haz/Non-Haz:N Depts: 14 19 Targ:EYE, LUNG, INGESTION
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENT
. . . . . End of # 60-12011 . . . . . .
60-120112A SODIUM FORMATE MSDS Date: 8/98
Sup/Manuf: HERCULES INC. Cat: DUST/IRRITANT
Haz/Non-Haz:H Depts: 14 17 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 MONOPENTAERYTHRITOL 115-77-5
. . . . . End of # 60-12011 . . . . . .
60-120112B SODIUM FORMATE MSDS Date: 2/99
Sup/Manuf: PERSTORP INC. Cat: DUST
Haz/Non-Haz:N Depts: 14 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 60-12011 . . . . . .

44-000170 SODIUM HYDROXIDE PELLETS MSDS Date: 9/97
Sup/Manuf: FISHER SCIENTIFIC Cat: CAUSTIC
Haz/Non-Haz:H Depts: 14 Targ:NONE
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 3 Experimental ?:

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	2 MG/M3

. . . . . End of # 44-00017 . . . . . .

19-120328B SODIUM HYPOCHLORITE (BLEACH) MSDS Date: 3/98
Sup/Manuf: ALEXANDER CHEM. DIV. Cat: STRONG ALKALI
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYPOCHLORITE	7681-52-9	NE

. . . . . End of # 19-12032 . . . . . .

19-120328E SODIUM HYPOCHLORITE (BLEACH) MSDS Date: 10/98
Sup/Manuf: HAVILAND PRODUCTS Cat:
Haz/Non-Haz:H Depts: 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYPOCHLORITE	7681-52-9	NE

. . . . . End of # 19-12032 . . . . . .

44-000169 SODIUM LACTATE (60%) MSDS Date: 6/97
Sup/Manuf: FISHER SCIENTIFIC Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00016 . . . . . .

19-120415 SODIUM METABISULFITE (ANHYDROUS) MSDS Date: 5/96
Sup/Manuf: CALABRIAN CORP. Cat: ACIDIC
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM METABISULFITE	7681-57-4	5 MG/M3
2 SODIUM SULFITE	7757-83-7	5 MG/M3
3 SODIUM SULFATE	7757-82-6	5 MG/M3

. . . . . End of # 19-12041 . . . . . .

44-000105 SODIUM PERBORATE MSDS Date: 4/85
Sup/Manuf: MORTON THIOKOL INC. Cat: OXIDIZING AGENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM PERBORATE	7632-04-4	NE

. . . . . End of # 44-00010 . . . . . .

09-000102 SODIUM PERCARBONATE MSDS Date: 9/87
Sup/Manuf: BURLINGTON CHEMICAL CO., INC. Cat: ALKALI
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM CARBONATE PERXYHYDRATE		NE

. . . . . End of # 09-00010 . . . . . .

44-000165 SODIUM PEROXIDE MSDS Date: 8/85
Sup/Manuf: MALLINCKRODT Cat: TOXIC/OXIDIZER
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 0 Reactivity: 2
SARA III?: N EPA: 1 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM PEROXIDE	1313-60-6	

. . . . . End of # 44-00016 . . . . . .

44-000162 SODIUM PHOSPHATE MONOBASIC MSDS Date: 8/85
Sup/Manuf: MALLINCKRODT Cat:
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 44-00016 . . . . . .

44-000106 SODIUM PHOSPHATE-DI-BASIC (12-HYDRATE) MSDS Date: 10/87
Sup/Manuf: BAKER CHEM. CO.(JT) Cat: SALT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM PHOSPHATE-DI-BASIC (12-HYDRATE)	10039-32-4	NE

. . . . . End of # 44-00010 . . . . . .

19-120356 SODIUM SESQUICARBONATE MSDS Date: 6/98
Sup/Manuf: F.M.C. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 19 Targ:EYE
Plant:
Personal Health Code: J Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SESQUICARBONATE	533-96-0	NE

. . . . . End of # 19-12035 . . . . . .

16-120100 SODIUM SILICO FLUORIDE MSDS Date: 11/85
Sup/Manuf: BROWNING CHEM.CORP. Cat: ALKALI-POISONOUS
Haz/Non-Haz:H Depts: 17 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SILICO FLUORIDE	16893-85-9	2.5MG/M3 FL

. . . . . End of # 16-12010 . . . . . .

09-000119 SODIUM SULFATE, ANHYDROUS MSDS Date: 7/85
Sup/Manuf: PRIOR CHEMICAL Cat:
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM SULFATE	7767-82-6	NE

. . . . . End of # 09-00011 . . . . . .

17-120112 SODIUM SULFHYDRATE MSDS Date: 9/96
Sup/Manuf: PPG IND. Cat: ALKALI-SULFIDE
Haz/Non-Haz:H Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 4
SARA III?: N EPA: 1 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM HYDROSULFIDE	16721-80-5	NE
1 SODIUM SULFHYDRATE	16721-80-5	NE

. . . . . End of # 17-12011 . . . . . .

44-000107 SODIUM SULFIDE MSDS Date: 6/86
Sup/Manuf: MALLINCKRODT Cat: STRONG ALKALI/SULF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SULFIDE	1313-82-2	NE

. . . . . End of # 44-00010 . . . . . .

17-120113 SODIUM SULFIDE MSDS Date: 9/96
Sup/Manuf: PPG IND. Cat: STRONG ALKALI-SULF
Haz/Non-Haz:H Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: J Indexes-> Health: 3 Fire: 0 Reactivity: 4
SARA III?: N EPA: 1 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SULFIDE	1313-82-2	NE

. . . . . End of # 17-12011 . . . . . .

04-000520 SODIUM SULFIDE, FLAKE MSDS Date: 12/90
Sup/Manuf: CHEMICAL PRODUCTS CORP. Cat: TOXIC
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 3
SARA III?: N EPA: 1 3 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM SULFIDE	1313-82-2	NE

. . . . . End of # 04-00052 . . . . . .

19-120401 SODIUM SULFITE MSDS Date: 5/96
Sup/Manuf: GENERAL CHEMICAL Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM SULFITE	7757-83-7	NE

. . . . . End of # 19-12040 . . . . . .

17-120114 SODIUM TETRASULFIDE 34% MSDS Date: 9/96
Sup/Manuf: PPG IND. Cat: ALKALI-SULFIDE
Haz/Non-Haz:H Depts: 17 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: J Indexes-> Health: 3 Fire: 0 Reactivity: 4
SARA III?: N EPA: 1 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SODIUM TETRASULFIDE	12043-39-8	NE

. . . . . End of # 17-12011 . . . . . .

04-000791 SOLIDERMIN BLACK B MSDS Date: 7/92
Sup/Manuf: HOECHST CELANESE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 SOLIDERMIN BLACK B		10 MG/M3

. . . . . End of # 04-00079 . . . . . .

04-000848 SOLOPHENYL BLUE GL 250 MSDS Date: 7/89
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00084 . . . . . .

19-240277 SOLOPHENYL VIOLET A2RL MSDS Date: 2/79
Sup/Manuf: TFL Cat: NON-HAZ DYESTUFF
Haz/Non-Haz:N Depts: 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-24027 . . . . . .

04-000886 SOLOPHHENYL RED 3BL MSDS Date: 6/89
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00088 . . . . . .

04-000145 SPECIAL NIGROSINE WLF UNCUT MSDS Date: 8/86
Sup/Manuf: MOBAY CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00014 . . . . . .

04-000763 SPEEDYE FLUORESCENT ORANGE 3046 MSDS Date: 2/91
Sup/Manuf: YORKSHIRE NACHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00076 . . . . . .

04-000618 SPEEDYE FLUORESCENT YELLOW 3036 MSDS Date: 1/90
Sup/Manuf: PAT-CHEM, INC. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00061 . . . . . .

04-001053 SPRAY DRIED TARA EXTRACT MSDS Date: 8/88
Sup/Manuf: PILAR RIVER PLATE CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00105 . . . . . .

04-000775 SPS-3010 SCOTCHGARD OIL TEST KIT MSDS Date: 3/92
Sup/Manuf: 3 M Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 4 Reactivity: 0
SARA III?: N EPA: 1 2 4 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	N-TETRADECANE	629-59-4	
2	MINERAL OIL	8042-47-5	
3	N-HEXADECANE	544-76-3	
4	N-DODECANE	112-40-3	
5	N-DECANE	124-18-5	
6	N-OCTANE	111-65-9	
7	N-HEPTANE	142-82-5	

. . . . . End of # 04-00077 . . . . . .

04-000774 SPS-3011 SCOTCHGARD AQUEOUS TEST KIT MSDS Date: 3/92
Sup/Manuf: 3 M Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: Indexes-> Health: 1 Fire: 4 Reactivity: 0
SARA III?: Y EPA: 1 2 4 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	ISOPROYL ALCOHOL (10-100%)	67-63-0	400 PPM

. . . . . End of # 04-00077 . . . . . .

04-000423 SPS-4007 3M BRAND TEST STAIN MSDS Date: 4/88
Sup/Manuf: 3 M Cat: DYE
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	FD&C RED #40 DYE	25956-17-6	NE

. . . . . End of # 04-00042 . . . . . .

11-000129 STANNOUS CHLORIDE POWDER R-0602P MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat:
Haz/Non-Haz:H Depts: 11 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 POTASSIUM CHLORIDE	7447-40-7	NE
2 STANNOUS CHLORIDE	7772-99-8	2 MG/M3

. . . . . End of # 11-00012 . . . . . .

04-000459 STRUKTOL UKATAN PRE MSDS Date: 10/89
Sup/Manuf: STRUKTOL CO. Cat: SILICATE
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00045 . . . . . .

04-000205 STUFFING GREASE #1511 MSDS Date: 3/88
Sup/Manuf: REILLY-WHITEMAN INC. Cat: FATLIQUOR
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 PARAFFIN WAX	8002-74-2	2 MG/M3

. . . . . End of # 04-00020 . . . . . .

04-000875 SULFUR BLACK 1 MSDS Date: 1/93
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00087 . . . . . .

11-000112 SULFURIC ACID 0.12N R-0687 MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT/ACID
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 SULFURIC ACID	7664-93-9	

. . . . . End of # 11-00011 . . . . . .

17-120122 SULFURIC ACID 66-BE' (TANK) MSDS Date: 10/96
Sup/Manuf: HAVILAND PRODUCTS Cat: STRONG ACID
Haz/Non-Haz:H Depts: 14 17 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: D Indexes-> Health: 3 Fire: 0 Reactivity: 2
SARA III?: Y EPA: 1 2 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SULFURIC ACID (93%)	7664-93-9	1 MG/M3

. . . . . End of # 17-12012 . . . . . .

44-000108 SULFURIC ACID 96% MSDS Date: 2/99
Sup/Manuf: MALLINCKRODT Cat: STRONG ACID
Haz/Non-Haz:H Depts: 14 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 0 Reactivity: 2
SARA III?: Y EPA: 1 2 3 Experimental ?: N

Component Information	CAS Number	Threshold
1 SULFURIC ACID (96%)	7664-93-9	1 MG/M3

. . . . . End of # 44-00010 . . . . . .

04-000058 SUPRONIL HK BLACK B LIQ. MSDS Date: 9/97
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 DIETHYLENE GLYCOL (1.7%)	111-46-6	
2 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	
3 CHROMIUM CPD. 35% (CR 1.5%)	7440-48-4	

. . . . . End of # 04-00005 . . . . . .

21-360322 SW-701 MSDS Date: 4/93
Sup/Manuf: STAHL FINISH Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:LUNG
Plant:
Personal Health Code: G Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 STODDARD SOLVENT	8052-41-3	100 PPM
2 ISOPROPANOL	67-63-0	400 PPM

. . . . . End of # 21-36032 . . . . . .

04-000844 TACKIFIER 3942 MSDS Date: 2/91
Sup/Manuf: UNION SPECIALTIES Cat: DUST
Haz/Non-Haz:N Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00084 . . . . . .

19-120550 TANAIGAN 3LN MSDS Date: 9/90
Sup/Manuf: MILES INC. Cat:
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12055 . . . . . .

04-000900 TANCOPURE BLACK 3G MSDS Date: 9/92
Sup/Manuf: TANCO CHEMICALS LIMITED Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00090 . . . . . .

04-000899 TANCOPURE BLACK 3X MSDS Date: 6/93
Sup/Manuf: TANCO CHEMICALS LIMITED Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00089 . . . . . .
04-001088 TANCOPURE BROWN 5G MSDS Date: 7/93
Sup/Manuf: TANCO CHEMICALS LIMITED Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00108 . . . . . .
04-001089 TANCOPURE BROWN MF MSDS Date: 7/93
Sup/Manuf: TANCO CHEMICALS LIMITED Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00108 . . . . . .
04-001045 TANFIX AL MSDS Date: 8/93
Sup/Manuf: HOESCHST CORP. Cat:
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00104 . . . . . .
04-000054 TANICOR BLACK MAT MSDS Date: 10/98
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00005 . . . . . .
04-000529 TANICOR BROWN BR MSDS Date: 3/90
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: PIGMENT
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00052 . . . . . .

04-000052 TANICOR BROWN CRVM MSDS Date: 10/98
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00005 . . . . . .
04-000055 TANICOR BROWN THD MSDS Date: 10/98
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00005 . . . . . .
04-001094 TANICOR GREY X25 MSDS Date: 3/96
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00109 . . . . . .
19-120549 TANIGAN BN MSDS Date: 7/88
Sup/Manuf: BAYER CORP. Cat: ACIDIC
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
1 ARYLSULFONIC ACID DERIVATIVE NE
. . . . . End of # 19-12054 . . . . . .
19-120572 TANNESCO H GRANNULES MSDS Date: 8/93
Sup/Manuf: TFL Cat:
Haz/Non-Haz:N Depts: 14 19 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 CHROME CPD (44%) 7440-47-3
. . . . . End of # 19-12057 . . . . . .
04-000441 TARTRAZINE EXT CONC MSDS Date: 11/85
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00044 . . . . . .

44-000168 TCMTB MSDS Date: 11/92
Sup/Manuf: BUCKMAN LABORATORIES INC. Cat: HIGHLY TOXIC
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 2 Reactivity: 2
SARA III?: N EPA: 1 4 Experimental ?: N

	Component Information	CAS Number	Threshold
1	2-(THIOCYANOMETHYLTHIO)BENZOTHIAZOLE	21564-17-0	NE

. . . . . End of # 44-00016 . . . . . .

04-000732 TEMPILABELS MSDS Date: 9/91
Sup/Manuf: BIG THREE INDUSTRIES, INC. Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00073 . . . . . .

04-000611 TEMPILABELS MSDS Date: 11/88
Sup/Manuf: TEMPIL DIVISION Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: A Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00061 . . . . . .

04-000023 TERGOLIX CA LIQUID MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NONE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00088 . . . . . .

04-001065 TERGOTAN EF LIQUID MSDS Date: 12/95
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	PROTEIN HYDROLYZATES, SODIUM SALTS	68188-39-6	NE
2	FORMALDEHYDE (0.02%)	50-00-0	0.75 PPM
3	SODIUM ACETATE	127-09-3	NE
4	CHROMIUM CPD. (0.5%) (CR 0.4%)	7440-47-3	0.5 MG/M3

. . . . . End of # 04-00106 . . . . . .

04-001073 TERGOTAN FG POWDER MSDS Date: 11/95
Sup/Manuf: CLARIANT CORP. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	FORMALDEHYDE (1%)	50-00-0	0.75 MG/M3

. . . . . End of # 04-00107 . . . . . .

44-000109 TETRADECANE MSDS Date: 5/86
Sup/Manuf: EASTMAN KODAK Cat: OIL
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TETRADECANE	64036-86-8	NE

. . . . . End of # 44-00010 . . . . . .

04-000729 TETRAPOL FGL-G MSDS Date: 12/85
Sup/Manuf: TFL Cat:
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 AMMONIUM LAURYL SULFATE	2235-54-3	NE

. . . . . End of # 04-00072 . . . . . .

04-000210 TETRAPOL SAF-G MSDS Date: 4/91
Sup/Manuf: TFL Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ALKYL ETHOXYSULFATE		NE
2 SODIUM SULFATE	7757-82-6	
3 GLYGOL ETHERS (17%)		

. . . . . End of # 04-00021 . . . . . .

19-120365 TEXOL C MSDS Date: 1/97
Sup/Manuf: SALEM OIL & GREASE Cat: NON-HAZ
Haz/Non-Haz:N Depts: 19 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 19-12036 . . . . . .

04-000908 TEXOL KD MSDS Date: 3/91
Sup/Manuf: SALEM OIL & GREASE Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:SKIN, INGESTION
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00090 . . . . . .

01-000435 THINNER EP MSDS Date: 11/90
Sup/Manuf: BASF Cat: SOLVENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 2-PROPOXYETHANOL (100%)	2807-30-9	20 PPM

. . . . . End of # 01-00043 . . . . . .

04-000426 THYMOLPHTHALEIN MSDS Date: 4/87
Sup/Manuf: RICCA CHEM. CO. Cat: SOLVENT
Haz/Non-Haz:H Depts: 14 Targ:LUNG,CNS,LIVER,PANCREA
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 4 Reactivity: 1
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 ETHANOL	64-17-5	1900 MG/M3
2 METHANOL	67-56-1	260 MG/M3

. . . . . End of # 04-00042 . . . . . .

04-000927 TITANIUM DIOXIDE MSDS Date: 6/93
Sup/Manuf: C.A.INTERNATIONAL, INC. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 TITANIUM DIOXIDE	1317-80-2	

. . . . . End of # 04-00092 . . . . . .

44-000103 TITANIUM TRICHLORIDE MSDS Date: 10/88
Sup/Manuf: FISHER SCIENTIFIC Cat:
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 TITANIUM TRICHLORIDE	7705-07-9	NE

. . . . . End of # 44-00010 . . . . . .

11-000108 TOTAL ALKALINITY INDICATOR R-0645 MSDS Date: 2/92
Sup/Manuf: TAYLOR TECH. Cat: IRRITANT-ALKALI
Haz/Non-Haz:H Depts: 11 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 BROMCRESOL GREEN	76-60-8	
2 METHYL RED	493-52-7	
3 SODIUM CARBONATE	497-19-8	
4 SODIUM HYDROXIDE	1310-73-5	

. . . . . End of # 11-00010 . . . . . .

04-000181 TRIAMINE PRA MSDS Date: 1/86
Sup/Manuf: ICI AMERICAS INC. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TETRAETHYLENEPENTAMINE	112-57-2	NE

. . . . . End of # 04-00018 . . . . . .

07-000102D TRISODIUM PHOSPHATE MSDS Date: 7/93
Sup/Manuf: F.M.C. Cat: ALKALI
Haz/Non-Haz:H Depts: 14 17 19 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 TRISODIUM PHOSPHATE	76-54-9	5 MG/M3

. . . . . End of # 07-00010 . . . . . .

07-000102A TRISODIUM PHOSPHATE MSDS Date: 11/94
Sup/Manuf: RHONE-POULENC BASIC CHEMICALS CO. Cat: ALKALI
Haz/Non-Haz:H Depts: 12 14 17 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

	Component Information	CAS Number	Threshold
1	TRISODIUM PHOSPHATE DODECAHYDRATE	10101-89-0	

. . . . . End of # 07-00010 . . . . . .

04-000273 TRITON N-101 SURFACTANT MSDS Date: 4/90
Sup/Manuf: ROHM & HAAS Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 14 Targ:EYE, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	NONYLPHENOXYPOLYETHOXY ETHANOL	68412-54-4	NONE
2	POLYETHYLENE GLYCOL	25322-68-3	NONE

. . . . . End of # 04-00027 . . . . . .

19-120552 TRONOX AX MSDS Date: 10/98
Sup/Manuf: BAYER CORP. Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	TITANIUM DIOXIDE	1317-70-0	5 MG/M3

. . . . . End of # 19-12055 . . . . . .

04-000671 TRU-TAN OAD MSDS Date: 3/89
Sup/Manuf: PILAR INC. Cat: SYNTAN
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 1 Reactivity: 1
SARA III?: N EPA: 1 2 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	NAPHTHALENE	9084-06-4	10 PPM
2	FORMALDEHYDE	50-00-0	1 PPM

. . . . . End of # 04-00067 . . . . . .

07-000118 TRU-TAN RTN MSDS Date: 3/88
Sup/Manuf: PILAR INC. Cat: ACIDIC
Haz/Non-Haz:H Depts: 17 Targ:EYE, SKIN
Plant:
Personal Health Code: D Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: EPA: 1 Experimental ?: Y

	Component Information	CAS Number	Threshold
1	PHENOL	108-95-2	5 PPM
2	FORMALDEHYDE	50-00-0	5 PPM

. . . . . End of # 07-00011 . . . . . .

04-000804 TRUPON OSL MSDS Date: 9/91
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
	NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00080 . . . . . .

04-000706 TRUPONOL FL1 MSDS Date: 3/91
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: FATLIQUOR
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00070 . . . . . .
04-000714 TRUPOTAN R92 MSDS Date: 8/91
Sup/Manuf: KEYSTONE ANILINE CORP. Cat:
Haz/Non-Haz:N Depts: 19 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00071 . . . . . .
04-000033 TRYCHEM SAFORM ACID 930 MSDS Date: 5/96
Sup/Manuf: SENTRY/CUSTOM SERVICES CORP. Cat: STRONG ACID
Haz/Non-Haz:H Depts: Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 0 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 ACID pH ADJUSTMENT SOLUTION
. . . . . End of # 04-00003 . . . . . .
19-120579 TS POWDER MSDS Date: 4/92
Sup/Manuf: ORIGINAL BRADFORD SOAP Cat:
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12057 . . . . . .
19-240574 TWILIGHT ACID BLACK 10BR 126% MSDS Date: 5/97
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24057 . . . . . .
19-240571 TWILIGHT ACID BLACK WA MSDS Date: 4/97
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 19 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-24057 . . . . . .

04-001095 TWILIGHT ACID ORANGE 2G CRYSTALS MSDS Date: 5/95
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HASZARDOUS INGREDIENTS
. . . . . End of # 04-00109 . . . . . .
13-000125 UCON HEAT TRANSFER (FLUID 500) MSDS Date: 12/89
Sup/Manuf: UNION CARBIDE Cat: MILD ALKALI
Haz/Non-Haz:H Depts: 13 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
1 POLYALKYLENE GLYCOL NE
. . . . . End of # 13-00012 . . . . . .
04-000014 UKAPHOB WHITE 321 MSDS Date: 10/93
Sup/Manuf: SCHILL & SEILACHER Cat: SOLVENT BASE
Haz/Non-Haz:H Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2 NE
. . . . . End of # 04-00001 . . . . . .
04-000015 UKATAN AG MSDS Date: 10/93
Sup/Manuf: SCHILL & SEILACHER Cat: RESIN AGENT
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00001 . . . . . .
04-001092 UKATAN AG MSDS Date: 10/93
Sup/Manuf: STRUKTOL CO. Cat:
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 RESIN TANNING AGENT
. . . . . End of # 04-00109 . . . . . .
04-000012 UKATAN GM MSDS Date: 6/91
Sup/Manuf: SCHILL & SEILACHER Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00001 . . . . . .

04-000601 UKATAN PRE MSDS Date: 3/89
Sup/Manuf: STRUKTOL CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00060 . . . . . .
04-000013 UKATAN SLH MSDS Date: 7/92
Sup/Manuf: SCHILL & SEILACHER Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO INFORMATION REPORTED
. . . . . End of # 04-00001 . . . . . .
04-000813 UKECRYL 7288 MSDS Date: 1/90
Sup/Manuf: UNION SPECIALTIES Cat:
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 N-METHYL PYRROLIDONE 872-50-4 NE
. . . . . End of # 04-00081 . . . . . .
04-000785 UKETAN GG MSDS Date: 8/90
Sup/Manuf: UNION SPECIALTIES Cat: MILD ACIDIC
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00078 . . . . . .
19-120573 UL BLEND MSDS Date: 6/97
Sup/Manuf: PILAR RIVER PLATE CORP. Cat:
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12057 . . . . . .
17-120117 UNHAIRING ASSIST FR 62 MSDS Date: 4/96
Sup/Manuf: BAYER CORP. Cat: ALKALI
Haz/Non-Haz:H Depts: 17 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 3 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N
Component Information CAS Number Threshold
1 ALIPHATIC AMINE (30%) TRADE SECRET 3 PPM
. . . . . End of # 17-12011 . . . . . .

19-120367 UNI-SLIP 3958 MSDS Date: 6/90
Sup/Manuf: UNION SPECIALTIES Cat: NUISANCE DUST
Haz/Non-Haz:N Depts: 19 Targ:LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12036 . . . . . .
04-000548 UNIFYL B MSDS Date: 12/90
Sup/Manuf: UNION SPECIALTIES Cat: IRRITANT
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00054 . . . . . .
04-000552 UNIFYL CF MSDS Date: 5/90
Sup/Manuf: UNION SPECIALTIES Cat: IRRITANT
Haz/Non-Haz:N Depts: 14 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00055 . . . . . .
19-120602 UNIFYL LQ2 MSDS Date: 3/98
Sup/Manuf: UNION SPECIALTIES Cat:
Haz/Non-Haz:N Depts: 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 19-12060 . . . . . .
20-120103 UNIPASTE 4022 MSDS Date: 3/98
Sup/Manuf: UNION SPECIALTIES Cat: NON-HAZ
Haz/Non-Haz:N Depts: 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 20-12010 . . . . . .
04-000065 UNIPASTE S67-79 MSDS Date: 3/98
Sup/Manuf: UNION SPECIALTIES Cat: NUISANCE DUST
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00006 . . . . . .

04-000227 UNIPEL WR MSDS Date: 6/88
Sup/Manuf: UNION SPECIALTIES Cat: WAX
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 ZIRCONIUM ACETATE	7440-67-2	5 MG/M3

. . . . . End of # 04-00022 . . . . . .

01-000878 UNISPERSE BLACK C-E2N LIQ MSDS Date: 2/93
Sup/Manuf: TFL Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 CARBON BLACK	1333-86-4	3.5 MG/M3

. . . . . End of # 01-00087 . . . . . .

09-000110 UNITANE ANATASE TITANIUM DIOXIDE PIGMENT MSDS Date: 9/85
Sup/Manuf: KEMIRA Cat: PIGMENT
Haz/Non-Haz:H Depts: 14 19 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 0 Fire: 0 Reactivity: 0
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 TITANIUM DIOXIDE	13463-67-7	10 MG/M3
2 ALUMINUM HYDROXIDE	21645-51-2	10 MG/M3
3 SILICA	7631-86-9	6 MG/M3

. . . . . End of # 09-00011 . . . . . .

19-120395 UNIWAX W MSDS Date: 4/98
Sup/Manuf: UNION SPECIALTIES Cat: IRRITANT DUST
Haz/Non-Haz:H Depts: 19 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 MAGNESIUM SILICATE HYDRATE		

. . . . . End of # 19-12039 . . . . . .

04-000882 URANINE CONC MSDS Date: 2/93
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
1 SODIUM HYDROXIDE	1310-73-2	

. . . . . End of # 04-00088 . . . . . .

13-000130 V-BELT COND. MSDS Date: 2/89
Sup/Manuf: PREMIER INDUSTRIAL Cat: SOLVENT-BASE
Haz/Non-Haz:H Depts: 13 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 3 Fire: 1 Reactivity: 1
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 1,1,1-TRICHLOROETHANE	71-55-6	350 PPM
2 PROPANE	74-98-6	1000 PPM
3 ISOBUTANE	75-28-5	1000 PPM

. . . . . End of # 13-00013 . . . . . .

21-360304 VF DYE CONC. BLACK R MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 2-PROPOXYETHANOL (85%)	2807-30-9	NE
2 CI ACID BLACK 63 (1 % CR+3)	7440-47-3	0.5 MG/M3

. . . . . End of # 21-36030 . . . . . .

21-360321 VF DYE CONC. BLUE LB MSDS Date: 12/94
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: G Indexes-> Health: 3 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 2-PROPOXYETHANOL (95%)	2807-30-9	NE
2 CI SOLVENT BLUE 67 (0.5% CU+2)	7440-50-8	NE

. . . . . End of # 21-36032 . . . . . .

21-360306 VF DYE CONC. BROWN 5R MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 2-PROPOXYETHANOL (85%)	2807-30-9	NE
2 CI ACID RED 227 (1.5% CO+3)	7440-48-4	0.05 MG/M3

. . . . . End of # 21-36030 . . . . . .

21-360302 VF DYE CONC. BROWN R MSDS Date: 12/94
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 2-PROPOXYETHANOL (75%)	2807-30-9	NE
2 CI ACID BROWN 50 (1% CO+3)	7440-48-4	0.05 MG/M3

. . . . . End of # 21-36030 . . . . . .

21-360325 VF DYE CONC. NAVY BLUE R MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: F Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 CI ACID VIOLET 74 (0.8% CO+3)	7440-48-4	NE
2 CI ACID BLACK 63 (0.5% CR+3)	7440-47-3	0.5 MG/M3
3 2-PROPOXYETHANOL (30%)	2807-30-9	NE
4 BUTYL CARBITOL (30%)	112-34-5	NE
5 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 PPM
6 N-METHYL PYRROLIDONE	872-50-4	NE

. . . . . End of # 21-36032 . . . . . .

21-360344 VF DYE CONC. ORANGE R MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 2-PROPOXYETHANOL (75%)	2807-30-9	NE
2 CI ACID ORANGE 89 (1% CR+3)	7440-47-3	0.5 MG/M3

. . . . . End of # 21-36034 . . . . . .

01-000175 VF DYE CONC. RED G MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, SKIN
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID RED 226 (1% CR+3)	7440-47-3	0.5 MG.M3
2 2-PROPOXYETHANOL (75%)	2807-30-9	NE

. . . . . End of # 01-00017 . . . . . .

21-360320 VF DYE CONC. RUBINE B MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 2-PROPOXYETHANOL (75%)	2807-30-9	NE
2 CI ACID RED 296 (1% CO+3)	7440-48-4	0.1 MG/M3

. . . . . End of # 21-36032 . . . . . .

21-360307 VF DYE CONC. YELLOW G MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 2-PROPOXYETHANOL (85%)	2807-30-9	NE
2 CI ACID YELLOW 59 (1% CR+3)	7440-47-3	0.5 MG/M3

. . . . . End of # 21-36030 . . . . . .

21-360303 VF DYE CONC. YELLOW R MSDS Date: 3/90
Sup/Manuf: BASF Cat: PIGMENT
Haz/Non-Haz:H Depts: 21 Targ:EYE, LUNG, SKIN,INGEST
Plant:
Personal Health Code: G Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: Y EPA: 1 Experimental ?: N

Component Information	CAS Number	Threshold
1 CI ACID YELLOW 119 (1% CO +3)	7440-48-4	0.05 MG/M3
2 2-PROPOXYETHANOL (30%)	2807-30-9	BE
3 BUTYL CARBITOL (30%)	112-34-5	NE
4 PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 PPM

. . . . . End of # 21-36030 . . . . . .

04-000859 VILMACOR BLACK SB 200% MSDS Date: 12/92
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00085 . . . . . .

04-000861 VILMACOR BROWN 5G MSDS Date: 1/93
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00086 . . . . . .
04-000638 VILMACOR BROWN DS MSDS Date: 1/93
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00063 . . . . . .
04-000862 VILMACOR BROWN HBR MSDS Date: 1/93
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00086 . . . . . .
04-000860 VILMACOR HAVANE CGR MSDS Date: 1/93
Sup/Manuf: TWILIGHT COLOR & CHEM. CO. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 0 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00086 . . . . . .
04-001091 VINKOL GFA MSDS Date: 6/94
Sup/Manuf: STRUKTOL CO. Cat:
Haz/Non-Haz:N Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: Indexes-> Health: Fire: Reactivity:
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INFORMATION
. . . . . End of # 04-00109 . . . . . .
04-000574 VIOLAMINE SUB NEW MSDS Date: 12/90
Sup/Manuf: KEYSTONE ANILINE CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 1
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
1 MINERAL OIL 8012-95-1 5 MG/M3
. . . . . End of # 04-00057 . . . . . .

19-120603 VITA-SAN 10 MSDS Date: 6/98
Sup/Manuf: BLUMBERG CO. INC. Cat: SOLVENT BASE
Haz/Non-Haz:H Depts: 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: Y EPA: Experimental ?:

	Component Information	CAS Number	Threshold
1	ORTHO-PHENYLPHENOL (12%)	90-43-7	NE
2	VEGETABLE OIL		NE
3	SOLVENT	8052-41-3	NE

. . . . . End of # 19-12060 . . . . . .

19-120465 VITASOL #10 MSDS Date: 11/97
Sup/Manuf: BLUMBERG CO. INC. Cat: SOLVENT
Haz/Non-Haz:H Depts: 19 Targ:LUNG, SKIN
Plant:
Personal Health Code: G Indexes-> Health: 1 Fire: 2 Reactivity: 0
SARA III?: N EPA: 1 Experimental ?: N

	Component Information	CAS Number	Threshold
1	SOLVENT	8052-41-3	NE
2	VEGETABLE OIL	8001-22-7	NE
3	ORTHOOO-PHENYLPHENOL (12%)	90-43-7	NE

. . . . . End of # 19-12046 . . . . . .

04-001132 VITROLAN BLACK WA POWDER MSDS Date: 5/97
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: Y

	Component Information	CAS Number	Threshold
1	CHROME CPD (74%; CR 6.5%)	7440-47-3	

. . . . . End of # 04-00113 . . . . . .

60-120102 WAYNE TAN 175 (CHROME LIQUOR) MSDS Date: 1/99
Sup/Manuf: ELEMENTIS LTP INC. Cat: ACIDIC
Haz/Non-Haz:H Depts: 14 17 19 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 0 Reactivity: 0
SARA III?: Y EPA: 1 2 Experimental ?: N

	Component Information	CAS Number	Threshold
1	BASIC CHROMIUM SULFATE (38.7%)	7440-47-3	0.15 MG/M3
2	ALUMINUM SULFATE (3%)	10043-01-3	3 PPM
3	SODIUM SULFATE (14%)	7767-82-6	

. . . . . End of # 60-12010 . . . . . .

13-000168 WAYTAC OIL NO. 68 MSDS Date: 5/95
Sup/Manuf: AMOCO OIL COMPANY Cat: OIL
Haz/Non-Haz:N Depts: 13 Targ:NO INFORMATION REPORTE
Plant:
Personal Health Code: B Indexes-> Health: 0 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
	NO HAZARDOUS INDREDIENTS		

. . . . . End of # 13-00016 . . . . . .

21-360492 WD-3273 MSDS Date: 1/98
Sup/Manuf: STAHL USA Cat: SOLVENT BASE
Haz/Non-Haz:H Depts: 21 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

	Component Information	CAS Number	Threshold
1	AMMONIUM HYDROXIDE (0.3%)	1336-21-6	25 PPM
2	1-METHYL-2-PYRROLIDONE (7.2%)	872-50-4	NE
3	AMORPHOUS SILICA	7631-86-9	6 MG/M3

21-360492 WD-3273 MSDS Date: 1/98
Sup/Manuf: STAHL USA Cat: SOLVENT BASE
Haz/Non-Haz:H Depts: 21 Targ:NONE ESTABLISHED
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: Y EPA: Experimental ?: N

Component Information	CAS Number	Threshold

. . . . . End of # 21-36049 . . . . . .

13-000126 WD-40 MSDS Date: 4/86
Sup/Manuf: WD-40 CO. Cat: SOLVENT
Haz/Non-Haz:H Depts: 13 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 2 Fire: 2 Reactivity: 0
SARA III?: EPA: Experimental ?: N

Component Information	CAS Number	Threshold
1 PETROLEUM MIXTURE		5 MG/M3

. . . . . End of # 13-00012 . . . . . .

04-000825 X-O ODOR NEUTRALIZER MSDS Date:
Sup/Manuf: SOUTHWELL LABORATORY Cat:
Haz/Non-Haz:N Depts: 14 Targ:
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 2 Reactivity: 1
SARA III?: EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00082 . . . . . .

04-000188 XERODERM WF MSDS Date: 2/92
Sup/Manuf: MOBAY CORP. Cat: SOLVENT/ACIDIC
Haz/Non-Haz:H Depts: 14 Targ:LUNG, SKIN
Plant:
Personal Health Code: B Indexes-> Health: 1 Fire: 3 Reactivity: 1
SARA III?: Y EPA: 1 2 4 Experimental ?: Y

Component Information	CAS Number	Threshold
1 ACETONE (15%)	67-64-1	750 PPM
2 ETHYLENE GLYCOL (5%)	107-21-1	150 PPM
3 ACETIC ACID	64-19-7	10 PPM

. . . . . End of # 04-00018 . . . . . .

04-000698 XYLENE BLUE VSG POWDER MSDS Date: 6/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:H Depts: 14 Targ:EYE, LUNG, SKIN
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 1 Reactivity: 0
SARA III?: N EPA: 1 2 Experimental ?: Y

Component Information	CAS Number	Threshold
1 CI ACID BLUE 9, DISODIUM SALT	3844-45-9	NE
2 MINERAL OIL	8012-95-1	5 MG/M3
3 POSSIBLE CANCER CAUSING AGENT		

. . . . . End of # 04-00069 . . . . . .

04-000700 XYLENE FAST ORANGE G POWDER MSDS Date: 11/89
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y

Component Information	CAS Number	Threshold
NO HAZARDOUS INGREDIENTS		

. . . . . End of # 04-00070 . . . . . .

04-000699 XYLENE LIGHT YELLOW 2G POWDER 110 MSDS Date: 7/90
Sup/Manuf: CLARIANT CORP. Cat: DYESTUFF
Haz/Non-Haz:N Depts: 14 Targ:N/A
Plant:
Personal Health Code: E Indexes-> Health: 1 Fire: 1 Reactivity: 0
SARA III?: N EPA: Experimental ?: Y
Component Information CAS Number Threshold
NO HAZARDOUS INGREDIENTS
. . . . . End of # 04-00069 . . . . . .
19-120399 ZOLDINE ZE MSDS Date: 6/85
Sup/Manuf: ANGUS CHEM. CO. Cat:
Haz/Non-Haz:H Depts: 14 19 Targ:EYE, LUNG
Plant:
Personal Health Code: E Indexes-> Health: 2 Fire: 2 Reactivity: 1
SARA III?: N EPA: Experimental ?: N
Component Information CAS Number Threshold
1 OXAZOLIDINE DERIVATIVE
. . . . . End of # 19-12039 . . . . . .
End of Report

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* # 74 Black Level Coat

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 (LAB)
Address *(Number, Street, City, State, and ZIP Code)*: 123 N. Main Street	Telephone Number for Information: same
Rockford, MI 49351	Date Prepared: 7/21/87
	Signature of Preparer *(optional)*:

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Isopropyl Alcohol CAS # 67-63-0	400ppm			76 %
Solvent Blend				22 %

HMIS Rating
Health 1
Fire 3
Reactivity 0
Pers. Protection B

NA = not available NE = not established

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: dilutable

Appearance and Odor: black liquid with sweet, sharp odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*: NA	Flammable Limits	LEL: NA	UEL: NA

Extinguishing Media: water spray; dry chemical; CO2; 'alcohol' foam

Special Fire Fighting Procedures: wear self-contained breathing apparatus(pressure-demand, MSHA/NIOSH-approved or equivalent) and full protective gear. Use water spray to cool containers.

Unusual Fire and Explosion Hazards: vapors can travel to a source of ignition and flash back. Material can form explosive vapors with air.

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
NA	Unstable	NA	NA
	Stable	NA	

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
NA	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? eye X

Health Hazards *(Acute and Chronic)*

EFFECT OF OVEREXPOSURE:

Inhalation: Vapors/mist can cause headache & irritation of nose and throat.

Skin Contact: irritation upon prolonged contact; can be absorbed through skin

Eye Contact: severely irritation to eyes.

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure

see above

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures

Inhalation: move subject to fresh air; give artificial respiration if needed.

Eye/skin: flush eyes with large amount of water for at least 20 min. See physician if needed. Wash affected skin areas with soap and water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Eliminate ignition sources. Wear respirator for large spills in confined area. Dike and contain spill with inert material. Keep runoffs from sewers.

Waste Disposal Method

consult an expert on disposal of recovered material and ensure conformity to local, state, federal disposal regulations.

Precautions to Be Taken in Handling and Storing

Limit storage of flammable material to approved areas; ground all containers when transferring material;store at ambient temp.

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*

if needed, use self-contained breathing apparatus

Ventilation	Local Exhaust	Special
	explosion-proof local exhaust ventilation a t point of contaminant release	
	Mechanical *(General)*	Other

Protective Gloves impervious Eye Protection chemical splash goggles

Other Protective Clothing or Equipment

eyewash facility, safety shower

Work/Hygienic/Maintenance Practices

Good industrial hygiene should be exercised.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* #448 BLACK EDGING COLOR

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 (LAB)
Address (Number, Street, City, State, and ZIP Code): 123 N Main Street	Telephone Number for Information: same
Rockford, MI 49351	Date Prepared: 5/15/87
	Signature of Preparer (optional):

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Carbon Black CAS # 1333-86-4	3.5 mg/M3			4 %
Proprietary solvent: component A	25 ppm skin			2.5 %
component B	25 ppm skin			1.0 %

NA = not available NE = not established

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: dilutable

Appearance and Odor: black liquid with slight ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used): NA	Flammable Limits	LEL: NA	UEL: NA

Extinguishing Media: use agents suitable for class B fires, inc. CO2, dry chemical and foam

Special Fire Fighting Procedures: water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable	NA	Conditions to Avoid NA
NA	Stable	NA	

Incompatibility (Materials to Avoid) NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur	NA	Conditions to Avoid NA
NA	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? EYE X

Health Hazards (Acute and Chronic)

EFFECT OF OVEREXPOSURE:

INHILATION: Vapors/mist can cause headache, nausea & irritation of nose, throat, lungs.

SKIN CONTACT: irritation to skin upon repeated or prolonged contact.

EYE CONTACT: slightly irritating to eyes.

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure see above

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures

INHILATION: move subject to fresh air; see physician if needed

EYE/SKIN CONTACT: flush eyes with large amount of water for at least 20 minutes.

See physician if needed. Wash affected skin areas with soap and water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Eliminate all ignition sources; small spills may be collected with absorbant materials.

Observe all federal, state, local laws concerning health and environment.

Waste Disposal Method incineration

Precautions to Be Taken in Handling and Storing

keep from freezing; keep from heat, sparks, and open flames

Other Precautions

Section VIII — Control Measures

Respiratory Protection (Specify Type)

NIOSH approved respirator if needed

Ventilation	Local Exhaust good ventilation	Special
	Mechanical (General)	Other

Protective Gloves impervious	Eye Protection safety goggles

Other Protective Clothing or Equipment

safety shower and eye wash should be available wherever this product is used.

Work/Hygienic/Maintenance Practices

Good industrial hygiene should be exercised. Lung deposition of pigment is possible in spray finishing operations as mist or dust. Inflammatory condition in the lung may result.

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* #32987 BONE EDGING COLOR

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 (LAB)
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: same
Rockford, MI 49351	Date Prepared: 5/15/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Titanium Dioxide pigment CAS # 147-14-8	NE	5 mg/M3		16.7 %
Proprietary solvent: component A	25 ppm skin			2.5 %
component B	25 ppm skin			1.0%

remaining ingredients non-hazardous quantity: ammonia, iron oxide pigment. 3,5-dimethyl-4-chlorophenol, morpholine,

NA = not available NE = not established

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: dilutable

Appearance and Odor: beige liquid with slight ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* NA	Flammable Limits	LEL NA	UEL NA

Extinguishing Media: use agents suitable for class B fires, inc. CO2, dry chemical and foam

Special Fire Fighting Procedures: Water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
NA	Unstable	NA	NA
	Stable	NA	

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
NA	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? EYE X

~~Health Hazards (Acute and Chronic)~~

EFFECT OF OVEREXPOSURE

INHILATION: vapors/mist can cause headache, nausea & irritation of nose, throat, lungs.

SKIN CONTACT: irritation to skin upon repeated or prolonged contact.

EYE CONTACT: slightly irritating to eyes

Carcinogenicity: NTP? NA IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure

see above

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures

INHILATION: move subject to fresh air; see physician if needed

EYE/SKIN CONTACT: flush eyes with large amount of water for at least 20 minutes. see physician if needed. Wash affected areas with soap and water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Eliminate all ignition sources; small spills may be collected with absorbant materials. Observe all federal, state, local laws concerning health and environment.

Waste Disposal Method

incineration

Precautions to Be Taken in Handling and Storing

keep from freezing; keep from heat, sparks, and open flames

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* NIOSH approved respirator if needed

Ventilation	Local Exhaust	Special
	good ventilation	
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
impervious	safety goggles

Other Protective Clothing or Equipment

safety shower and eye wash should be available wherever this product is used

Work/Hygienic/Maintenance Practices

Good industrial hygiene should be exercised. Lung deposition of pigment is possible in spray finishing operations as mist or dust. Inflammatory condition in the lung may result.

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* #41487 CAMEL OSTRICH TOUCH-UP

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: (616) 866-9521 ext 66
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: (616) 866-9521 ext 66
Rockford, MI 49351	Date Prepared: 4/28/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
component A	25 ppm skin			2.9%
component B	25 ppm skin			1.2%
Iron oxide pigment (CAS # 1309-37-1)	5 mg/M3			5.2%
Titanium Dioxide (CAS # 147-14-8)	2 mg/M3			3.9%
Ferric Silicate	NE			2.2%

remaining ingredients non-hazardous quantity: ammonia

NA = not available NE = not established

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: dilutable

Appearance and Odor: brown liquid with slight ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*: NA	Flammable Limits: NA	LEL: NA	UEL: NA

Extinguishing Media: use agents suitable for class B fires, inc. CO_2, dry chemical and foam

Special Fire Fighting Procedures: water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable	NA	Conditions to Avoid NA
NA	Stable	NA	

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur	NA	Conditions to Avoid NA
NA	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? X

EFFECT OF OVEREXPOSURE

Inhilation: vapors or spray mist can cause headache, nausea and irritation of nose, throat and lungs.

Skin contact: irritating to skin upon repeated or prolonged contact.

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
Eye contact: slightly irritating to eyes.

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures
Inhilation: move subject to fresh air; see physician if needed
Eye/Skin contact: flush eyes with large amount of water for at least 20 minutes. see physician if needed. Skin: wash area with soap and water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
eliminate all ignition sources; small spills may be collected with absorbant materials. Observe all federal, state and local laws concerning health and environment.

Waste Disposal Method
incineration

Precautions to Be Taken in Handling and Storing
keep from freezing; keep from heat, sparks, and open flames.

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
NIOSH approved respirator if needed

Ventilation	Local Exhaust good ventilation	Special
	Mechanical *(General)*	Other

Protective Gloves impervious	Eye Protection safety goggles

Other Protective Clothing or Equipment

Work/Hygienic/Maintenance Practices
Good industrial hygiene should be exercised. Lung deposition of pigment is possible in spray finishing operations as mist or dust. Inflammatory condition in the lung may result.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* CARBONA SHAMPOO FOR KROUPANA SUEDED PIGSKIN

Section I

NON-HAZARDOUS PRODUCT

Manufacturer's Name: Carbona Products Company	Emergency Telephone Number: (718) 383-5599
Address *(Number, Street, City, State, and ZIP Code)*: 330 Calyer Street	Telephone Number for Information: same
Brooklyn, NY 11222	Date Prepared: 2/6/87
	Signature of Preparer *(optional)*:

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Sodium Lauryl Sulfate (CAS # 151-21-3)	NE			5.4%
Dimethylene Oxide (CAS # 75-21-8)	NE			0.6%
Ethylene Glycol Monobutyl Ether (CAS # 111-76-2)	NE.			2.8%
Aqueous Solution				91.0%
Preservative and Optical Brightener				1.0%

NE = Not established NA = Not available

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: yes

Appearance and Odor: clear solution, no odor pH 8.0-8.5

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA	Flammable Limits	LEL NA	UEL NA

Extinguishing Media: NA

Special Fire Fighting Procedures: NA

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	NA

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? eye X Skin? X Ingestion?

Health Hazards *(Acute and Chronic)* NA

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure NA

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures wash with plenty of water; contact physician if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NA

Waste Disposal Method NA

Precautions to Be Taken in Handling and Storing NA

Other Precautions NA

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* None needed

Ventilation	Local Exhaust	Special
	good ventilation	
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
not needed	goggles

Other Protective Clothing or Equipment none needed

Work/Hygienic/Maintenance Practices good hygiene should be maintained; if skin irritation, wear rubber gloves when handling product Avoid contact with eyes and prolonged contact of UNDILUTED product with skin. Keep away from children.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* CARBONA SHAMPOO FOR KROUPANA SUEDED PIGSKIN

Section I

Manufacturer's Name: CARBONA PRODUCTS CO.	Emergency Telephone Number: (718) 383-5599
Address (Number, Street, City, State, and ZIP Code): 330 CALYER STREET	Telephone Number for Information: SAME
BROOKLYN NY 11222	Date Prepared: revised 3/11/91
	Signature of Preparer (optional):

Section II — Hazardous Ingredients/Identity Information &/or all components

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
DOWANOL EB (formula contains 3% ethylene glycol CAS # 111-76-2)				
STEPHANOL DFS (formula contains less than 3% of this material; Stephanol DFS contains 2% ethyl alcohol; 2% isopropyl alcohol) CAS 64-17-5 CAS 67-63-0				
TINOPAL UNPA (non-hazardous component)				
WATER				

REPORTABLE UNDER SARA TITLE III, SECTION 313: ethylene glycol CAS # 111-76-2

NO CHEMICALS REPORTABLE UNDER CALIFORNIA PROPOSITION 65

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: YES

Appearance and Odor: CLEAR SOLUTION, NO ODOR pH of concentrate 8.0-8.5

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	NA	Flammable Limits	LEL	UEL

Extinguishing Media: NA

Special Fire Fighting Procedures: NA

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	NA

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? Skin? X Ingestion? eye X

Health Hazards *(Acute and Chronic)* NA

Carcinogenicity: NTP? NA IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure NA

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures wash with plenty of water; contact physician if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NA

Waste Disposal Method NA

Precautions to Be Taken in Handling and Storing do not allow sample to freeze

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* none needed

Ventilation	Local Exhaust good ventilation	Special
	Mechanical *(General)*	Other

Protective Gloves not needed Eye Protection glasses/goggles

Other Protective Clothing or Equipment none needed

Work/Hygienic/Maintenance Practices
good hygiene should be maintained; if skin irritation occurs, wear rubber gloves when handling product. Avoid contact with eyes and prolonged contact of UNDILUTED product with skin. KEEP AWAY FROM CHILDREN.

INFORMATION ON THIS MSDS IS BASED ON INFORMATION SUPPLIED BY CARBONA PRODUCTS CO.
IF MORE INFORMATION IS NEEDED, CONTACT CARBONA PRODUCTS CO.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* CARBONA SHAMPOO FOR KROUPANA SUEDED PIGSKIN

Section I

Manufacturer's Name: CARBONA PRODUCTS CO.	Emergency Telephone Number: (718) 383-5599
Address (Number, Street, City, State, and ZIP Code): 330 CALYER STREET	Telephone Number for Information: SAME
BROOKLYN NY 11222	Date Prepared: revised 3/11/91
	Signature of Preparer (optional):

Section II — Hazardous Ingredients/Identity Information &/or all components

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
DOWANOL EB (formula contains 3% ethylene glycol CAS # 111-76-2)				
STEPHANOL DFS (formula contains less than 3% of this material; Stephanol DFS contains 2% ethyl alcohol; 2% isopropyl alcohol) CAS 64-17-5 CAS 67-63-0				
TINOPAL UNPA (non-hazardous component)				
WATER				

REPORTABLE UNDER SARA TITLE III, SECTION 313: ethylene glycol CAS # 111-76-2

NO CHEMICALS REPORTABLE UNDER CALIFORNIA PROPOSITION 65

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: YES

Appearance and Odor: CLEAR SOLUTION, NO ODOR pH of concentrate 8.0-8.5

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	NA	Flammable Limits	LEL	UEL

Extinguishing Media: NA

Special Fire Fighting Procedures: NA

Unusual Fire and Explosion Hazards: NA

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To DAVID SMITH	From MADELEINE BARRETTE
Co. HAG	Co. Wolverine
Dept.	Phone # 616-866-9521
Fax # 919-668-7331	Fax # 616-866-0992

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	NA

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? Skin? X Ingestion? eye X

Health Hazards *(Acute and Chronic)* NA

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure NA

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures wash with plenty of water; contact physician if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NA

Waste Disposal Method NA

Precautions to Be Taken in Handling and Storing do not allow sample to freeze

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* none needed

Ventilation	Local Exhaust good ventilation	Special
	Mechanical *(General)*	Other

Protective Gloves not needed Eye Protection glasses/goggles

Other Protective Clothing or Equipment none needed

Work/Hygienic/Maintenance Practices
good hygiene should be maintained; if skin irritation occurs, wear rubber gloves when handling product. Avoid contact with eyes and prolonged contact of UNDILUTED product with skin. KEEP AWAY FROM CHILDREN.

INFORMATION ON THIS MSDS IS BASED ON INFORMATION SUPPLIED BY CARBONA PRODUCTS CO.
IF MORE INFORMATION IS NEEDED, CONTACT CARBONA PRODUCTS CO.

TMC 002
11 86

ATTACHMENT B

GENERAL MOTORS CORPORATION MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME OR NUMBER (as it appears on label) CARBONA SHAMPOO FOR KROUPANA SUEDED PIGSKIN	GM COMMON CODE
MANUFACTURER'S NAME Carbona Products Company	EMERGENCY TELEPHONE NO (718) 383-5599
ADDRESS (Number, Street, City, State and Zip Code) 330 Calyer Street, Brooklyn, N.Y. 11222	MANUFACTURER'S D-U-N-S NO. 94-397
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) N/A	
ADDITIONAL HAZARD CLASSES (as applicable) N/A	
CHEMICAL FAMILY N/A	FORMULA N/A

SECTION II — INGREDIENTS (list all ingredients)

CAS REGISTRY NO.	%W	%V	CHEMICAL NAME(S)	Listed as a Carcinogen in NTP, IARC or OSHA 1910(z) (specify)
151-21-3		5.4	Sodium Lauryl Sulfate	
75-21-8		0.6	Dimethylene Oxide	
111-76-2		2.8	Ethylene Glycol Monobutyl Ether	
		91.	Aqueous Solution	
		<1.0	Preservative and Optical Brightener	

SECTION III — PHYSICAL DATA

BOILING POINT N/A °F ___ °C		SPECIFIC GRAVITY (H_2O = 1) N/A			
VAPOR PRESSURE N/A at ___ °F ___ °C ☐ mm Hg ☐ psi		PERCENT VOLATILE BY VOLUME (%) N/A		PERCENT SOLID BY WEIGHT (%) N/A	
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (= 1)	N/A		
SOLUBILITY IN WATER	N/A	pH = 8.0-8.5			
APPEARANCE AND ODOR clear solution				IS MATERIAL X LIQUID SOLID GAS PASTE POWDER	

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT ___ °F ___ °C method used	N/A	FLAMMABLE LIMITS	N/A LEL N/A UEL
EXTINGUISHING MEDIA	N/A		
SPECIAL FIRE FIGHTING PROCEDURES	N/A		
UNUSUAL FIRE AND EXPLOSION HAZARDS	N/A		

ATTACHMENT B (CONT.)

SECTION V-HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE — Conditions to Avoid N/A	THRESHOLD LIMIT VALUE ☐ PERMISSIBLE EXPOSURE LIMIT ☐ N/A OTHER LIMIT ☐ N/A

PRIMARY ROUTES OF ENTRY Inhalation ☐ Skin Contact ☐ X Other (specify) eye contact X

EMERGENCY AND FIRST AID PROCEDURES wash with plenty of water; contact physician if needed

SECTION VI-REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	N/A

INCOMPATIBILITY (materials to avoid) N/A

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	N/A

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N/A

WASTE DISPOSAL METHOD N/A

CERCLA (Superfund) REPORTABLE QUANTITY (in lbs) N/A

RCRA HAZARDOUS WASTE NO. (40 CFR 261.33) N/A

VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water) N/A

☐ Theoretical _____ lb/gal N/A ☐ Analytical _____ lb/gal N/A

SECTION VIII-SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type) N/A

VENTILATION	LOCAL EXHAUST (Specify Rate) N/A	SPECIAL	N/A
	MECHANICAL (General) (Specify Rate) N/A	OTHER	N/A

PROTECTIVE GLOVES (specify type) N/A EYE PROTECTION (specify type) goggles

OTHER PROTECTIVE EQUIPMENT N/A

SECTION IX-SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Avoid contact with eyes and prolonged contact of UNDILUTED product with skin. Keep away from children.

OTHER PRECAUTIONS

Seller agrees not to assert any claim (other than a claim for a patent infringement) against General Motors Corporation for any use or disclosure of any technical data or information disclosed in connection with this questionnaire

PLEASE COMPLETE QUESTIONNAIRE AND RETURN TO:	Name (print) Leo P. Devarenne
	Signature Leo P. Devarenne
	Title Technical Director/Wolverine Leathers
	Date 2/6/87

H_2O — 50
1248 — 2.5
DK tan — 2.5
yellow — 2.0
Black — .4

H_2O Base — spray gusts

Wash of H_2O

Gloves & goggles

W.L.

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* DARK MAPLEWOOD EXTREME SPRAY

Section I

Manufacturer's Name: WOLVERINE LEATHERS	Emergency Telephone Number: 616-866-5766
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-5766
Rockford Mi 49351	Date Prepared: 9/4/96
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
water base product not considered hazardous				

Section III — Physical/Chemical Characteristics

Boiling Point: N/A		Specific Gravity (H_2O = 1): N/A	
Vapor Pressure (mm Hg):	N/A	Melting Point	N/A
Vapor Density (AIR = 1):	N/A	Evaporation Rate (Butyl Acetate = 1):	N/A

Solubility in Water: water soluble

Appearance and Odor: brown liquid, odor barely noticeable

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	Flammable Limits: N/A	LEL	UEL

Extinguishing Media: waterspray, foam, dry chemical, CO_2

Special Fire Fighting Procedures: This product not considered a fire hazard.

Unusual Fire and Explosion Hazards:

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
N/A	Unstable		
	Stable		

Incompatibility *(Materials to Avoid)* N/A

Hazardous Decomposition or Byproducts N/A

Hazardous Polymerization			Conditions to Avoid
N/A	May Occur		
	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? Skin? Ingestion?

Health Hazards *(Acute and Chronic)* N/A

Carcinogenicity: NTP? no IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure N/A

Medical Conditions Generally Aggravated by Exposure N/A

Emergency and First Aid Procedures

eye:contact: rinse with plenty of water

skin: wash with water or soap and water. remove contaminated clothing and wash before use.

ingestion; rinse mouth with plenty of water and give water to drink. do not induce vomiting

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

If possible, absorb on sand or earth and place in containers for safe disposal. Containers should be sealed and labeled. Flush away and traces which cannot be recovered with copious amounts of water and detergent if available.

Waste Disposal Method

Dispose of in accordance with federal, state and local regulation.

Precautions to Be Taken in Handling and Storing keep from freezing

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* none under normal conditions

Ventilation		
	Local Exhaust: yes	Special:
	Mechanical *(General)*: yes	Other:

Protective Gloves: impervious gloves, Eye Protection: safety glasses or chemical goggles

Other Protective Clothing or Equipment

Work/Hygienic/Maintenance Practices maintain clean and hygienic work conditions

Customer Number : 84000 MATERIAL SAFETY DATA SHEET SHIPPER NUMBER :84078
* VERSION NO.: 02 PRODUCT CODE : 5503472 EFFECTIVE DATE: 5/24/94

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer's Name
ACHESON COLLOIDS COMPANY
Address
PO Box 611747 Port Huron, MI 48061-1747
Chemical Family
GRAPHITE IN ORDORLESS SOLVENT LR
Chemical Name and Synonyms
Mixture

Emergency Telephone No.
CHEM-TEL
DOMESTIC : 1-800-255-3924
INTERNATIONAL: 01-813-979-0626
(CALL COLLECT)
Trade Name and Synonyms
DAG 2420

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number	Ingredients	%	Carcinogenicity NTP	IARC	OSHA
ACCESS # 217	Proprietary Hydrocarbon Polymer	< 5	N	N	N
ACCESS # 45	Proprietary Ester	< 5	N	N	N
64742-96-7	Refined Mineral Spirits	> 50	N	N	N
7782-42-5	Graphite	< 20	N	N	N

-------- Occupational Exposure Limits ------

CAS Number	ACGIH TLV	OSHA PEL
ACCESS # 217	None Estab.	None Estab.
ACCESS # 45	None Estab.	None Estab.
64742-96-7	5.00 PPM	100.00 PPM
7782-42-5	2.00 mg/M3	2.50 mg/M3

3. PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE	: .50 mm Hg at 20c	VAPOR DENSITY	: >5.00
SPECIFIC GRAVITY	: .85	EVAPORATION RATE	: <0.10
SOLUBLILITY IN WATER	: MISCIBLE	FREEZING POINT	: Not available
pH	: Not available	FREEZABLE	: No
BOILING POINT	:187 C	VOC	: 720
VISCOSITY	: NA	REDUCED VOC	: N/A

APPEARANCE :
BLACK LIQUID

4. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient STORAGE PRESSURE: Atmospheric
Keep container closed. Loosen closure cautiously before opening. Store in a cool and well ventilated place away from incompatible materials. (See Stability and Reactivity Section 5).
Keep away from heat, sparks and flame. Protect material from direct sunlight.
Ground and bond containers when transferring materials.
Empty containers may retain hazardous properties.
Follow all MSDS/Label warnings even after container is emptied.

5. STABILITY AND REACTIVITY

GENERAL :
This product is stable and hazardous polymerization will not occur.

INCOMPATIBLE MATERIAL AND CONDITIONS TO AVOID :
Strong oxidizers.

6. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Repeated exposures to high vapor concentrations may cause irritation of the respiratory system and nervous system damage. Intentional misuse by deliberately

concentrating and inhaling the contents can be harmful or fatal.

POTENTIAL HEALTH EFFECTS :

INGESTION :
Harmful if swallowed.

EYE CONTACT :
Causes moderate eye irritation.

SKIN CONTACT :
May cause slight skin irritation.

OTHER SKIN CONTACT :
The components of this product are not expected to be absorbed through the skin.

INHALATION :
Vapors and mists generated from this product may be harmful if inhaled.
Vapors and mists irritate eyes, nose and throat.
Dusts generated from sanding and grinding on surfaces coated with this product may be harmful if inhaled.

CHRONIC :
This product contains graphite which can accumulate in lung tissue after long-term exposure to the dust. The potential for such exposure from the use of this product is very limited.

7. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS :
Provide sufficient mechanical ventilation to maintain exposure below TLV(s). Overexposures to vapors and mists may be prevented by ensuring ventilation controls, local exhaust and/or fresh air entry. NIOSH/MSHA Schedule TC-23C- air purifying or a Schedule TC-19C- air supplied respirator may also be used to reduce exposures. Read the manufacturer's instructions and literature carefully to determine the type(s) of airborne contaminant(s) against which the respirator is effective and how it is to be properly fitted.

EYE PROTECTION :
Wear safety glasses with side shields when handling this product.

SKIN PROTECTION :
Wear protective clothing or work uniforms and gloves constructed of material(s) which are appropriate to prevent contact with the chemicals listed in the ingredient section of the MSDS.

*8. FIRST AID MEASURES *

INGESTION :
If swallowed, do not induce vomiting.

SKIN CONTACT :
If excessive skin contact with this product occurs, flush immediately with plenty of water, followed by washing with soap and water.

EYE CONTACT :
If this product is splashed into the eyes, flush eyes immediately with plenty of water for at least 15 minutes.

INHALATION :
If excessive amounts of vapors or mists from this product are inhaled, remove to

fresh air. Apply artificial respiration and other supportive measures as required. Consult a poison center, emergency room or lung specialist for additional information and guidance.

9. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD : 146 F Tag Closed Cup
FLAMMABLE LIMITS : .6 - 7.0

GENERAL HAZARD :
Flammable/combustible material; may be ignited by heat, sparks or flames. Vapors may travel to a source of ignition and flash back. Container may explode in heat of fire. Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Material may be transported hot.

FIRE :

SMALL FIRE FIGHTING INSTRUCTIONS :
Dry chemical, CO_2, water spray or regular foam.

LARGE FIRE FIGHTING INSTRUCTIONS :
Water spray, fog or regular foam.

GENERAL FIRE FIGHTING INSTRUCTIONS :
Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

FIRE FIGHTING EQUIPMENT :
Positive pressure self-contained breathing apparatus(SCBA) and structural firefighter's protective clothing will provide limited protection.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS :
Oxides of Carbon

10. ACCIDENTAL RELEASE MEASURES

SPILLS :
Shut off ignition sources; no flares, smoking or flames in hazard area. Stop leak if you can do it without risk. Water spray may reduce vapor; but it may not prevent ignition in closed spaces. Isolate area until gas has dispersed.
SMALL SPILLS :
Take up with sand or other noncombustible absorbent material and place into containers for later disposal.
LARGE SPILLS :
Dike far ahead of liquid spill for later disposal.

11. TOXICOLOGICAL INFORMATION

CAS INGREDIENTS:
4-5 Proprietary Ester 8720.00 mg/kg
(LD50 IS FOR ORAL RAT)

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Care must be taken to prevent environmental contamination from the use of this material. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

14. TRANSPORTATION INFORMATION

DOT (Department of Transportation) :
Not Regulated**

** THE ABOVE INFORMATION APPLIES TO THIS MODE OF TRANSPORTATION ONLY. THE DESCRIPTION MAY CHANGE OR THE ITEM MAY BECOME REGULATED IN OTHER MODES.

15. REGULATORY INFORMATION

SARA TITLE 3: Section 313 Information (40 CFR 372)

This product does not contain a chemical which is listed in Section 313 above DE MINIMIS concentrations.

TSCA- All components of this product are listed or are excluded from listing on the U.S. Toxic Substances Control ACT (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

If this material is part of a multiple component system, read the MSDS(s) for the other component(s) before blending as the resulting mixture may have the hazards of all of its parts.
These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

ORIGINAL COPY

Ship Date: 8/30/96

Packing List # 31769

Please refer to this # when making inquiries

The VALKYRIE CO., Inc.
60 Fremont Street • Worcester, MA 01603
(508) 756-3633 • FAX (508) 755-0052

Customer Account #

SHIP TO: WOLVERINE LEATHER
123 N. MAIN ST
ROCKFORD MA 49341

SOLD TO:

ALTERNATE SHIP TO: ATTN: FRED FINCH

ALTERNATE SOLD TO:

Customer Purchase Order #

Our Order #

#	Pack Code	Item Number / Item Description	Quantity Back Ordered	Quantity Shipped	U/M	Balance to Follow	Complete	Ctn #
1		DK MAPLEWOOD EXTREME Spray 4/			PSL			
2		PER CONV. W/ RAY DONOVAN + GARY BENNETT						
3		CALL UPON RECEIPT						
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Cartons	Weight	BL #	Packed By	Checked By	Shipping Instructions:	Freight Charges
1	1			GS	FED X	PPD

Claims for visible/concealed damage or shortage in transit must be filed with carrier on arrival. In case of errors within our shipment, please notify us in writing with all details, within five (5) days. Failure to comply constitutes acceptance. Obtain prior authorization to return defective goods.

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* BRUSHED YELLOW GLOVE LEATHER (PIGSKIN)

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-5619
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street, Rockford, MI 49351	Telephone Number for Information: 616-866-5619
	Date Prepared: 7/21/89
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Acid dyestuffs	n/a			0-1 %
Acid pre-metalized dyestuffs	n/a			0-1 %
Basic Chromium Sulfate - Trivalent	n/a			0-2 %
Sulfonated Oils	n/a			0-30 %
Napthalene Syntans	n/a			0-1 %

Section III — Physical/Chemical Characteristics

Boiling Point	n/a	Specific Gravity (H_2O = 1)	n/a
Vapor Pressure (mm Hg.)	n/a	Melting Point	n/a
Vapor Density (AIR = 1)	n/a	Evaporation Rate (Butyl Acetate = 1)	n/a

Solubility in Water: n/a

Appearance and Odor: sueded leather - natural leather odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*: n/a	Flammable Limits	LEL: n/a	UEL: n/a

Extinguishing Media: n/a

Special Fire Fighting Procedures: n/a

Unusual Fire and Explosion Hazards: n/a

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid n/a
	Stable	X	

Incompatibility *(Materials to Avoid)* n/a

Hazardous Decomposition or Byproducts n/a

Hazardous Polymerization	May Occur		Conditions to Avoid n/a
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? n/a Skin? n/a Ingestion? n/a

Health Hazards *(Acute and Chronic)* n/a

Carcinogenicity: n/a NTP? IARC Monographs? n/a OSHA Regulated? n/a

Signs and Symptoms of Exposure n/a

Medical Conditions Generally Aggravated by Exposure n/a

Emergency and First Aid Procedures n/a

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled n/a

Waste Disposal Method n/a

Precautions to Be Taken in Handling and Storing n/a

Other Precautions n/a

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* n/a

Ventilation	Local Exhaust n/a	Special n/a
	Mechanical *(General)* n/a	Other n/a

Protective Gloves n/a Eye Protection n/a

Other Protective Clothing or Equipment n/a

Work/Hygienic/Maintenance Practices n/a

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid n/a
	Stable	X	

Incompatibility *(Materials to Avoid)* n/a

Hazardous Decomposition or Byproducts n/a

Hazardous Polymerization	May Occur		Conditions to Avoid n/a
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? n/a Skin? n/a Ingestion? n/a

Health Hazards *(Acute and Chronic)* n/a

Carcinogenicity: n/a NTP? IARC Monographs? n/a OSHA Regulated? n/a

Signs and Symptoms of Exposure n/a

Medical Conditions Generally Aggravated by Exposure n/a

Emergency and First Aid Procedures n/a

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled n/a

Waste Disposal Method n/a

Precautions to Be Taken in Handling and Storing n/a

Other Precautions n/a

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* n/a

Ventilation	Local Exhaust n/a	Special n/a
	Mechanical *(General)* n/a	Other n/a

Protective Gloves n/a Eye Protection n/a

Other Protective Clothing or Equipment n/a

Work/Hygienic/Maintenance Practices n/a

MSDS
Yellow Glove
(lite wt) 2 'kg

lite wt. Brushed Yellow Glove

John Riley
Shelby Group Mfgr.
5321 East Shelby Dr
Memphis, TN 38118

FAX 901-362-9127

To _____

Date _____ Time _____

WHILE YOU WERE OUT

M _____

of _____

Phone _____
Area Code Number Extension

TELEPHONED		PLEASE CALL	
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
	RETURNED YOUR CALL		

Message _____

_____

_____

_____

_____
Operator

10-44

TRANSMISSION REPORT

W.W.W. LEATHERS

TIME	7.21.1989 10:57
DURATION	1'58"
DESTINATION	1 901 362 9127
MODE	G3
PAGES	3
RESULT	O.K.

WOLVERINE Leathers

WOLVERINE WORLD WIDE, INC. ROCKFORD, MICHIGAN 49351 USA
TELEPHONE 616-866-9521 TELEX 4320093 WWW RKFD

TO: John Riley FROM: Madeleine Barrette DATE: 7/21/89

COMPANY: Shelby Group Mfgr.

OUR FAX #(616) 866-0992 SUBJECT: MSDS/Glove Leather # OF PAGES BEING SENT 3

Dear John,

Here is the MSDS you requested for the Brushed Yellow Pigskin Glove Leather. Should you have any questions, please do not hesitate to call us.

Sincerely,

Madeleine

08-116 REV. 7/87

TMC 082
11 84

ATTACHMENT B

GENERAL MOTORS CORPORATION
MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME OR NUMBER (as it appears on label) Kroupana Finished Pigskin Leather	GM COMMON CODE
MANUFACTURER'S NAME Wolverine Leathers	EMERGENCY TELEPHONE NO. 616-866-5619
ADDRESS (Number, Street, City, State and Zip Code) 123 N Main Street, Rockford, MI 49351	MANUFACTURER'S D-U-N-S NO. 09780 7853
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) non-hazardous material	
ADDITIONAL HAZARD CLASSES (as applicable) N/A	
CHEMICAL FAMILY N/A	FORMULA N/A

SECTION II — INGREDIENTS
(list all ingredients)

CAS REGISTRY NO.	%W	%V	CHEMICAL NAME(S)	Listed as a Carcinogen in NTP, IARC or OSHA 1910(z) (specify)
	0-10		Fiber reactive dyestuffs	no
	0-10		Soluble sulfur dyestuffs	no
	0-10		Acid dyestuffs	no
	0-10		Acid pre-metalized dyestuffs	no
	4-8		Basic Chromium Sulfate - Trivalent	no
	1-5		Phenolic syntan	no
	5-20		Sulfonated Oils	no
	1-5		Modified glutarylaldehyde	no
	1-5		Water based emulsions	no

SECTION III — PHYSICAL DATA

BOILING POINT ___ °F ___ °C	N/A	SPECIFIC GRAVITY (H_2O = 1)	N/A		
VAPOR PRESSURE (at ___ °F ___ °C ☐ mm Hg ☐ psi)	N/A	PERCENT VOLATILE BY VOLUME (%)	N/A	PERCENT SOLID BY WEIGHT (%)	N/A
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (= 1)	N/A		
SOLUBILITY IN WATER	N/A	pH =	3.5-4.0		
APPEARANCE AND ODOR	finished leather - natural leather odor			IS MATERIAL GAS PASTE LIQUID POWDER (SOLID)	

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT ___ °F ___ °C method used	N/A	FLAMMABLE LIMITS	LEL UEL self-extinguishing
EXTINGUISHING MEDIA	N/A		
SPECIAL FIRE FIGHTING PROCEDURES	N/A		
UNUSUAL FIRE AND EXPLOSION HAZARDS	N/A		

SECTION V-HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE — Conditions to Avoid N/A	THRESHOLD LIMIT VALUE ☐ N/A PERMISSIBLE EXPOSURE LIMIT ☐ N/A OTHER LIMIT ☐
PRIMARY ROUTES OF ENTRY N/A Inhalation ☐ Skin Contact ☐ Other (specify)	
EMERGENCY AND FIRST AID PROCEDURES N/A	

SECTION VI-REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID N/A
	STABLE	X	
INCOMPATIBILITY (materials to avoid) N/A			
HAZARDOUS DECOMPOSITION PRODUCTS N/A			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID N/A
	WILL NOT OCCUR	X	

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N/A	
WASTE DISPOSAL METHOD N/A	
CERCLA (Superfund) REPORTABLE QUANTITY (in lbs) N/A	
RCRA HAZARDOUS WASTE NO. (40 CFR 261.33) N/A	
VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water) N/A	
☐ Theoretical _____ lb/gal N/A	☐ Analytical _____ lb/gal N/A

SECTION VIII-SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type) N/A		
VENTILATION	LOCAL EXHAUST (Specify Rate) N/A	SPECIAL N/A
	MECHANICAL (General) (Specify Rate) N/A	OTHER N/A
PROTECTIVE GLOVES (specify type) N/A	EYE PROTECTION (specify type) N/A	
OTHER PROTECTIVE EQUIPMENT N/A		

SECTION IX-SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING N/A
OTHER PRECAUTIONS N/A

N/A - not applicable

Seller agrees not to assert any claim (other than a claim for a patent infringement) against General Motors Corporation for any use or disclosure of any technical data or information disclosed in connection with this questionnaire

PLEASE COMPLETE QUESTIONNAIRE AND RETURN TO:	Name (print) Leo P. Devarenne
	Signature
	Title Technical Director
	Date 7/6/88

TMC 002
11/88

ATTACHMENT B

GENERAL MOTORS CORPORATION
MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME OR NUMBER (as it appears on label) Kroupana Sueded Pigskin Leather	GM COMMON CODE
MANUFACTURER'S NAME Wolverine Leathers	EMERGENCY TELEPHONE NO. 616-866-9521, Ext. 69
ADDRESS (Number, Street, City, State and Zip Code) 123 N. Main St., Rockford, MI 49351	MANUFACTURER'S D-U-N-S NO. 09780 7853
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) N/A	
ADDITIONAL HAZARD CLASSES (as applicable) N/A	
CHEMICAL FAMILY N/A	FORMULA N/A

SECTION II — INGREDIENTS
(list all ingredients)

CAS REGISTRY NO.	%W	%V	CHEMICAL NAME(S)	Listed as a Carcinogen in NTP, IARC or OSHA 1910(z) (specify)
			Proprietary	
			As per attached letter from the U.S. Department	
			of Labor, this product is not hazardous and	
			does not require an M.S.D.S.	

SECTION III — PHYSICAL DATA

BOILING POINT ___ °F ___ °C N/A		SPECIFIC GRAVITY (H_2O = 1)	N/A		
VAPOR PRESSURE ___ °F ___ °C ☐ mm Hg ☐ psi N/A		PERCENT VOLATILE BY VOLUME (%)	N/A	PERCENT SOLID BY WEIGHT (%)	N/A
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (= 1)	N/A		
SOLUBILITY IN WATER	N/A	pH =	3.5-4.0		
APPEARANCE AND ODOR Suede Leather - Natural				IS MATERIAL LIQUID (SOLID) GAS PASTE POWDER	

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT ___ °F ___ °C N/A method used N/A	FLAMMABLE LIMITS	LEL SE	UEL SE
EXTINGUISHING MEDIA N/A			
SPECIAL FIRE FIGHTING PROCEDURES N/A			
UNUSUAL FIRE AND EXPLOSION HAZARDS N/A			

ATTACHMENT B (CONT.)

SECTION V-HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE — Conditions to Avoid N/A	THRESHOLD LIMIT VALUE ☐ N/A PERMISSIBLE EXPOSURE LIMIT ☐ N/A OTHER LIMIT ☐ N/A
PRIMARY ROUTES OF ENTRY Inhalation ☐ N/A Skin Contact ☐ N/A Other (specify) N/A	
EMERGENCY AND FIRST AID PROCEDURES N/A	

SECTION VI-REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID N/A
	STABLE	X	
INCOMPATIBILITY (materials to avoid) N/A			
HAZARDOUS DECOMPOSITION PRODUCTS: N/A			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID N/A
	WILL NOT OCCUR	X	

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N/A	
WASTE DISPOSAL METHOD N/A	
CERCLA (Superfund) REPORTABLE QUANTITY (in lbs) N/A	
RCRA HAZARDOUS WASTE NO. (40 CFR 261.33) N/A	
VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water) N/A	
☐ Theoretical _____ lb/gal N/A	☐ Analytical _____ lb/gal N/A

SECTION VIII-SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type) N/A		
VENTILATION	LOCAL EXHAUST (Specify Rate) N/A	SPECIAL N/A
	MECHANICAL (General) (Specify Rate) N/A	OTHER N/A
PROTECTIVE GLOVES (specify type) N/A	EYE PROTECTION (specify type) N/A	
OTHER PROTECTIVE EQUIPMENT N/A		

SECTION IX-SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING N/A
OTHER PRECAUTIONS N/A

N/A = Not Applicable

Seller agrees not to assert any claim (other than a claim for a patent infringement) against General Motors Corporation for any use or disclosure of any technical data or information disclosed in connection with this questionnaire.

PLEASE COMPLETE QUESTIONNAIRE AND RETURN TO:	Name (print) Leo P. Devarenne
	Signature
	Title Technical Director
	Date 3/9/87

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* KROUPANA FINISHED PIGSKIN LEATHER

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-5619
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-5619
Rockford, MI 49351	Date Prepared: 7/25/89
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Fiber reactive dyestuffs	NE			0-10
Soluble sulfur dyestuffs	NE			0-10
Acid dyestuffs	NE			0-10
Acid pre-metalized dyestuffs	NE			0-10
Basic Chromium Sulfate - Trivalent	NE			4-8
Phenolic syntan	NE			1-5
Sulfonated Oils	NE			5-20
Modified glutaryladehyde	NE			1-5
water based emulsions	NE			1-5

Section III — Physical/Chemical Characteristics

Boiling Point	n/a	Specific Gravity (H_2O = 1)	n/a
Vapor Pressure (mm Hg.)	n/a	Melting Point	n/a
Vapor Density (AIR = 1)	n/a	Evaporation Rate (Butyl Acetate = 1)	n/a

Solubility in Water: n/a

Appearance and Odor: finished leather - natural leather odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	n/a	Flammable Limits	LEL n/a	UEL n/a

Extinguishing Media: n/a

Special Fire Fighting Procedures: n/a

Unusual Fire and Explosion Hazards: n/a

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid n/a
	Stable	X	

Incompatibility *(Materials to Avoid)* n/a

Hazardous Decomposition or Byproducts n/a

Hazardous Polymerization	May Occur		Conditions to Avoid n/a
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? n/a Skin? n/a Ingestion? n/a

Health Hazards *(Acute and Chronic)* n/a

Carcinogenicity: NTP? no IARC Monographs? no OSHA Regulated? no

Signs and Symptoms of Exposure n/a

Medical Conditions Generally Aggravated by Exposure n/a

Emergency and First Aid Procedures n/a

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled n/a

Waste Disposal Method n/a

Precautions to Be Taken in Handling and Storing n/a

Other Precautions n/a

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* n/a

Ventilation	Local Exhaust n/a	Special n/a
	Mechanical *(General)* n/a	Other n/a

Protective Gloves n/a	Eye Protection n/a

Other Protective Clothing or Equipment n/a

Work/Hygienic/Maintenance Practices n/a

n/a = not applicable

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* LEATHER MULLING AGENT #3

Section I

Manufacturer's Name Wolverine Leathers	Emergency Telephone Number (616) 866-9521 ext 69
Address *(Number, Street, City, State, and ZIP Code)* 123 N Main Street	Telephone Number for Information (616) 866-9521 ext 69
Rockford, MI 49351	Date Prepared 2/6/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
NON HAZARDOUS PRODUCT				
Ingredients: 10% Glycerine CAS # 56-81-5				
1% Baymol AN				
89% Water				

HMIS Rating- H = 1 F = 0 R = 0 PP = B

Section III — Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H_2O = 1)	N/A
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	N/A		

Appearance and Odor clear solution, no strong odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* N/A	Flammable Limits	LEL N/A	UEL N/A

Extinguishing Media N/A

Special Fire Fighting Procedures N/A

Unusual Fire and Explosion Hazards N/A

N/A Not available

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid N/A
N/A	Stable		

Incompatibility *(Materials to Avoid)* N/A

Hazardous Decomposition or Byproducts N/A

Hazardous Polymerization	May Occur		Conditions to Avoid N/A
N/A	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? N/A Skin? N/A Ingestion? N/A

Health Hazards *(Acute and Chronic)* N/A

Carcinogenicity: N/A NTP? N/A IARC Monographs? N/A OSHA Regulated? N/A

Signs and Symptoms of Exposure N/A

Medical Conditions Generally Aggravated by Exposure N/A

Emergency and First Aid Procedures wash with plenty of water, contact physician if needed.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled N/A

Waste Disposal Method N/A

Precautions to Be Taken in Handling and Storing Store above 45°F. Avoid freezing.

Other Precautions N/A

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* N/A

Ventilation	Local Exhaust recommended	Special N/A
	Mechanical *(General)* N/A	Other N/A

Protective Gloves rubber gloves recommended | Eye Protection goggles

Other Protective Clothing or Equipment not needed

Work/Hygienic/Maintenance Practices Maintain clean work practices

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* LEATHER MULLING AGENT #3

Section I

Manufacturer's Name Wolverine Leathers	Emergency Telephone Number (616)866-5619
Address *(Number, Street, City, State, and ZIP Code)* 123 N Main Street	Telephone Number for Information (616)866-5619
Rockford MI 49351	Date Prepared revised 1/26/93
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
hazardous product				
ingredients: 89 % water				
10 % Glycerine				
0.1% Tetrapol SE-G				
trace Busan 30 WB				

Leather Mulling Agent #3 contains trace amounts of isopropyl alcohol and glycol ether (ingredients in the Tetrapol SE-G)

HMIS rating H = 1 F = 1 R = 0 PP = B

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water	NA		
Appearance and Odor	clear solution, no strong odor		

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA	Flammable Limits	NA	LEL / UEL
Extinguishing Media	NA			
Special Fire Fighting Procedures	NA			
Unusual Fire and Explosion Hazards	NA			

NA + NOT AVAILABLE

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid NA
NA	Stable		

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur		Conditions to Avoid NA
NA	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? NA Skin? NA Ingestion? NA

Health Hazards *(Acute and Chronic)* NA

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure NA

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures
wash with large amount of water, contact physician if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NA

Waste Disposal Method NA

Precautions to Be Taken in Handling and Storing store above 45°F. Avoid freezing

Other Precautions NA

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* NA

Ventilation	Local Exhaust recommended	Special NA
	Mechanical *(General)* NA	Other

Protective Gloves rubber gloves	Eye Protection goggles

Other Protective Clothing or Equipment not needed

Work/Hygienic/Maintenance Practices maintain clean work practices

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* LEATHER MULLING AGENT #3

Section I

Manufacturer's Name Wolverine Leathers	Emergency Telephone Number (616)866-5619
Address *(Number, Street, City, State, and ZIP Code)* 123 N Main Street	Telephone Number for Information (616)866-5619
Rockford MI 49351	Date Prepared revised 1/26/93
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
hazardous product				
ingredients: 89 % water				
10 % Glycerine				
0.1% Tetrapol SE-G				
trace Busan 30 WB				

Leather Mulling Agent #3 contains trace amounts of isopropyl alcohol and glycol ether (ingredients in the Tetrapol SE-G)

HMIS rating H = 1 F = 1 R = 0 PP = B

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water	NA		

Appearance and Odor clear solution, no strong odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA	Flammable Limits	NA	LEL / UEL
Extinguishing Media	NA			
Special Fire Fighting Procedures	NA			
Unusual Fire and Explosion Hazards	NA			

NA + NOT AVAILABLE

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid NA
NA	Stable		

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur		Conditions to Avoid NA
NA	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? NA Skin? NA Ingestion? NA

Health Hazards *(Acute and Chronic)* NA

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure NA

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures
wash with large amount of water, contact physician if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NA

Waste Disposal Method NA

Precautions to Be Taken in Handling and Storing store above 45°F. Avoid freezing

Other Precautions NA

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* NA

Ventilation	Local Exhaust recommended	Special NA
	Mechanical *(General)* NA	Other

Protective Gloves rubber gloves	Eye Protection goggles

Other Protective Clothing or Equipment not needed

Work/Hygienic/Maintenance Practices maintain clean work practices

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* LEATHER MULLING AGENT #3

Section I

Manufacturer's Name Wolverine Leathers	Emergency Telephone Number (616)866-5619
Address *(Number, Street, City, State, and ZIP Code)* 123 N Main Street	Telephone Number for Information (616)866-5619
Rockford MI 49351	Date Prepared revised 1/26/93
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
hazardous product				
ingredients: 89 % water				
10 % Glycerine				
0.1% Tetrapol SE-G				
trace Busan 30 WB				

Leather Mulling Agent #3 contains trace amounts of isopropyl alcohol and glycol ether (ingredients in the Tetrapol SE-G)

HMIS rating H = 1 F = 1 R = 0 PP = B

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water	NA		

Appearance and Odor clear solution, no strong odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* NA	Flammable Limits	NA	LEL	UEL

Extinguishing Media NA

Special Fire Fighting Procedures NA

Unusual Fire and Explosion Hazards NA

NA + NOT AVAILABLE

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid NA
NA	Stable		

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur		Conditions to Avoid NA
NA	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? NA Skin? NA Ingestion? NA

Health Hazards *(Acute and Chronic)* NA

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure NA

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures
wash with large amount of water, contact physician if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NA

Waste Disposal Method NA

Precautions to Be Taken in Handling and Storing store above 45°F. Avoid freezing

Other Precautions NA

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* NA

Ventilation	Local Exhaust recommended	Special NA
	Mechanical (General) NA	Other

Protective Gloves rubber gloves	Eye Protection goggles

Other Protective Clothing or Equipment not needed

Work/Hygienic/Maintenance Practices maintain clean work practices

1-26-93

Leather Milling Agent #3
revised

40#

89.0
~~87.5~~ % H2O

10 % Glycerine

0.1 % Talc

100

H 1
F 1
R 0
B

Leather Mulling Agent

	#1	#2	#3
H_2O	89.75%	89.50	89.00
Glycerine	10.00%	10.00	10.00
Baymal AN	0.25%	0.50	1.00

100% AN = 10% IPA + 90% H_2O

1% of 100% AN = 4% IPA 4.001%

1% of 100% AN =

Mull. Agent 3

100# = 1# AN + 99# H_2O

(↓ < 10% IPA)

100# Agent 3 = 8% 1% IPA in sln.

1# AN = < 10% IPA

100# #3 = 1# AN + 99# H_2O

100% AN = < 10% IPA

∴

100# #3 =

MATERIAL ORDER

.e Dept.

1986 COLOR & FATLIQUOR 1/8 Mill Baychrom Shag

s.	Ozs.	Lbs.	Ozs.	Material Used	Std. Cost	Total	Lot No.
		2.5		Baychrom 2402	0.6800	1.70	
		2.875		Relugan GTW	0.7900	2.27	
		0.03		Baymol AE	0.8000	0.02	
		0.015		Baymol AN	0.4500	0.01	
				Tamol SD	0.7700		
				Snow Flake Crystals	0.1900		
				Formic Acid	0.3300		
		12		930 oil	0.4600	5.52	
				Titanium Dioxide	0.7900		
		1.875		FC 236 B	5.9000	11.06	
		1		FC 236 A	5.9000	5.90	
				Ammonia	0.0700		
				INvaderm LU	2.2500		

-108 Foreman:

11702

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MATERIAL SAFETY DATA SHEET

Dow Chemical U.S.A. Midland, MI 48674 Emergency Phone: 517-636-4400

MSD: 000165 Page: 1

PRODUCT NAME: GLYCERINE, USP, 99.5%

Effective Date: 03/18/85 Date Printed: 10/16/85 | Product Code: 38698

1. INGREDIENTS:

Glycerine, minimum CAS# 000056-81-5 99.5%

Substances listed in the Ingredients Section are those identified as being present at a concentration of 1% or greater, or 0.1% if the substance is on the list of potential carcinogens cited in OSHA Hazard Communication Standard. Where proprietary, ingredient shows, the identity of this substance may be made available as provided in 29 CFR 1910.1200(i).

2. PHYSICAL DATA:

BOILING POINT: 554F, 290C
VAP PRESS: < 1.0 mmHg @ 20C
VAP DENSITY: 3.1
SOL. IN WATER: Miscible
SP. GRAVITY: 1.2607 @ 25/25 (min.)
APPEARANCE: Water white liquid.
ODOR: Odorless.

3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: 390F, 199C
METHOD USED: PMCC

FLAMMABLE LIMITS
LFL: Not deter.
UFL: Not deter.

EXTINGUISHING MEDIA: Water fog, alcohol foam, CO2, dry chemical.

FIRE & EXPLOSION HAZARDS: None.
Autoignition temperature 698F, 370C.

RECEIVED
DATE 11-15-85
INITIALS JS

(Continued on Page 2)
(R) Indicates a trademark of The Dow Chemical Company

3. FIRE AND EXPLOSION HAZARD DATA: (CONTINUED)

FIRE-FIGHTING EQUIPMENT: Not available.

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Avoid strong oxidizing agent (sodium hypochlorite, hypochlorous acid).

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Oxidizing material.

HAZARDOUS DECOMPOSITION PRODUCTS: Acrolein.

HAZARDOUS POLYMERIZATION: Will not occur.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: Small spills: Cover with absorbent material, soak up and sweep into a drum. Large spills: Dike around spill and pump into suitable containers.

DISPOSAL METHOD: Reprocess or incinerate in accordance with all local, state, and federal requirements.

6. HEALTH HAZARD DATA:

EYE: Slight transient irritation.

SKIN CONTACT: Essentially non-irritating.

SKIN ABSORPTION: Not likely to be absorbed through skin.

INGESTION: Low single and repeated dose toxicity.

INHALATION: ACGIH TLV is 10 mg/m3 as a nuisance mist (1979).

SYSTEMIC & OTHER EFFECTS: Irritation.

(Continued on Page 3)

(R) Indicates a trademark of The Dow Chemical Company

7. FIRST AID:

EYES: Irrigation of the eye immediately with water for five minutes is good safety practice.

SKIN: Wash off in flowing water.

INGESTION: Low in toxicity. Induce vomiting if large amounts are ingested.

INHALATION: Remove to fresh air if effects occur. Call physician and/or transport to medical facility.

NOTE TO PHYSICIAN:
Eyes: May cause mild irritation. Stain for evidence of corneal injury. Injury is unlikely.
Skin: Injury is unlikely. Not likely to be absorbed in acutely toxic amounts.
Respiratory: Should avoid heated vapors. May cause severe irritation with overexposure. Administer oxygen if available. Bronchodilators, expectorants, and antitussives may be of help.
Oral: Low in toxicity.
Systemic: Rat studies indicate that kidney is target organ with overexposure. Consult standard literature. No specific antidote. Treatment based on the sound judgment of the physician and the individual reactions of the patient.

8. HANDLING PRECAUTIONS:

VENTILATION: Recommend control of mist to suggested guide.

RESPIRATORY PROTECTION: None normally needed.

SKIN PROTECTION: None required.

EYE PROTECTION: Not normally necessary.

(Continued on Page 4)
(R) Indicates a trademark of The Dow Chemical Company

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Practice reasonable care and caution.

MSDS STATUS: Revised 1.

(R) Indicates a trademark of The Dow Chemical Company
The Information Herein Is Given In Good Faith, But No Warranty, Expressed Or Implied, Is Made. Consult The Dow Chemical Company For Further Information.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* LEATHER MULLING AGENT #4

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: (616) 866-5619
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street Rockford, MI 49351	Telephone Number for Information: (616) 866-5619
	Date Prepared: 4/21/88
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
NON-HAZARDOUS PRODUCT				
ingredients: 90% Water				
10% Furopol				
Busan 30WB				

HMIS Rating H = 1 F = 0 R = 0 PP = B

NA = not available

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water	soluble		
Appearance and Odor	clear solution		

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA	Flammable Limits	LEL NA	UEL NA
Extinguishing Media	NA			
Special Fire Fighting Procedures	NA			
Unusual Fire and Explosion Hazards	NA			

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid NA
NA	Stable		

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur		Conditions to Avoid NA
NA	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? NA Skin? NA Ingestion? NA

Health Hazards *(Acute and Chronic)* NA

Carcinogenicity: NA NTP? NA IARC Monographs? NA OSHA Regulated? NA

Signs and Symptoms of Exposure NA

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures wash with plenty of water, contact physician if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NA

Waste Disposal Method NA

Precautions to Be Taken in Handling and Storing store above 45°F. Avoid freezing

Other Precautions NA

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* NA

Ventilation	Local Exhaust recommended	Special NA
	Mechanical *(General)* NA	Other NA

Protective Gloves rubber gloves	Eye Protection goggles

Other Protective Clothing or Equipment not needed

Work/Hygienic/Maintenance Practices maintain clean work practices

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* LEATHER MULLING AGENT #4

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: (616) 866-5619
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street Rockford, MI 49351	Telephone Number for Information: (616) 866-5619
	Date Prepared: 4/21/88
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
NON-HAZARDOUS PRODUCT				
ingredients: 90% Water				
10% Furopol				
Busan 30WB				

HMIS Rating H = 1 F = 0 R = 0 PP = B

NA = not available

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water	soluble		
Appearance and Odor	clear solution		

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA	Flammable Limits	LEL NA	UEL NA
Extinguishing Media	NA			
Special Fire Fighting Procedures	NA			
Unusual Fire and Explosion Hazards	NA			

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid NA
NA	Stable		

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur		Conditions to Avoid NA
NA	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? NA Skin? NA Ingestion? NA

Health Hazards *(Acute and Chronic)* NA

Carcinogenicity: NA NTP? NA IARC Monographs? NA OSHA Regulated? NA

Signs and Symptoms of Exposure NA

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures wash with plenty of water, contact physician if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NA

Waste Disposal Method NA

Precautions to Be Taken in Handling and Storing store above 45°F. Avoid freezing

Other Precautions NA

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* NA

Ventilation	Local Exhaust recommended	Special NA
	Mechanical *(General)* NA	Other NA

Protective Gloves rubber gloves | Eye Protection goggles

Other Protective Clothing or Equipment not needed

Work/Hygienic/Maintenance Practices maintain clean work practices

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* LEATHER PROTECTOR # 1

Section I Fluorochemical Chromium Complex

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 EXT 69
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-9521 EXT 69
Rockford, MI 49351	Date Prepared: 1/30/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Isopropanol CAS # 67-63-0	400 ppm			51-60
Water CAS # 7732-18-5	NE			10-17
Hexavalent Chromium Content	0.05 mg/m^3		less than 0.001	
Trivalent Chromiun Content	0.5 mg/m^3		~ 1.5	
Fluoroalkyl Carboxylate of Trivalent Chromium Complex CAS # Mixture	NE			30-32

NE = not established

* TLV for Trivalent Chromium

NA = not applicable

ND = not determined

Section III — Physical/Chemical Characteristics

Boiling Point (initial)	~180°F	Specific Gravity (H_2O = 1)	~1.0
Vapor Pressure (mm Hg.) Calc. @ R.T.	~55 mmHg	Melting Point	NA
Vapor Density (AIR = 1) Calc. @ R.T.	~1.8	Evaporation Rate (Butyl Acetate = 1)	>1

Solubility in Water: complete

Appearance and Odor: Dark green liquid with isopropanol odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* Setaflach CC 54°F	Flammable Limits	LEL ND	UEL ND

Extinguishing Media: Foam, CO_2, Dry Chemical

Special Fire Fighting Procedures: Wear full protective gear and self-contained breathing apparatus

Unusual Fire and Explosion Hazards: Toxic by-products, including HF, may be formed

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	NA

Incompatibility *(Materials to Avoid)*
NA

Hazardous Decomposition or Byproducts
Thermal decomposition may produce toxic materials including HF

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? see below Skin? Ingestion?

Health Hazards *(Acute and Chronic)*
Eye Contact: extremely irritating to the eyes

Skin Contact: non-irratiting to the skin of albino rabbits; may cause irration of the skin of prolonged or repeated contact

(continued page 2)

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
over exposure to isopropanol: dizziness, nausea, headache, vomiting, incoordination, confusion, drowsiness and coma

Medical Conditions
Generally Aggravated by Exposure
NA

Emergency and First Aid Procedures
EYE CONTACT: immediately flush with plenty of water. Continue for 10 minutes. Call a physician.

(continued page 2)

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Extinguish all ignition sources. Observe precautions from other sections. Ventilate. Cover with absorbent material. Collect spilled material. Place in U.S. DOT container and seal.

Waste Disposal Method
Carefully, with stirring and cooling, add waste product to a solution of soda ash and slaked lime. Neutralize, confirm neutrality. Incinerate bulk product in industrial or commercial facility.

Precautions to Be Taken in Handling and Storing
Keep away from heat, sparks and open flames. Use only in well ventilated areas with sufficient air movement to maintain airborne levels at recognized health and safety levels. Avoid prolonged or repeated skin contact. Keep container closed when not in use. STORE ABOVE 50°F FOR READY USE. (cont page 2)

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
Above component exposure limits, use organic vapor cartridge respirator.

Ventilation	Local Exhaust	Special
	ventilation is recommended	
	Mechanical *(General)*	Other

Protective Gloves: rubber gloves
Eye Protection: safety goggles

Other Protective Clothing or Equipment
none

Work/Hygienic/Maintenance Practices
good hygiene recommended

LEATHER PROTECTOR #1

Section VI Health Hazard Data

Inhalation: Isopropanol may cause respiratory system irritation and nervous system impairment. Isopropanol potentiates the toxicity of chlorinated hydrocarbons, n-nitroso-dimethylamine and n-hexane. Symptoms of acute over-exposure to isopropanol may include dizziness, nausea, headache, vomiting, incoordination, confusion, drowsiness and coma. In extreme overexposure to isopropanol death can occur. OSHA permissible exposure limits: Isopropanol 400 ppm TWA; Chromium salts as Cr 0.5 milligrams/ cubic meter TWA; chromium salts insoluble 1 milligram/ cubic meter TWA. Additional ACGIH limit: isopropanol 500 ppm STEL.

Ingestion: The oral LD50 (rat) for LEATHER PROTECTOR #1 is 2.5 to 5.0 grams per kilogram of body weight. It can be considered slightly toxic orally. Aspiration of isopropanol into the lungs can cause chemical pneumonia which can be fatal.

SUGGESTED FIRST AID

SKIN CONTACT: Wash affected area with soap and water.

INHALATION: Remove to fresh air. If breathing is difficult, contact a physician.

INGESTION: Give two glasses of water. Immediately call a physician or Poison Control Center.

Section VII Precautions for Safe Handling and Use

Waste Disposal Method: Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste No.: D001 (Ignitable) & D002(Corrosive)

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* LEATHER PROTECTOR # 1

Section I Fluorochemical Chromium Complex

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 EXT 69
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-9521 EXT 69
Rockford, MI 49351	Date Prepared: 1/30/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Isopropanol CAS # 67-63-0	400 ppm			51-60
Water CAS # 7732-18-5	NE			10-17
Hexavalent Chromium Content	0.05 mg/m^3			less than 0.001
Trivalent Chromiun Content	0.5 mg/m^3			~ 1.5
Fluoroalkyl Carboxylate of Trivalent Chromium Complex CAS # Mixture	NE			30-32

NE = not established

* TLV for Trivalent Chromium

NA = not applicable

ND = not determined

Section III — Physical/Chemical Characteristics

Boiling Point (initial)	~180°F	Specific Gravity (H_2O = 1)	~1.0
Vapor Pressure (mm Hg.) Calc. @ R.T.	~55 mmHg	Melting Point	NA
Vapor Density (AIR = 1) Calc. @ R.T.	~1.8	Evaporation Rate (Butyl Acetate = 1)	>1

Solubility in Water: complete

Appearance and Odor: Dark green liquid with isopropanol odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* Setaflach CC 54°F	Flammable Limits	LEL ND	UEL ND

Extinguishing Media: Foam, CO2, Dry Chemical

Special Fire Fighting Procedures: Wear full protective gear and self-contained breathing apparatus

Unusual Fire and Explosion Hazards: Toxic by-products, including HF, may be formed

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	NA

Incompatibility *(Materials to Avoid)*
NA

Hazardous Decomposition or Byproducts
Thermal decomposition may produce toxic materials including HF

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? see below Skin? Ingestion?

Health Hazards *(Acute and Chronic)*
Eye Contact: extremely irritating to the eyes

Skin Contact: non-irratiting to the skin of albino rabbits; may cause irration of the skin of prolonged or repeated contact

(continued page 2)

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
over exposure to isopropanol: dizziness, nausea, headache, vomiting, incoordination, confusion, drowsiness and coma

Medical Conditions Generally Aggravated by Exposure
NA

Emergency and First Aid Procedures
EYE CONTACT: immediately flush with plenty of water. Continue for 10 minutes. Call a physician.

(continued page 2)

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Extinguish all ignition sources. Observe precautions from other sections. Ventilate. Cover with absorbent material. Collect spilled material. Place in U.S. DOT container and seal.

Waste Disposal Method
Carefully, with stirring and cooling, add waste product to a solution of soda ash and slaked lime. Neutralize, confirm neutrality. Incinerate bulk product in industrial or commercial facility.

Precautions to Be Taken in Handling and Storing
Keep away from heat, sparks and open flames. Use only in well ventilated areas with (cont page 2) sufficient air movement to maintain airborne levels at recognized health and safety levels. Avoid prolonged or repeated skin contact. Keep container closed when not in use. STORE ABOVE 50°F FOR READY USE.

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
Above component exposure limits, use organic vapor cartridge respirator.

Ventilation	Local Exhaust	Special
	ventilation is recommended	
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
rubber gloves	safety goggles

Other Protective Clothing or Equipment
none

Work/Hygienic/Maintenance Practices
good hygiene recommended

LEATHER PROTECTOR #1

Section VI Health Hazard Data

Inhalation: Isopropanol may cause respiratory system irritation and nervous system impairment. Isopropanol potentiates the toxicity of chlorinated hydrocarbons, n-nitroso-dimethylamine and n-hexane. Symptoms of acute over-exposure to isopropanol may include dizziness, nausea, headache, vomiting, incoordination, confusion, drowsiness and coma. In extreme overexposure to isopropanol death can occur. OSHA permissible exposure limits: Isopropanol 400 ppm TWA; Chromium salts as Cr 0.5 milligrams/ cubic meter TWA; chromium salts insoluble 1 milligram/ cubic meter TWA. Additional ACGIH limit: isopropanol 500 ppm STEL.

Ingestion: The oral LD50 (rat) for LEATHER PROTECTOR #1 is 2.5 to 5.0 grams per kilogram of body weight. It can be considered slightly toxic orally. Aspiration of isopropanol into the lungs can cause chemical pneumonia which can be fatal.

SUGGESTED FIRST AID

SKIN CONTACT: Wash affected area with soap and water.

INHALATION: Remove to fresh air. If breathing is difficult, contact a physician.

INGESTION: Give two glasses of water. Immediately call a physician or Poison Control Center.

Section VII Precautions for Safe Handling and Use

Waste Disposal Method: Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste No.: D001 (Ignitable) & D002(Corrosive)

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* LEATHER PROTECTOR # 1

Section I Fluorochemical Chromium Complex

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 EXT 69
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-9521 EXT 69
Rockford, MI 49351	Date Prepared: 1/30/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Isopropanol CAS # 67-63-0	400 ppm			51-60
Water CAS # 7732-18-5	NE			10-17
Hexavalent Chromium Content	0.05 mg/m^3		less than 0.001	
Trivalent Chromiun Content	0.5 mg/m^3		~ 1.5	
Fluoroalkyl Carboxylate of Trivalent Chromium Complex CAS # Mixture	NE			30-32

NE = not established

* TLV for Trivalent Chromium

NA = not applicable

ND = not determined

Section III — Physical/Chemical Characteristics

Boiling Point	(initial)	~180°F	Specific Gravity (H_2O = 1)	~1.0
Vapor Pressure (mm Hg.)	Calc. @ R.T.	~55 mmHg	Melting Point	NA
Vapor Density (AIR = 1)	Calc. @ R.T.	~1.8	Evaporation Rate (Butyl Acetate = 1)	>1
Solubility in Water	complete			
Appearance and Odor	Dark green liquid with isopropanol odor			

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* Setaflach CC 54°F	Flammable Limits	LEL ND	UEL ND

Extinguishing Media: Foam, CO2, Dry Chemical

Special Fire Fighting Procedures: Wear full protective gear and self-contained breathing apparatus

Unusual Fire and Explosion Hazards: Toxic by-products, including HF, may be formed

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	NA

Incompatibility *(Materials to Avoid)*
NA

Hazardous Decomposition or Byproducts
Thermal decomposition may produce toxic materials including HF

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? see below Skin? Ingestion?

Health Hazards *(Acute and Chronic)*
Eye Contact: extremely irritating to the eyes

Skin Contact: non-irratiting to the skin of albino rabbits; may cause irration of the skin of prolonged or repeated contact

(continued page 3)

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
over exposure to isopropanol: dizziness, nausea, headache, vomiting, incoordination, confusion, drowsiness and coma

Medical Conditions
Generally Aggravated by Exposure
NA

Emergency and First Aid Procedures
EYE CONTACT: immediately flush with plenty of water. Continue for 10 minutes. Call a physician.

(continued page 3)

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Extinguish all ignition sources. Observe precautions from other sections. Ventilate. Cover with absorbent material. Collect spilled material. Place in U.S. DOT container and seal.

Waste Disposal Method
Carefully, with stirring and cooling, add waste product to a solution of soda ash and slaked lime. Neutralize, confirm neutrality. Incinerate bulk product in industrial or commercial facility.

Precautions to Be Taken in Handling and Storing
Keep away from heat, sparks and open flames. Use only in well ventilated areas with sufficient air movement to maintain airborne levels at recognized health and safety levels. Avoid prolonged or repeated skin contact. Keep container closed when not in use. STORE ABOVE 50°F FOR READY USE.

(cont page 3)

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
Above component exposure limits, use organic vapor cartridge respirator.

Ventilation	Local Exhaust	Special
	ventilation is recommended	
	Mechanical *(General)*	Other

Protective Gloves: rubber gloves
Eye Protection: safety goggles

Other Protective Clothing or Equipment
none

Work/Hygienic/Maintenance Practices
good hygiene recommended

LEATHER PROTECTOR #1

Section VI Health Hazard Data

Inhalation: Isopropanol may cause respiratory system irritation and nervous system impairment. Isopropanol potentiates the toxicity of chlorinated hydrocarbons, n-nitrosodimethylamine and n-hexane. Symptoms of acute overexposure to isopropanol may include dizziness, nausea, headache, vomiting, incoordination, confusion, drowsiness and coma. In extreme overexposure to isopropanol death can occur. OSHA permissible exposure limits: Isopropanol 400 ppm TWA; Chromium salts as Cr 0.5 milligrams/cubic meter TWA; chromium salts insoluble 1 milligram/cubic meter TWA. Additional ACGIH limit: isopropanol 500 ppm STEL.

Ingestion: The oral LD50 (rat) for LEATHER PROTECTOR #1 is 2.5 to 5.0 grams per kilogram of body weight. It can be considered slightly toxic orally. Aspiration of isopropanol into the lungs can cause chemical pneumonia which can be fatal.

SUGGESTED FIRST AID

SKIN CONTACT: Wash affected area with soap and water.

INHALATION: Remove to fresh air. If breathing is difficult, contact a physician.

INGESTION: Give two glasses of water. Immediately call a physician or Poison Control Center.

Section VII Precautions for Safe Handling and Use

Waste Disposal Method: Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste No.: D001 (Ignitable) & D002(Corrosive)

WOLVERINE
Leathers
PIGSKIN
ROCKFORD, MI 49351

[redacted]

LEATHER PROTECTOR #1
contains Isopropyl alcohol

(616) 866-9521 extension 69

[redacted]

10 573 32-810376 4/84

WOLVERINE
Leathers
PIGSKIN
ROCKFORD, MI 49351

[redacted]

LEATHER PROTECTOR #2
contains MIBK and ethylene glycol

(616) 866-9521 extension 69

[redacted]

10 573 32-810376 4/84

WWW_104(e)_016290

CHEMICAL NAME LEATHER PROTECTOR #1

	2	REACTIVITY	1
FLAMMABILITY	3	PERSONAL PROTECTION	B

0 MINIMAL 1 SLIGHT 2 MODERATE 3 SERIOUS 4 SEVERE

CHEMICAL NAME LEATHER PROTECTOR #2

	2	REACTIVITY	1
FLAMMABILITY	3	PERSONAL PROTECTION	B

0 MINIMAL 1 SLIGHT 2 MODERATE 3 SERIOUS 4 SEVERE

CHEMICAL NAME

		REACTIVITY	
FLAMMABILITY		PERSONAL PROTECTION	

0 MINIMAL 1 SLIGHT 2 MODERATE 3 SERIOUS 4 SEVERE

CHEMICAL NAME

		REACTIVITY	
FLAMMABILITY		PERSONAL PROTECTION	

0 MINIMAL 1 SLIGHT 2 MODERATE 3 SERIOUS 4 SEVERE

WWW_104(e)_016291

FEDERAL EXPRESS
SHIPPER'S CERTIFICATION FOR HAZARDOUS MATERIALS
(excluding radioactive materials)

Two completed and signed copies of this certification shall be handed to carrier. (Use block letters.)

WARNING: Failure to comply in all respects with the applicable regulations of the Department of Transportation, 49 CFR, Parts 100-199 and, for international shipments, the IATA Restricted Articles Regulations may be a breach of the applicable law, subject to legal penalties. This certification shall in no circumstance be signed by an IATA Cargo Agent or a consolidator for international shipments.

This shipment is within the limitations prescribed for: **(mark one)** ☐ passenger & cargo aircraft ☐ cargo-only aircraft

No. of Pkgs.	Article No. (Int'l only)	Proper Shipping Name of Materials as shown in 49 CFR, part 172.101 and additional description requirements specified in 49 CFR 172.203, and (for int'l shipments) the IATA Restricted Articles Regulations	Class Specified in 49 CFR 172.101	Identification Number UN or NA 172.101	IATA Packing Note No. Applied (Int'l only)	Net Quantity Per Package	Flash Point (closed cup) For Flammable Liquids (Int'l Only)	
							°C.	°F.

Special Handling Information:

I hereby certify that the contents of this consignment are fully and accurately described above by Proper Shipping Name and are classified, packed, marked, and labelled, and in proper condition for carriage by air according to applicable national governmental regulations.

Name and full address of Shipper	Name and title of person signing Certification
	Emergency telephone no.
Date	Signature of the Shipper (see WARNING above)

Federal Express Airbill No.	Origin Station	Destination Station

FEC-S-0147 REV 8/11/81
FEC Reprographics Services
2041730147

DISTRIBUTION: White Copy – Attached to Airbill
Canary Copy – Attached to Airbill
Pink Copy – Attached to Package
Goldenrod Copy – Shipper

FEDERAL EXPRESS
SHIPPER'S CERTIFICATION FOR HAZARDOUS MATERIALS
(excluding radioactive materials)

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WARNING: Failure to comply in all respects with the applicable regulations of the Department of Transportation, 49 CFR, Parts 100-199 and, for international shipments, the IATA Restricted Articles Regulations may be a breach of the applicable law, subject to legal penalties. This certification shall in no circumstance be signed by an IATA Cargo Agent or a consolidator for international shipments.

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Date	Signature of the Shipper (see WARNING above)

Federal Express Airbill No.	Origin Station	Destination Station

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FEDERAL EXPRESS
SHIPPER'S CERTIFICATION FOR HAZARDOUS MATERIALS
(excluding radioactive materials)

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WARNING: Failure to comply in all respects with the applicable regulations of the Department of Transportation, 49 CFR, Parts 100-199 and, for international shipments, the IATA Restricted Articles Regulations may be a breach of the applicable law, subject to legal penalties. This certification shall in no circumstance be signed by an IATA Cargo Agent or a consolidator for international shipments.

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No. of Pkgs.	Article No. (Int'l only)	Proper Shipping Name of Materials as shown in 49 CFR, part 172.101 and additional description requirements specified in 49 CFR 172.203, and (for int'l shipments) the IATA Restricted Articles Regulations	Class Specified in 49 CFR 172.101	Identification Number UN or NA 172.101	IATA Packing Note No. Applied (Int'l only)	Net Quantity Per Package	Flash Point (closed cup) For Flammable Liquids (Int'l Only)	
							°C.	°F.

Special Handling Information:

I hereby certify that the contents of this consignment are fully and accurately described above by Proper Shipping Name and are classified, packed, marked, and labelled, and in proper condition for carriage by air according to applicable national governmental regulations.

Name and full address of Shipper	Name and title of person signing Certification
	Emergency telephone no.
Date	Signature of the Shipper (see WARNING above)

Federal Express Airbill No.	Origin Station	Destination Station

FEC-S-0147 REV 8/11/81
FEC Reprographics Services
2041730147

DISTRIBUTION: White Copy – Attached to Airbill
Canary Copy – Attached to Airbill
Pink Copy – Attached to Package
Goldenrod Copy – Shipper

FEDERAL EXPRESS
SHIPPER'S CERTIFICATION FOR HAZARDOUS MATERIALS
(excluding radioactive materials)

Two completed and signed copies of this certification shall be handed to carrier. (Use block letters.)

WARNING: Failure to comply in all respects with the applicable regulations of the Department of Transportation, 49 CFR, Parts 100-199 and, for international shipments, the IATA Restricted Articles Regulations may be a breach of the applicable law, subject to legal penalties. This certification shall in no circumstance be signed by an IATA Cargo Agent or a consolidator for international shipments.

This shipment is within the limitations prescribed for: **(mark one)** ☐ passenger & cargo aircraft ☐ cargo-only aircraft

No. of Pkgs.	Article No. (Int'l only)	Proper Shipping Name of Materials as shown in 49 CFR, part 172.101 and additional description requirements specified in 49 CFR 172.203, and (for int'l shipments) the IATA Restricted Articles Regulations	Class Specified in 49 CFR 172.101	Identification Number UN or NA 172.101	IATA Packing Note No. Applied (Int'l only)	Net Quantity Per Package	Flash Point (closed cup) For Flammable Liquids (Int'l Only)	
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Name and full address of Shipper	Name and title of person signing Certification
	Emergency telephone no.
Date	Signature of the Shipper (see WARNING above)

Federal Express Airbill No.	Origin Station	Destination Station

FEC-S-0147 REV 8/11/81
FEC Reprographics Services
2041730147

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MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* LEATHER PROTECTOR # 2

Section I Aqueous Fluorochemical Emulsion

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 EXT 69
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-9521 EXT 69
Rockford, MI 49351	Date Prepared: 1/30/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Methyl Isobutyl Ketone (MIBK)	50 ppm	CAS # 108-10-1		5
Ethylene Glycol	50ppm*	CAS # 107-21-1		8
Fluoroalkyl Urethane	NE	Mixture**		30
Water	NE	CAS # 7732-18-5		57

* as vapor-ceiling limit

NE = Not established

**= not Hazardous per 29 CFR 1910.1200

NA = Not applicable

ND = Not determined

Section III — Physical/Chemical Characteristics

Boiling Point (initial)	~220°F	Specific Gravity (H_2O = 1)	~1.1
Vapor Pressure (mm Hg.) Calc.@ R.T.	~ 30mmHg	Melting Point	NA
Vapor Density (AIR = 1) Calc.@ R.T.	~0.64	Evaporation Rate (Butyl Acetate = 1)	< 1

Solubility in Water: dispersible

Appearance and Odor: Tan emulsion, odor of MIBK

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* setaflash CC 77°F	Flammable Limits	LEL ND	UEL ND

Extinguishing Media: water, foam, CO2, dry chemical

Special Fire Fighting Procedures: wear full protective gear and self-contained breathing apparatus

Unusual Fire and Explosion Hazards: toxic by-products, including HF, may be formed.

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable X		NA

Incompatibility (Materials to Avoid)
NA

Hazardous Decomposition or Byproducts
thermal decomposition may produce toxic materials including HF

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? see below Skin? Ingestion?

Health Hazards (Acute and Chronic)
EYE CONTACT: animal studies indicate product is mildly irritation to the eyes upon direct contact.
contact may cause mild, but reversible irritation.
SKIN CONTACT: product is mildly irritation to the skin
(continued page 2)

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
dizziness, weakness, fatigue, nausea, loss of appetite, abdominal pain and unconsciousness.

Medical Conditions Generally Aggravated by Exposure
NA

Emergency and First Aid Procedures
EYE CONTACT: immediately fludh with plenty of water. Call a physician.
SKIN CONTACT: wash affected area with soap and water.
(continued page 2)

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Observe precautions from other sections. Extinguish all ignition sources. Ventilate. Cover with absorbent material. Collect spilled material. Place in U.S. DOT approved container and seal.

Waste Disposal Method
Flush spent solutions & small product quantities < 5 gal to a wastewater treatment system. Incinerate bulk product in a permitted hazardous waste facility. (continued page 2)

Precautions to Be Taken in Handling and Storing
Keep away from heat, sparks and open flames. Use only is well ventilated areas with sufficient air movement to maintain airborne levels at recognized health and safety levels. Avoid prolonged or

Other Precautions
repeated breathing of vapors or mists. Avoid eye contact. Avoid prolonged or repeated skin contact. Keep container closed when not in use. IF FROZEN WARM TO ROOM TEMPERATURE BEFORE USING.

Section VIII — Control Measures

Respiratory Protection (Specify Type)
above component exposure limits, use organic vapor cartridge respirator

Ventilation	Local Exhaust	Special
	ventilation is recommended	
	Mechanical (General)	Other

Protective Gloves: rubber gloves
Eye Protection: safety glasses or goggles

Other Protective Clothing or Equipment
none

Work/Hygienic/Maintenance Practices
good hygiene recommended

LEATHER PROTECTOR # 2

Section VI Health Hazard Data

Inhilation: Methyl isobutyl ketone and/or ethylene glycol may cause respiration system irritation and temporary nervous system impairment. Repeated overexposure may cause liver and kidney damage and blood changes. Symptoms of overexposure to methyl isobutyl ketone and/or ethylene glycol may include dizziness, weakness, fatigue, nausea, loss of appetite, abdominal pain and unconsciousness. In extreme overexpousre methyl isobutyl ketone can cause death. OSHA permissible exposure limits: MIBK 100 ppm TWA. Additional ACGIH limits: MIBK 75 ppm STEL/

Ingestion: The acute oral toxicity of the product (rat) is greater than 5 g/kg. The product is considered practically non-toxic orally.

SUGGESTED FIRST AID

INHALATION: remove to fresh air. If breathing is difficult, contact a physician.

INGESTION: give two glassed of water. IMMEDIATELY call a physician or Poison Control Center.

Section VII Precautions for Safe Handling and Use

Waste Disposal Method: Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste NO: D001 (ignitable)

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* LEATHER PROTECTOR # 2

Section I Aqueous Fluorochemical Emulsion

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 EXT 69
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-9521 EXT 69
Rockford, MI 49351	Date Prepared: 1/30/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Methyl Isobutyl Ketone (MIBK)	50 ppm	CAS # 108-10-1		5
Ethylene Glycol	50ppm*	CAS # 107-21-1		8
Fluoroalkyl Urethane	NE	Mixture**		30
Water	NE	CAS # 7732-18-5		57

* as vapor-ceiling limit

NE = Not established

**= not Hazardous per 29 CFR 1910.1200

NA = Not applicable

ND = Not determined

Section III — Physical/Chemical Characteristics

Boiling Point (initial)	~220°F	Specific Gravity (H_2O = 1)	~1.1
Vapor Pressure (mm Hg.) Calc.@ R.T.	~30mmHg	Melting Point	NA
Vapor Density (AIR = 1) Calc.@ R.T.	~0.64	Evaporation Rate (Butyl Acetate = 1)	< 1

Solubility in Water: dispersible

Appearance and Odor: Tan emulsion, odor of MIBK

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* setaflash CC 77°F	Flammable Limits	LEL ND	UEL ND

Extinguishing Media: water, foam, CO2, dry chemical

Special Fire Fighting Procedures: wear full protective gear and self-contained breathing apparatus

Unusual Fire and Explosion Hazards: toxic by-products, including HF, may be formed.

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable X		NA

Incompatibility (Materials to Avoid)
NA

Hazardous Decomposition or Byproducts
thermal decomposition may produce toxic materials including HF

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? see below Skin? Ingestion?

Health Hazards (Acute and Chronic)
EYE CONTACT: animal studies indicate product is mildly irritation to the eyes upon direct contact. contact may cause mild, but reversible irritation.
SKIN CONTACT: product is mildly irritation to the skin
(continued page 2)

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
dizziness, weakness, fatigue, nausea, loss of appetite, abdominal pain and unconsciousness.

Medical Conditions Generally Aggravated by Exposure
NA

Emergency and First Aid Procedures
EYE CONTACT: immediately fludh with plenty of water. Call a physician.
SKIN CONTACT: wash affected area with soap and water.
(continued page 2)

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Observe precautions from other sections. Extinguish all ignition sources. Ventilate. Cover with absorbent material. Collect spilled material. Place in U.S. DOT approved container and seal.

Waste Disposal Method
Flush spent solutions & small product quantities< 5 gal to a wastewater treatment system. Incinerate bulk product in a permitted hazardous waste facility. (continued page 2)

Precautions to Be Taken in Handling and Storing
Keep away from heat, sparks and open flames. Use only is well ventilated areas with sufficient air movement to maintain airborne levels at recognized health and safety levels. Avoid prolonged or

Other Precautions
repeated breathing of vapors or mists. Avoid eye contact. Avoid prolonged or repeated skin contact. Keep container closed when not in use. IF FROZEN WARM TO ROOM TEMPERATURE BEFORE USING.

Section VIII — Control Measures

Respiratory Protection (Specify Type)
above component exposure limits, use organic vapor cartridge respirator

Ventilation	Local Exhaust	Special
	ventilation is recommended	
	Mechanical (General)	Other

Protective Gloves: rubber gloves
Eye Protection: safety glasses or goggles

Other Protective Clothing or Equipment
none

Work/Hygienic/Maintenance Practices
good hygiene recommended

LEATHER PROTECTOR # 2

Section VI Health Hazard Data

Inhilation: Methyl isobutyl ketone and/or ethylene glycol may cause respiration system irritation and temporary nervous system impairment. Repeated overexposure may cause liver and kidney damage and blood changes. Symptoms of overexposure to methyl isobutyl ketone and/or ethylene glycol may include dizziness, weakness, fatigue, nausea, loss of appetite, abdominal pain and unconsciousness. In extreme overexpousre methyl isobutyl ketone can cause death. OSHA permissible exposure limits: MIBK 100 ppm TWA. Additional ACGIH limits: MIBK 75 ppm STEL/

Ingestion: The acute oral toxicity of the product (rat) is greater than 5 g/kg. The product is considered practically non-toxic orally.

SUGGESTED FIRST AID

INHALATION: remove to fresh air. If breathing is difficult, contact a physician.

INGESTION: give two glassed of water. IMMEDIATELY call a physician or Poison Control Center.

Section VII Precautions for Safe Handling and Use

Waste Disposal Method: Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste NO: D001 (ignitable)

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* LEATHER PROTECTOR # 2

Section I Aqueous Fluorochemical Emulsion

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 EXT 69
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-9521 EXT 69
Rockford, MI 49351	Date Prepared: 1/30/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Methyl Isobutyl Ketone (MIBK)	50 ppm	CAS # 108-10-1		5
Ethylene Glycol	50ppm*	CAS # 107-21-1		8
Fluoroalkyl Urethane	NE	Mixture**		30
Water	NE	CAS # 7732-18-5		57

* as vapor-ceiling limit

NE = Not established

**= not Hazardous per 29 CFR 1910.1200

NA = Not applicable

ND = Not determined

Section III — Physical/Chemical Characteristics

Boiling Point (initial)	~220°F	Specific Gravity (H_2O = 1)	~1.1
Vapor Pressure (mm Hg.) Calc.@ R.T.	~30mmHg	Melting Point	NA
Vapor Density (AIR = 1) Calc.@ R.T.	~0.64	Evaporation Rate (Butyl Acetate = 1)	< 1

Solubility in Water: dispersible

Appearance and Odor: Tan emulsion, odor of MIBK

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*: setaflash CC 77°F	Flammable Limits	LEL ND	UEL ND

Extinguishing Media: water, foam, CO2, dry chemical

Special Fire Fighting Procedures: wear full protective gear and self-contained breathing apparatus

Unusual Fire and Explosion Hazards: toxic by-products, including HF, may be formed.

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
	Unstable		
	Stable X		NA

Incompatibility *(Materials to Avoid)*
NA

Hazardous Decomposition or Byproducts
thermal decomposition may produce toxic materials including HF

Hazardous Polymerization			Conditions to Avoid
	May Occur		
	Will Not Occur	X	NA

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? see below Skin? Ingestion?

Health Hazards *(Acute and Chronic)*
EYE CONTACT: animal studies indicate product is mildly irritation to the eyes upon direct contact.
contact may cause mild, but reversible irritation.
SKIN CONTACT: product is mildly irritation to the skin
(continued page 2)

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
dizziness, weakness, fatigue, nausea, loss of appetite, abdominal pain and unconsciousness.

Medical Conditions
Generally Aggravated by Exposure
NA

Emergency and First Aid Procedures
EYE CONTACT: immediately fludh with plenty of water. Call a physician.
SKIN CONTACT: wash affected area with soap and water.
(continued page 2)

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Observe precautions from other sections. Extinguish all ignition sources. Ventilate. Cover with absorbent material. Collect spilled material. Place in U.S. DOT approved container and seal.

Waste Disposal Method
Flush spent solutions & small product quantities < 5 gal to a wastewater treatment system. Incinerate bulk product in a permitted hazardous waste facility. (continued page 3)

Precautions to Be Taken in Handling and Storing
Keep away from heat, sparks and open flames. Use only is well ventilated areas with sufficient air movement to maintain airborne levels at recognized health and safety levels. Avoid prolonged or

Other Precautions
repeated breathing of vapors or mists. Avoid eye contact. Avoid prolonged or repeated skin contact. Keep container closed when not in use. IF FROZEN WARM TO ROOM TEMPERATURE BEFORE USING.

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
above component exposure limits, use organic vapor cartridge respirator

Ventilation	Local Exhaust	Special
	ventilation is recommended	
	Mechanical *(General)*	Other

Protective Gloves: rubber gloves
Eye Protection: safety glasses or goggles

Other Protective Clothing or Equipment
none

Work/Hygienic/Maintenance Practices
good hygiene recommended

LEATHER PROTECTOR # 2

Section VI Health Hazard Data

Inhilation: Methyl isobutyl ketone and/or ethylene glycol may cause respiration system irritation and temporary nervous system impairment. Repeated over-exposure may cause liver and kidney damage and blood changes. Symptoms of overexposure to methyl isobutyl ketone and/or ethylene glycol may include dizziness, weakness, fatigue, nausea, loss of appetite, abdominal pain and unconsciousness. In extreme overexpousre methyl isobutyl ketone can cause death. OSHA permissible exposure limits: MIBK 100 ppm TWA. Additional ACGIH limits: MIBK 75 ppm STEL/

Ingestion: The acute oral toxicity of the product (rat) is greater than 5 g/kg. The product is considered practically non-toxic orally.

SUGGESTED FIRST AID

INHALATION: remove to fresh air. If breathing is difficult, contact a physician.

INGESTION: give two glassed of water. IMMEDIATELY call a physician or Poison Control Center.

Section VII Precautions for Safe Handling and Use

Waste Disposal Method: Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste NO: D001 (ignitable)

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* #32687 LT. GREY EDGING COLOR

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 (lab)
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: same
Rockford, MI 49351	Date Prepared: 5/15/87
	Signature of Preparer *(optional)*:

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Titanium Dioxide pigment (CAS # 147-14-8)	NE	5 mg/M3		16 %
Proprietary solvent: component A	25ppm skin			2.5 %
component B	25 ppm skin			1.0 %

remaining ingredients non-hazardous quantity: ammonia, carbon black /acid dye iron oxide pigment

NA - not available NE = not established

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: dilutable

Appearance and Odor: grey liquid with slight ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*: NA	Flammable Limits: NA	LEL: NA	UEL: NA

Extinguishing Media: use agents suitable for class B fires, inc. CO2, dry chemical and foam

Special Fire Fighting Procedures: water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
NA	Unstable	NA	NA
	Stable	NA	NA

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
NA	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? EYE X

~~Health Hazards (Acute and Chronic)~~

EFFECT OF OVEREXPOSURE

INHILATION: vapors or spray mist can cause headache, nausea and irritation of nose, throat and lungs.

SKIN CONTACT: irritation to skin upon repeated or prolonged contact.

Carcinogenicity: NTP? NA IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure

EYE CONTACT: slightly irritating to eyes.

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures

INHILATION: move subject to fresh air; see physician if needed

EYE/SKIN CONTACT: flush eyes with large amount of water for at least 20 minutes. see physician if needed. Wash affected skin areas with soap and water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

eliminate all ignition sources; small spills may be collected with absorbant materials. observe all federal, state, local laws concerning health and environment.

Waste Disposal Method incineration

Precautions to Be Taken in Handling and Storing

keep from freezing; keep from heat, sparks, and open flames

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*

NIOSH approved respirator if needed

Ventilation		
	Local Exhaust: good ventilation	Special
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
impervious	safety goggles

Other Protective Clothing or Equipment

safety shower and eye wash should be available wherever this product is used.

Work/Hygienic/Maintenance Practices

Good industrial hygiene should be exercised. Lung deposition of pigment is possible in spray finishing operations as mist or dust. Inflammatory condition in the lung may result.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* #51287 NAVY EDGING COLOR

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 (LAB)
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: same
Rockford, MI 49351	Date Prepared: 5/15/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Phthalocyanine pigment CAS # 147-14-8	NE			2.8 %
Proprietary solvent: component A	25 ppm skin			2.5 %
component B	25 ppm skin			1.0 %
remaining ingredients non-hazardous quantity: ammonia, 3,5-dimethyl-4-chlorophenol				
NA = not available NE = not established				
Carbon black/acid dye CAS # 7440-44-0	3.5 mg/M3			2.2 %

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: dilutable

Appearance and Odor: black/navy liquid with slight ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA	Flammable Limits	LEL NA	UEL NA

Extinguishing Media: use agents suitable for class B fires, ~~inc~~ CO2, dry chemical and foam

Special Fire Fighting Procedures: water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
NA	Unstable	NA	NA
	Stable	NA	

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
NA	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? EYE X

Health Hazards *(Acute and Chronic)*

EFFECT OF OVEREXPOSURE

INHILATION: vapors/mist can cause headache, nausea & irritation of nose, throat, lungs.

SKIN CONTACT: irritation to skin upon repeated or prolonged contact

EYE CONTACT: slightly irritating to eyes

Carcinogenicity: NTP? NA IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure see above

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures

INHILATION: move subject to fresh air; see physician if needed

EYE/SKIN CONTACT: flush eyes with large amount of water for at least 20 minutes.

see physician if needed. Wash affected skin areas with soap and water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Eliminate all ignition sources; small spills may be collected with absorbant materials.

Observe all federal, state, local laws concerning health and environment.

Waste Disposal Method incineration

Precautions to Be Taken in Handling and Storing

keep from freezing; keep from heat, sparks, and open flames

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)* NIOSH approved respirator if needed

Ventilation	Local Exhaust	Special
	good ventilation	
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
impervious	safety goggles

Other Protective Clothing or Equipment

safety shower and eye wash should be available wherever this product is used

Work/Hygienic/Maintenance Practices

Good industrial hygiene should be exercised. Lung deposition of pigment is possible in spray finishing operations as mist or dust. Inflammatory condition in the lung may result.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* #62686 OCEAN BLUE TOPCOAT DYESTUFF SOLUTION

Section I

Manufacturer's Name Wolverine Leathers	Emergency Telephone Number (616) 866-9521 ext. 69
Address *(Number, Street, City, State, and ZIP Code)* 123 N Main Street	Telephone Number for Information (616) 866-9521 ext. 69
Rockford, MI 49351	Date Prepared 4/15/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Cellulose Nitrate (CAS # 9004-70-0)	NE			0-5.5%
2-ethoxyethanol (CAS # 110-80-5)	200ppm(skin)			less than 36%
solvent Naphtha(Petroleum) (CAS # 64742-95-6)	NE			5.5-19%
1-Butanol (CAS # 71-36-3)	100ppm(skin)			0-5.5%
2-Methoxyethanol (CAS # 109-86-4)	25ppm(skin)			5.5-19%
2-Propoxyethanol (CAS # 2807-30-9)	NE			9.1%
MIBK (CAS # 000108101)	100ppm			9.1%
2-Ethoxyethyl acetate (CAS # 111-17-9)	100ppm(skin)			1.7-2.7%
denatured ethanol	1000ppm			5%
component B	25ppm(skin)			10%
Dimethyl Formamide (CAS # 68-12-2)	10ppm			less than 3.6%

NE = not established NA = not available

Section III — Physical/Chemical Characteristics

Boiling Point	NA	NA	Specific Gravity (H_2O = 1) NA	NA
Vapor Pressure (mm Hg.)	NA	NA	Melting Point NA	NA
Vapor Density (AIR = 1)	NA	NA	Evaporation Rate (Butyl Acetate = 1) NA	NA
Solubility in Water	NA			
Appearance and Odor	blue liquid with MIBK odor			

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* some components have FP of 52°F	Flammable Limits NA	LEL NA	UEL NA

Extinguishing Media
use agents suitable for Class B fires; inc. CO_2, dry chemical, and foam

Special Fire Fighting Procedures
water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards
NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable	NA	Conditions to Avoid NA
NA	Stable	NA	

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization	May Occur	NA	Conditions to Avoid NA
NA	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? X

Health Hazards *(Acute and Chronic)*
Avoid exposure to chemical; avoid contact with skin, eyes and clothing; If ingested, seek medical advice, DO NOT induce vomiting.

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
Breathing vapors may cause headache, nausea, dizziness, vomiting. Vapor may cause upper respiratory irritation. Liquid and vapors may cause eye and skin irritation.

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures
INHALATION: remove from exposure, treat symptomatically, get medical attention
EYES: immediately flush with plenty of water for at least 20 min, get medical attention
SKIN: immediately wash area with soap and pleanty of water, get medical attention if needed.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Eliminate all ignition sources. Small spills may be collected with absorbent materials. For large spills, use water spray to dilute spill to a noncombustible mixture.

Waste Disposal Method
Incineration. Observe all federal, state, and local laws concerning health and environment.

Precautions to Be Taken in Handling and Storing
Keep from heat, sparks, and open flames. Prohibit smoking in areas where this is handled. Avoid skin contact. Use only with adaquate ventilation.

Other Precautions
Store in dry place, away from excessive heat, in original or similar waterproof containers. Reseal containers immediately after use.

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
NIOSH approved respirator if needed

Ventilation	Local Exhaust	Special
	good ventilation needed to control vapors.	
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
solvent-resistant gloves	safety goggles

Other Protective Clothing or Equipment
impermeable apron should be worn to minimize skin contact

Work/Hygienic/Maintenance Practices
normal good housekeeping and good industrial hygiene procedures recommended. Safety shower, eye bath, and washing facilities should be available. Wash thoroughly after handling.

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* #32587 TAUPE EDGING COLOR

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 (LAB)
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: same
Rockford, MI 49351	Date Prepared: 5/15/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Ferric Silicate	NE			5.2 %
Titanium Dioxide Pigment CAS # 147-14-8	NE	5 mg/M3		6.5 %
Proprietary solvent: component A	25 ppm skin			2.5 %
component B	25 ppm skin			1.0 %

remaining ingredients nonhazardous quantity: ammonia, morpholine,styrene resin, 3,5-dimethyl-4-chlorophenol

NA = not available NE = not established

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: dilutable

Appearance and Odor: brown liquid with slight ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*: NA	Flammable Limits	LEL: NA	UEL: NA

Extinguishing Media: use agents suitable for class B fires, inc. CO2, dry chemical and foam

Special Fire Fighting Procedures: water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
NA	Unstable	NA	NA
	Stable	NA	

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
NA	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? EYE X

~~Health Hazards (Acute and Chronic)~~

EFFECT OF OVEREXPOSURE

INHILATION: vapors/mist can cause headache, nausea & irritation of nose,throat, lungs.

SKIN CONTACT: irritation to skin upon repeated or prolonged contact.

EYE CONTACT: slightly irritating to eyes.

Carcinogenicity: NTP? NA IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure
see above

Medical Conditions
Generally Aggravated by Exposure NA

Emergency and First Aid Procedures
INHILATION: move subject to fresh air; see physician if needed

EYE/SKIN CONTACT: flush eyes with large amount of water for at least 20 minutes.

see physician if needed. Wash affected areas with soap and water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Eliminate all ignition sources; small spills may be collected with absorbant materials.

Observe all federal, state, local laws concerning health and environment.

Waste Disposal Method
incineration

Precautions to Be Taken in Handling and Storing
keep from freezing; keep from heat, sparks, and open flames

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
NIOSH approved respirator if needed

Ventilation	Local Exhaust	Special
	good ventilation	
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
impervious	safety goggles

Other Protective Clothing or Equipment
safety shower and eye wash should be available wherever this product is used

Work/Hygienic/Maintenance Practices
Good industrial hygiene should be exercised. Lung deposition of pigment is possible in spray finishing operations as mist or dust. Inflammatory condition in the lung may result.

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* 1082 Top Coat

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-5619
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: same
Rockford, MI 49351	Date Prepared: 4/13/88
	Signature of Preparer *(optional)*:

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Methanol CAS # 67-56-1	200 ppm			00-05
Ethanol CAS # 64-17-5	1000 ppm			05-19
Ethylene Glycol ME CAS # 109-86-4 ?		5ppm(skin)		05-19
Toluene CAS # 108-88-3		100 ppm		05-19
Butyl Acetate CAS # 123-86-4	150 ppm			36
Stoddard Solvent CAS # 8052-41-3		500 ppm		01-03
Solvent Naptha CAS # 64742-95-6	NE			06-09
Isopropanol CAS # 67-63-0	400 ppm			05-19

NE = not established

NA = not available

HMIS RATING

Health 2

Fire 3

Reactivity 0

Pers. Prot. E

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water NO

Appearance and Odor water-white in color; sharp, fruity odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* NA	Flammable Limits	LEL NA	UEL NA

Extinguishing Media
water spray, dry chemical CO_2, or "alcohol" foam. Use water spray to cool containers.

Special Fire Fighting Procedures
Wear self-contained breating apparatus, use water with caution; [illegible]

Unusual Fire and Explosion Hazards
vapors may ignite or explode if allowed to accumulate near an ignition source. Material may float on water

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
NA	Unstable	NA	NA
	Stable	NA	

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? eye X

Health Hazards *(Acute and Chronic)*

EFFECT OF OVEREXPOSURE:

Inhalation: Vapors may cause headache,nausea,dizziness,vomiting.

Skin Contact:repeated contact may cause drying, or irritation of skin

Eye contact: liquid and vapor cause irritation

Carcinogenicity: NTP? NA IARC Monographs? NA OSHA Regulated? NA

Signs and Symptoms of Exposure see above

Medical Conditions Generally Aggravated by Exposure NA

Emergency and first aid procedures

Inhilation: remove victim to fresh air; artificial respiration if needed; get medical attention

Eye/Skin: flush with large amount of water for at least 20 min. Get medical attention.

Wash affected skin areas with soapy water. Consult physician if irritation persists.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Eliminate ignition sources. Wear respirator for large spills in confined areas. Dike and contain spill with inert material. Keep runoffs from sewers. Consult an expert on disoposal of recovered

Waste Disposal Method

material and ensure conformity to local, state, federal disposal regulations.

Precautions to Be Taken in Handling and Storing

Limit storage of flammable material to approved areas; ground all containers when transferring material; store at ambient temp.

Other Precautions

Women of childbearing potential should limit exposures to ethylene glycol ME to the lowest feasible level - from Union Carbide MSDS dated 3/1/83.

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*

if needed, use self-contained breathing apparatus

Ventilation		
	Local Exhaust: explosion-proof local exhaust ventilation at point of contaminant release	Special
	Mechanical *(General)*	Other

Protective Gloves: impervious

Eye Protection: chemical splash goggles

Other Protective Clothing or Equipment: eyewash facility, safety shower

Work/Hygienic/Maintenance Practices

good industrial hygiene should be practiced/ Keep from heat, sparks, open flames, hot metal surfaces, and other ignition sources. Prohibit smoking in areas where this product is used.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* WAX TOP COAT

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: (616) 866-9521 ext. 69
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: (616)866-9521 ext 69
Rockford, MI 49351	Date Prepared: 4/21/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
2-Butoxyethanol (CAS # 111-76-2)	25 ppm skin			5%

remaining ingredients are non-hazardous

NA = not available

Section III — Physical/Chemical Characteristics

Boiling Point	NA	NA	Specific Gravity (H_2O = 1)	NA	NA
Vapor Pressure (mm Hg.)	NA	NA	Melting Point	NA	NA
Vapor Density (AIR = 1)	NA	NA	Evaporation Rate (Butyl Acetate = 1)	NA	NA

Solubility in Water: yes

Appearance and Odor: colorless liquid with ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA	Flammable Limits	NA	LEL NA	UEL NA

Extinguishing Media: use agents suitable for class B fires, inc. CO_2, dry chemical and foam

Special Fire Fighting Procedures: water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
NA	Unstable	NA	NA
	Stable	NA	NA

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
NA	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? X

Health Hazards *(Acute and Chronic)*
Avoid exposure to chemical; avoid contact with skin, eyes, and clothing; If ingested, seek medical advice. DO NOT INDUCE vomiting.

Carcinogenicity: NTP? NA IARC Monographs? NA OSHA Regulated? NA

Signs and Symptoms of Exposure
breathing vapors may cause headache, nausea, dizziness, vomiting; vapor may cause respiratory irritation; liquid and vapors may cause eye and skin irritation.

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures
INHALATION: remove from exposure, treat symptomatically, get medical attention
EYES: immediately flush with plenty of water for at least 20 min, get medical attention
SKIN: immediately wash area with soapy water, rinse well, get medical attention if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Eliminate all ignition sources; small spills may be collected with absorbent materials. Observe all federal,state and local laws concerning health and environment.

Waste Disposal Method incneration

Precautions to Be Taken in Handling and Storing
Keep from heat,sparks, and open flames. Prohibit smoking in areas where this is handled. Avoid skin contact. Use only with adaquate ventilation.

Other Precautions
Store in dry place, away from excessive heat, in original or similar containers. Reseal containers immediately after use.

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
NIOSH approved respirator if needed

Ventilation	Local Exhaust	[redacted]
	good ventilation needed to control	vapors
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
solvent-resistant gloves	safety goggles

Other Protective Clothing or Equipment

Work/Hygienic/Maintenance Practices
normal good housekeeping and good industrial hygiene procedures recommended. Safety shower, eye bath, and washing facilities should be available. Wash thoroughly after handling.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* #40286 WHITE EDGING COLOR

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-9521 (LAB)
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: same
Rockford, MI 49351	Date Prepared: 5/15/87
	Signature of Preparer *(optional)*:

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Titanium Dioxide pigment CAS # 147-14-8		5 mg/M3		17 %
Proprietary solvent: component A	25 ppm skin			2.5 %
component B	25 ppm skin			1.0 %

NA = not available NE = not established

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: dilutable

Appearance and Odor: white liquid with slight ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*: NA	Flammable Limits	LEL NA	UEL NA

Extinguishing Media: use agents suitable for class B fires, inc. CO2, dry chemical and foam

Special Fire Fighting Procedures: Water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
	Unstable	NA	NA
	Stable	NA	

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? EYE X

Health Hazards *(Acute and Chronic)*

EFFECT OF OVEREXPOSURE:

INHILATION: vapors/mist can cause headache, nausea & irritation of nose, throat, lungs.

SKIN CONTACT: irritation to skin upon repeated or prolonged contact.

EYE CONTACT: slightly irritating to eyes.

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure see above

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures

INHILATION: move subject to fresh air; see physician if needed

EYE/SKIN CONTACT: Flush eyes with large amount of water for at least 20 minutes.

See physician if needed. Wash affected skin areas with soap and water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Eliminate all ingnition sources; small spills may be collected with absorbant materials.

Observe all federal, state, local laws concerning health and environment.

Waste Disposal Method incineration

Precautions to Be Taken in Handling and Storing

keep from freezing; keep from heat, sparks,a nd open flames

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*

NIOSH approved respirator if needed

Ventilation		
	Local Exhaust: good ventilation	Special
	Mechanical *(General)*	Other

Protective Gloves: impervious | Eye Protection: safety goggles

Other Protective Clothing or Equipment

safety shower and eye wash should be available wherever this product is used.

Work/Hygienic/Maintenance Practices

Good industrial hygiene should be exercised. Lung deposition of pigment is possible in spray finishing operations as mist or dust. Inflammatory condition in the lung may result.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* WHITE OSTRICH TOUCH-UP

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: (616) 866-9521 ext 69
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: (616) 866-9521 ext 69
Rockford, MI 49351	Date Prepared: 4/28/87
	Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
component A	25 ppm skin			3.1%
component B	25 ppm skin			1.3%
titanium dioxide (CAS # 147-14-8)	2 mg/M3			11.0%

remaining ingredients non-hazardous quantity: ammonia

NA = not available

Section III — Physical/Chemical Characteristics

Boiling Point	NA	NA	Specific Gravity (H_2O = 1) NA	NA
Vapor Pressure (mm Hg.)	NA	NA	Melting Point NA	NA
Vapor Density (AIR = 1)	NA	NA	Evaporation Rate (Butyl Acetate = 1) NA	NA

Solubility in Water: dilutable

Appearance and Odor: white liquid with slight ammonia odor

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)* NA	Flammable Limits NA	LEL NA	UEL NA	

Extinguishing Media: use agents suitable for class B fires, inc. CO_2, dry chemical and foam

Special Fire Fighting Procedures: water may be ineffective; if water is used, fog nozzles are preferable. Water may be used to cool exposed containers. Wear MESA/NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: NA

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability			Conditions to Avoid
NA	Unstable	NA	NA
	Stable	NA	NA

Incompatibility *(Materials to Avoid)* NA

Hazardous Decomposition or Byproducts NA

Hazardous Polymerization			Conditions to Avoid
NA	May Occur	NA	NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion? X

Health Hazards (Acute and Chronic)

EFFECT of OVEREXPOSURE

Inhilation: vapors or spray mist can cause headache, mausea & irritation of nose, throat and lungs.

Skin contact: irritating to skin upon repeated or prolonged contact.

Carcinogenicity: NA NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure

Eye contact: slightly irritating to eyes.

Medical Conditions Generally Aggravated by Exposure NA

Emergency and First Aid Procedures

Inhilation: Move subject to fresh air; see physician if needed

Eye/skin contact: flush eyes with large amount of water for at least 20 minutes. see physician if needed. Wash area with soap and water

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

eliminate all ignition sources; small spills may be collected with absorbant materials. observe all federal, state and local laws concerning health and environment.

Waste Disposal Method

incineration

Precautions to Be Taken in Handling and Storing

keep from freezing; keep from heat, sparks, and open flames.

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*

NIOSH approved respirator if needed

Ventilation	Local Exhaust	Special
	good ventilation	
	Mechanical *(General)*	Other

Protective Gloves	Eye Protection
impervious	safety goggles

Other Protective Clothing or Equipment

Work/Hygienic/Maintenance Practices

Good industrial hygiene should be exercised. Lung deposition of pigment is possible in spray finishing operations as mist or dust. Inflammatory condition in the lung may result.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* WATER REPELLANT TOP SPRAY

Section I

Manufacturer's Name: Wolverine LEathers	Emergency Telephone Number: 616-866-5619
Address (Number, Street, City, State, and ZIP Code): 123 N Main Street	Telephone Number for Information: 616-866-5619
Rockford, MI 49351	Date Prepared: 2/9/90
	Signature of Preparer (optional):

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
1-1-1 trichloethane (CAS 71-55-6)	350 ppm			99%
fluoroalkyl polymer	NE			1%

(hazard class ORM-A UN # 2831 methyl chloroform)

HMIS rating H 3
F 1
R 1
PP H

Section III — Physical/Chemical Characteristics

Boiling Point	165°F	Specific Gravity (H_2O = 1)	1.32 @ 77°F
Vapor Pressure (mm Hg.) 100 @ 20°C		Melting Point	N/A
Vapor Density (AIR = 1)	4.6	Evaporation Rate (Butyl Acetate = 1)	N/A

Solubility in Water: nil

Appearance and Odor: clear, colorless liquid with ether-like odor

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used): greater than 200°F TCC	Flammable Limits: N/A	LEL	UEL

Extinguishing Media: foam, dry chemical, CO_2, water fog

Special Fire Fighting Procedures: proper respiratory equipment to protect against the haz.effects of combustion. Water in straight hose stream may cause fire to spread & should be used as cooling medi

Unusual Fire and Explosion Hazards: vapor accumulations may flash and/or explode if ignited. Keep ignition sources, open flames, etc. away from these fumes.

Based on Draft of OSHA 174, September 1985

			Conditions to Avoid
	Unstable		
	Stable	X	exposure to excessive heat, open flames, and sparks, avoid conditions that favor the formation of excessive mists/fumes

Incompatibility *(Materials to Avoid)*
strong acids, alkalies, oxidizers, avoid contact with aluminum or titanium

Hazardous Decomposition or Byproducts
hydrogen chloride, phosgene gases from high temperatures

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion?

Health Hazards *(Acute and Chronic)*
eyes/ severe irritation and discomfort/ damage may occur
skin/ severe irritation and discomfort/ defatting of skin, dermatitis possible
inhalation/ dizziness, impaired coordination, headaches, loss of consciousness.
severe respiratory tract irritation.

Carcinogenicity: NTP? no IARC Monographs? no OSHA Regulated? no

Signs and Symptoms of Exposure
see health hazards above

Medical Conditions Generally Aggravated by Exposure
respiratory, dermatitis

Emergency and First Aid Procedures
eyes/ flush with plenty of water for 15 min./medical attention ifirritation persists
skin/ wash with mild soap and water/ medical attention if irritation persists.
inhalation/remove victim from area/ get medical attention if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
extinguish possible source of ignition./evacuate unprotected personnel/ventilate area/
wear protective clothing/ respiratory equipment/

Waste Disposal Method
dispose in accordance with local, state or federal regulations

Precautions to Be Taken in Handling and Storing
store away from heat source/ flame ignition/ sparks

Other Precautions
for large spills, don't flush into sewers or natural waterways/ dike area and clean
up with absorbants

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*
vapor and mist respirator

Ventilation	Local Exhaust	Special
	use local exhaust	
	Mechanical *(General)*	Other

Protective Gloves: use gloves
Eye Protection: goggles

Other Protective Clothing or Equipment
apron/ prevent contamination of clothing and skin contact

Work/Hygienic/Maintenance Practices
follow good safety habits

DISCLAIMER: Information and data herein are believed to be accurate and compiled from reliable sources. Buyer assumes all risk of use, storage and handling to comply with local, state and federal regulations. Wolverine Leathers makes no warranty express or implied concerning the accuracy or completeness of the informatin supplied.

MATERIAL SAFETY DATA SHEET

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IDENTITY *(As Used on Label and List)* WATER REPELLANT TOP SPRAY # 2

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-5766
Address (Number, Street, City, State, and ZIP Code): 123 N Main Street	Telephone Number for Information: 616-866-5766
Rockford MI 49351	Date Prepared: July 23, 1997
	Signature of Preparer (optional):

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
isopropyl alcohol				55
water				30
fluoroalkyl polymer				15
	HMIS	H 2		
		F 3		
		R 0		
		PP B		

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: YES

Appearance and Odor: CLEAR TO YELLOW ODOR OF ALCOHOL

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used): NA IPA 40 F	Flammable Limits: NA	LEL	UEL
Extinguishing Media: foam, dry chemical, CO_2, water, fog			

Special Fire Fighting Procedures: proper respiratory equipment

Unusual Fire and Explosion Hazards: vapor accumulations may flash and/or explode if ignited. Keep ignition sources, open flames, etc. away from these fumes.

NA = not available

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
			exposure to excessive heat, open flames, and sparks
	Stable	X	

Incompatibility (Materials to Avoid): NA

Hazardous Decomposition or Byproducts: NA

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion?

Health Hazards (Acute and Chronic)
eyes/severe irritation and discomfort
skin/defatting of skin, dermatitis possible
inhalation/dizziness, irration to respiratory tract

Carcinogenicity: NTP? NO IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure: see health hazards above

Medical Conditions Generally Aggravated by Exposure: respiratory, dermatitis

Emergency and First Aid Procedures
eyes/flush with plenty of water for 15 min./medical attention if irritation persists
skin/wash with mild soap and water/medical attention if irritation persists
inhalation/remove victim from area/get medical attention if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
extinguish possible source of ignition/ventilate area/wear protective clothing and respiratory equipment

Waste Disposal Method
dispose in accordance with local, state or federal regulations

Precautions to Be Taken in Handling and Storing
store away from heat source/flame ignition/sparks

Other Precautions
for large spills, don't flush into sewers or natural waterways/dike area and clean up with absorbants

Section VIII — Control Measures

Respiratory Protection (Specify Type): vapor/mist respirator if exhaustion is poor

Ventilation	Local Exhaust	Special
	use good exhaustion	
	Mechanical (General)	Other

Protective Gloves	Eye Protection
neoprene gloves	goggles

Other Protective Clothing or Equipment

Work/Hygienic/Maintenance Practices
follow good safety habits

DISCLAIMER: INFORMATION AND DATA HEREIN ARE BELIEVED TO BE ACCURATE AND COMPILED FROM RELIABLE SOURCES. BUYER ASSUMES ALL RISK OF USE, STORAGE AND HANDLING TO COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS. WOLVERINE LEATHERS MAKES NO WARRANTY EXPRESS OR IMPLIED CONCERNING THE ACCURACY OR COMPLETENESS OF THE INFORMATIOIN SUPPLIED.

MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. To be valid, all information required by § 1910.1200(g) of the Standard must appear on this form. Consult the Standard for specific requirements. Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY *(As Used on Label and List)* WATER REPELLANT TOP SPRAY # 2

Section I

Manufacturer's Name: Wolverine Leathers	Emergency Telephone Number: 616-866-5766
Address *(Number, Street, City, State, and ZIP Code)*: 123 N Main Street	Telephone Number for Information: 616-866-5766
Rockford MI 49351	Date Prepared: July 23, 1997
	Signature of Preparer *(optional)*:

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
isopropyl alcohol				55
water				30
fluoroalkyl polymer				15
	HMIS H 2			
	F 3			
	R 0			
	PP B			

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: YES

Appearance and Odor: CLEAR TO YELLOW ODOR OF ALCOHOL

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA IPA 40 F	Flammable Limits	NA	LEL / UEL

Extinguishing Media: foam, dry chemical, CO_2, water, fog

Special Fire Fighting Procedures: proper respiratory equipment

Unusual Fire and Explosion Hazards: vapor accumulations may flash and/or explode if ignited. Keep ignition sources, open flames, etc. away from these fumes.

NA = not available

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	exposure to excessive heat, open flames, and sparks

Incompatibility (Materials to Avoid): NA

Hazardous Decomposition or Byproducts: NA

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion?

Health Hazards (Acute and Chronic): eyes/severe irritation and discomfort
skin/defatting of skin, dermatitis possible
inhalation/dizziness, irration to respiratory tract

Carcinogenicity: NTP? NO IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure: see health hazards above

Medical Conditions Generally Aggravated by Exposure: respiratory, dermatitis

Emergency and First Aid Procedures:
eyes/flush with plenty of water for 15 min./medical attention if irritation persists
skin/wash with mild soap and water/medical attention if irritation persists
inhalation/remove victim from area/get medical attention if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled:
extinguish possible source of ignition/ventilate area/wear protective clothing and respiratory equipment

Waste Disposal Method:
dispose in accordance with local, state or federal regulations

Precautions to Be Taken in Handling and Storing:
store away from heat source/flame ignition/sparks

Other Precautions:
for large spills, don't flush into sewers or natural waterways/dike area and clean up with absorbants

Section VIII — Control Measures

Respiratory Protection (Specify Type): vapor/mist respirator if exhaustion is poor

Ventilation	Local Exhaust	Special
	use good exhaustion	
	Mechanical (General)	Other

Protective Gloves: neoprene gloves | Eye Protection: goggles

Other Protective Clothing or Equipment:

Work/Hygienic/Maintenance Practices:
follow good safety habits

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isopropyl alcohol				55
water				30
fluoroalkyl polymer				15
	HMIS	H 2		
		F 3		
		R 0		
		PP B		

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: YES

Appearance and Odor: CLEAR TO YELLOW ODOR OF ALCOHOL

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA IPA 40 F	Flammable Limits	NA	LEL / UEL

Extinguishing Media: foam, dry chemical, CO_2, water, fog

Special Fire Fighting Procedures: proper respiratory equipment

Unusual Fire and Explosion Hazards: vapor accumulations may flash and/or explode if ignited. Keep ignition sources, open flames, etc. away from these fumes.

NA = not available

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
			exposure to excessive heat, open flames, and sparks
	Stable	X	

Incompatibility (Materials to Avoid): NA

Hazardous Decomposition or Byproducts: NA

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion?

Health Hazards (Acute and Chronic): eyes/severe irritation and discomfort
skin/defatting of skin, dermatitis possible
inhalation/dizziness, irration to respiratory tract

Carcinogenicity: NTP? NO IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure: see health hazards above

Medical Conditions Generally Aggravated by Exposure: respiratory, dermatitis

Emergency and First Aid Procedures:
eyes/flush with plenty of water for 15 min./medical attention if irritation persists
skin/wash with mild soap and water/medical attention if irritation persists
inhalation/remove victim from area/get medical attention if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled:
extinguish possible source of ignition/ventilate area/wear protective clothing and respiratory equipment

Waste Disposal Method:
dispose in accordance with local, state or federal regulations

Precautions to Be Taken in Handling and Storing:
store away from heat source/flame ignition/sparks

Other Precautions:
for large spills, don't flush into sewers or natural waterways/dike area and clean up with absorbants

Section VIII — Control Measures

Respiratory Protection (Specify Type): vapor/mist respirator if exhaustion is poor

Ventilation	Local Exhaust	Special
	use good exhaustion	
	Mechanical (General)	Other

Protective Gloves	Eye Protection
neoprene gloves	goggles

Other Protective Clothing or Equipment

Work/Hygienic/Maintenance Practices: follow good safety habits

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	HMIS	H 2		
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		R 0		
		PP B		

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	NA
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water: YES

Appearance and Odor: CLEAR TO YELLOW ODOR OF ALCOHOL

Section IV — Fire and Explosion Hazard Data

Flash Point *(Method Used)*	NA IPA 40 F	Flammable Limits	NA	LEL / UEL

Extinguishing Media: foam, dry chemical, CO_2, water, fog

Special Fire Fighting Procedures: proper respiratory equipment

Unusual Fire and Explosion Hazards: vapor accumulations may flash and/or explode if ignited. Keep ignition sources, open flames, etc. away from these fumes.

NA = not available

Based on Draft of OSHA 174, September 1985.
Replaces obsolete OSHA Form 20 MSDS.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
			exposure to excessive heat, open flames, and sparks
	Stable	X	

Incompatibility (Materials to Avoid): NA

Hazardous Decomposition or Byproducts: NA

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? X Skin? X Ingestion?

Health Hazards (Acute and Chronic): eyes/severe irritation and discomfort
skin/defatting of skin, dermatitis possible
inhalation/dizziness, irration to respiratory tract

Carcinogenicity: NTP? NO IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure: see health hazards above

Medical Conditions Generally Aggravated by Exposure: respiratory, dermatitis

Emergency and First Aid Procedures:
eyes/flush with plenty of water for 15 min./medical attention if irritation persists
skin/wash with mild soap and water/medical attention if irritation persists
inhalation/remove victim from area/get medical attention if needed

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled:
extinguish possible source of ignition/ventilate area/wear protective clothing and respiratory equipment

Waste Disposal Method:
dispose in accordance with local, state or federal regulations

Precautions to Be Taken in Handling and Storing:
store away from heat source/flame ignition/sparks

Other Precautions:
for large spills, don't flush into sewers or natural waterways/dike area and clean up with absorbants

Section VIII — Control Measures

Respiratory Protection (Specify Type): vapor/mist respirator if exhaustion is poor

Ventilation	Local Exhaust	Special
	use good exhaustion	
	Mechanical (General)	Other

Protective Gloves	Eye Protection
neoprene gloves	goggles

Other Protective Clothing or Equipment:

Work/Hygienic/Maintenance Practices:
follow good safety habits

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CCURACY OR COMPLETENESS OF THE INFORMATIOIN SUPPLIED.

TFL USA/CANADA INC.
4214 Beechwood Drive
Greensboro, NC 27410

Effective Date: 6/06/01

Contact: Customer Service
8am to 5pm Phone: 1-800-266-5487
24-Hour Emergency Phone (Chemtrec):
1-800-424-9300

TOGETHER FOR LEATHER

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Trade Name: Magnopal® SOF-G
Product Code: 100600
Chemical Family: Polymer Dispersion
Intended Use : Softening Agent

2. HAZARDOUS COMPONENTS / INGREDIENT INFORMATION

CAS#	CHEMICAL IDENTITY	EXPOSURE LIMITS				CARCINOGEN STATUS		
		ACGIH		OSHA		IARC	NTP	OSHA
		TWA	STEL	STEL	PEL			
Proprietary Concentration:	Anionic Olefin/acrylate Copolymer > 40.00 % (Major)	NE	NE	NE	NE	N	N	N
111-76-2 Common Name: Concentration:	2-Butoxyethanol Butyl Cellosolve 10.00 % by wt	25 ppm	NE	75 ppm	50 ppm	N	N	N
112-88-9 Concentration:	Petroleum Hydrocarbon 3.00 % by wt	*5 mg/m3	NE	NE	*5 mg/m3	N	N	N

NE = Not Established N = No

3. HAZARDS IDENTIFICATION

HMIS Hazard Classification:

Health:	2
Flammability:	1
Reactivity:	0
Personal Protection:	C

Emergency Overview: May cause eye and skin irritation, especially with prolonged contact. The 2-butoxyethanol component is moderately toxic by ingestion and skin absorption with widespread and prolonged contact. May cause blood anemia injuries to the kidney and liver.

Route(s) of Entry: Inhalation if heated to form vapors or mists, eye contact and skin contact.

Eye: May cause irritation upon contact.

Skin Contact: Prolonged contact with skin may cause irritation. Irritation may be evidenced by reddening and swelling of affected area with possible itching, burning or other discomfort.

Skin Absorption: The 2-butoxyethanol component is moderately toxic by skin absorption with widespread and prolonged contact.

Ingestion: Ingestion may cause severe gastric disturbance.

Inhalation: Inhalation of heated, concetrated vapors may cause irritation of the respiratory system with accompanying dizziness and nausea; possible damage to internal organs.

Additional Hazards: * = oil mist

4. FIRST AID MEASURES

Eyes: Flush with water for 15 minutes. If irritation, or continued discoloration or discomfort develops see a physician.

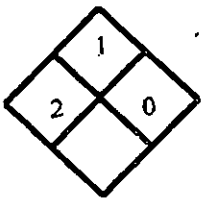
Skin: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Call a physician if symptoms occur. Wash clothing before reuse.

Ingestion: Treat symptoms and seek medical attention for any adverse effects.

Inhalation: Adverse effects are not expected with normal process exposures. If irritation develops, remove to fresh air. If irritation persists, seek medical attention.

5. FIRE FIGHTING MEASURES

NFPA Hazard Classification:



Flash Point: 203 °F (95. °C)

Fire Fighting Extinguishing Media: Carbon dioxide, alcohol resistant foam, dry chemical, water spray.

Fire Fighting Equipment: Use self contained breathing apparatus

Fire and Explosion Hazards: The 2-butoxyethanol component is combustible. Vapors and floating liquid may produce fire hazard.

Hazardous Combustion Products: Burning may produce carbon monoxide, carbon dioxide, and various hydrocarbons.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Contain spill. Avoid personal contact. Take up with absorbent material into approved closable container(s). Flush contaminated area with water. Wear protective equipment specified (Section 8). Spilled material may become slippery! Eliminate any sources of ignition!

Water Spill: Prevent entry into drains and surface water.

7. HANDLING AND STORAGE

Signal Word: CAUTION!

Precautions: May cause skin and eye irritation. Avoid contact with skin and eyes. Avoid inhalation of vapors or mists. Do not ingest. Wash thoroughly after handling. For industrial use only.

Special Handling: Handle as an eye and skin irritant. Contains petroleum distillates.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protective Equipment: To identify additional personal protective equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with with the OSHA PPE Standard (29 CFR 1910.132) be conducted before using this product.

Eye Protection: Safety glasses required. Goggles recommended if potential exists for direct exposure to splashes.

Skin Protection: Use impervious gloves, rubber or vinyl apron and protective neoprene or rubber boots.

Respiratory Protection: None normally required. Use a NIOSH approved respirator where there is likelihood of excessive inhalation of the product mist.

Engineering Controls: Work in well ventilated areas. Do not breath dust, mists or vapors.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellow liquid
Odor:	Characteristic odor
Solubility in Water:	Dispersible
Vapor Pressure:	120 mbar at 50 ° C (122. ° F)
Specific Gravity:	1.06
Evaporation Rate:	< 1 (butyl acetate = 1)

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Strong acids.

Hazardous Decomposition Products: Burning may produce oxides of carbon, and various hydrocarbons and oxides of sulfur.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Eye Irritation: Causes eyes irritation.

Skin Irritation: Causes skin irritation.

Acute Oral Effects: Overexposure to 2-butoxyethanol can lead to blood anemia injuries to the liver and kidney.

Toxicology Information: No other data has been made available.

12. ECOLOGICAL INFORMATION

Ecological Information: Prevent discharge or release into lakes, ponds or other waterways.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Waste must be disposed of in accordance with federal and local state regulations.

Disposal Information: Emptied container may contain product residue and should not be reused.

14. TRANSPORT INFORMATION

Reportable Quantity: Not applicable
Department of Transportation: Not regulated

15. REGULATORY INFORMATION

OSHA Status: This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

TSCA Inventory Status: All components are listed in TSCA inventory.

SARA Title III: Section 311/312 - Hazardous Chemical(s): Immediate (acute) health hazard.

SARA Title III: Section 313 - Toxic Chemical(s): This product contains a toxic chemical for routine annual 'Toxic Chemical Release Reporting' under Sec. 313 (40 CFR 372).

Glycol Ethers (2-butoxyethanol)	10%

16. OTHER INFORMATION

MSDS No:	631
Approved By:	Jim Biles
Approval Date:	06/07/01
Supersedes Date:	08/24/98

Disclaimer: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information onatianed herein. This material safety data sheet was prepared to comply with the OSHA Hazard Communication standard (29 CFR 1910.1200).

This supersedes any previous information.

Disposal

World Headquarters
Hach Company
P.O.Box 389
Loveland, CO USA 80539
(970) 669-3050

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Manganese III COD Vials. (20-1000 mg/l)
Catalog Number: 26234

Hach Company
P.O.Box 389
Loveland. CO USA 80539
(970) 669-3050

Emergency Telephone Numbers:
(Medical and Transportation)
(303) 623-5716 24 Hour Service
(515)232-2533 8am - 4pm CST

MSDS Number: M00926
Chemical Name: Not applicable
CAS No.: Not applicable
Chemical Formula: Not applicable
Chemical Family: Not applicable
Hazard: Causes severe burns. Harmful if inhaled. Recognized carcinogen.
Date of MSDS Preparation:
Day: 17
Month: December
Year: 1996

2. COMPOSITION / INFORMATION ON INGREDIENTS

Other components, each
CAS No.: Not applicable
TSCA CAS Number: Not applicable
Percent Range: < 1.0
Percent Range Units: weight / weight
LD50: Not applicable
LC50: Not applicable
TLV: Not established
PEL: Not established
Hazard: Not applicable

Sulfuric Acid
CAS No.: 7664-93-9
TSCA CAS Number: 7664-93-9
Percent Range: 45.0 - 55.0
Percent Range Units: weight / weight
LD50: Oral rat LD50 = 2140 mg/kg.
LC50: Inhalation rat LC50 = 87 ppm/4 hr, Inhalation Guinea Pig LC50 = 18 mg/m^3.
TLV: 1 mg/m^3 (TWA): 3 mg/m^3 (STEL)
PEL: 1 mg/m^3
Hazard: Causes severe burns. Harmful if inhaled. Recognized carcinogen.

Demineralized Water
CAS No.: 7732-18-5
TSCA CAS Number: 7732-18-5
Percent Range: 50.0 - 60.0

Percent Range Units: weight / weight
LD50: None reported
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: No effects anticipated.

3. HAZARDS IDENTIFICATION

Emergency Overview:
Appearance: Clear, colorless
Odor: Acidic
CAUSES SEVERE BURNS HARMFUL IF INHALED
CANCER HAZARD CONTAINS SULFURIC ACID WHICH CAN CAUSE CANCER

HMIS:
Health: 4
Flammability: 0
Reactivity: 2
Protective Equipment: X - See protective equipment, Section 8.
NFPA:
Health: 3
Flammability: 0
Reactivity: 2
Symbol: Water Reactive
Potential Health Effects:
Eye Contact: Causes severe burns
Skin Contact: Causes severe burns
Skin Absorption: None reported
Target Organs: None reported
Ingestion: Causes: severe burns May cause: circulatory disturbances diarrhea nausea vomiting rapid pulse and respirations
Target Organs: None reported
Inhalation: Toxic. Causes: severe burns May cause: difficult breathing mouth soreness teeth erosion
Target Organs: Lungs
Medical Conditions Aggravated: Pre-existing: Eye conditions Skin conditions Respiratory conditions
Chronic Effects: Chronic overexposure may cause erosion of the teeth chronic irritation or inflammation of the lungs cancer
Cancer / Reproductive Toxicity Information:
This product does NOT contain any OSHA listed carcinogens.

An ingredient of this mixture is: IARC Group 1: Recognized Carcinogen
Sulfuric Acid - The IARC evaluation was based on exposure to the mist or vapor of concentrated sulfuric acid generated during chemical processes.
This product does NOT contain any NTP listed chemicals.

Additional Cancer / Reproductive Toxicity Information: None reported
Toxicologically Synergistic Products: None reported

4. FIRST AID

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.
Skin Contact (First Aid): Wash skin with plenty of water for 15 minutes. Remove contaminated clothing. Call physician immediately.
Ingestion (First Aid): Do not induce vomiting. Give 1-2 glasses of water. Never give anything by mouth to an unconscious person. Call physician immediately.
Inhalation: Remove to fresh air. Give artificial respiration if necessary. Call physician.

5. FIRE FIGHTING MEASURES

Flammable Properties: Not Flammable, but reacts with most metals to form flammable hydrogen gas. During a fire, corrosive and toxic gases may be generated by thermal decomposition.
Flash Point: Not applicable
Method: Not applicable
Flammability Limits:
Lower Explosion Limits: Not applicable
Upper Explosion Limits: Not applicable
Autoignition Temperature: Not applicable
Hazardous Combustion Products: This material will not burn.
Fire / Explosion Hazards: Contact with metals gives off hydrogen gas which is flammable
Static Discharge: None reported.
Mechanical Impact: None reported
Extinguishing Media: Dry chemical. Do NOT use water.
Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear. Evacuate area and fight fire from a safe distance.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:
Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance.
Containment Technique: Absorb spilled liquid with non-reactive sorbent material. Stop spilled material from being released to the environment.
Clean-up Technique: Cover spilled material with an alkali, such as soda ash or sodium bicarbonate. Scoop up slurry into a large beaker. Adjust to a pH between 6 and 9. Use sulfuric or citric acid to lower pH. Use soda ash or sodium bicarbonate to increase pH. Flush reacted material to the drain with a large excess of water. Decontaminate the area of the spill with a soap solution.
Evacuation Procedure: Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: any quantity is spilled. If conditions warrant, increase the size of the evacuation.
Special Instructions (for accidental release): Mixture contains a component which is regulated as hazardous waste. Mixture contains a component which is regulated as a water pollutant.
304 EHS RQ (40 CFR 355): Sulfuric Acid - RQ 1000 lbs.
D.O.T. Emergency Response Guide Number: 137

7. HANDLING / STORAGE

Handling: Avoid contact with eyes skin clothing Do not breathe mist or vapors. Wash thoroughly after handling. Use with adequate ventilation. Maintain general industrial hygiene practices when using this product.
Storage: Keep container tightly closed when not in use. Protect from: heat Keep away from: alkalies oxidizers reducers

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Have an eyewash station nearby. Have a safety shower nearby. Use general ventilation to minimize exposure to mist, vapor or dust. Maintain general industrial hygiene practices when using this product.
Personal Protective Equipment:
Eye Protection: safety glasses with top and side shields
Skin Protection: disposable latex gloves lab coat
Inhalation Protection: adequate ventilation
Precautionary Measures: Avoid contact with: eyes skin clothing Do not breathe: mist/vapor Wash thoroughly after handling. Use with adequate ventilation. Protect from: heat Keep away from: alkalies oxidizers reducers
TLV: Not established
PEL: Not established

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, colorless
Physical State: Liquid
Molecular Weight: Not applicable
Odor: Acidic
pH: <0.5
Vapor Pressure: Not determined
Vapor Density (air = 1): Not determined
Boiling Point: Not determined
Melting Point: Not determined
Specific Gravity (water = 1): Not determined
Evaporation Rate (water = 1): Not determined
Volatile Organic Compounds Content: Not applicable
Partition Coefficient (n-octanol / water): Not applicable
Solubility:
Water: Miscible
Acid: Miscible
Other: Not determined
Metal Corrosivity:
Steel: Not determined
Aluminum: Not determined

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Conditions to Avoid: Excess moisture Extreme temperatures Heating to decomposition.
Reactivity / Incompatibility: May react violently in contact with: acetic acid caustics chlorosulfonic acid oxidizers reducers water (moisture)
Hazardous Decomposition: Contact with metals may release flammable hydrogen gas. Heating to decomposition releases toxic and/or corrosive fumes of: sulfur oxides
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:
LD50: None reported
LC50: None reported
Dermal Toxicity Data: None reported
Skin and Eye Irritation Data: None reported
Mutation Data: None reported
Reproductive Effects Data: None reported
--
Ingredient Toxicological Data: Sulfuric Acid: Oral rat LD_{50} = 2140 mg/kg; Inhalation rat LC_{50} = 347 ppm/1hr.

12. ECOLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product.
Ingredient Ecological Information: --
No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: D002
Special Instructions (Disposal): Work in an approved fume hood. Dilute material with excess water making a weaker than 5% solution. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.
Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste.
NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

D.O.T.:
D.O.T. Proper Shipping Name: Sulphuric Acid Solution
--
DOT Hazard Class: 8
DOT Subsidiary Risk: NA
DOT ID Number: UN2796
DOT Packing Group: II
I.C.A.O.:
I.C.A.O. Proper Shipping Name: Sulphuric Acid Solution
--
ICAO Hazard Class: 8
ICAO Subsidiary Risk: NA
ICAO ID Number: UN2796
ICAO Packing Group: II
I.M.O.:
I.M.O. Proper Shipping Name: Sulphuric Acid Solution
--
I.M.O. Hazard Class: 8

I.M.O. Subsidiary Risk: NA
I.M.O. ID Number: UN2796
I.M.O. Packing Group: II

15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

E.P.A.:

S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): Immediate (Acute) Health Hazard Reactive Delayed (Chronic) Health Hazard

S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

--

302 (EHS) TPQ (40 CFR 355): Sulfuric Acid 1000 lbs.
304 CERCLA RQ (40 CFR 302.4): Sulfuric Acid 1000 lbs.
304 EHS RQ (40 CFR 355): Sulfuric Acid - RQ 1000 lbs.
Clean Water Act (40 CFR 116.4): Sulfuric acid - RQ 1000 lbs.
RCRA: Contains RCRA regulated substances. See Section 13, EPA Waste ID Number.

C.P.S.C.: The label for this product bears the signal word "POISON" because the concentration of Sulfuric Acid in the product is greater than/equal to 10%.

State Regulations:

California Prop. 65: No Prop. 65 listed chemicals are present in this product.
Identification of Prop. 65 Ingredient(s): None

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).
TSCA CAS Number: Not applicable

16. OTHER INFORMATION

Intended Use: Determination of Chemical Oxygen Demand

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. IARC Monographs on the Evaluation of the Carcinogenic Risks to Humans. World Health Organization (Volumes 1-42) Supplement 7. France: 1987. List of Dangerous Substances Classified in Annex I of the EEC Directive (67/548) - Classification, Packaging and Labeling of Dangerous Substances, Amended July 1992. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. Sixth Annual Report on Carcinogens, 1991. U.S. Department of Health and Human Services. Rockville, MD: Technical Resources, Inc. 1991. Technical Judgment. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists. 1992. Vendor Information.

Legend:

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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MINERAL MASTERS

130 W. GRAND LAKE BLVD., WEST CHICAGO, IL. 60185
630-293-7727/630-293-7765 FAX

FOR CHEMICAL EMERGENCY SPILL, LEAK, EXPOSURE, OR ACCIDENT CALL CHEMTREC, 1-800-423-9300

MATERIAL SAFETY DATA SHEET
REVISED 2/1/01

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: MANGANESE SULFATE PRODUCE CODE: 5147

CHEMICAL FAMILY:
SALT

CHEMICAL NAME & SYNONYMS:
MANGENESE (II) SULFATE, HYDRATED
MANGANOUS (II) SULFATE, HYDRATE

CHEMICAL FORMULA:	% BY WEIGHT	CAS NO:
$MnSO_4$	96.8	7785-87-7

SECTION 2. HAZARDOUS INGREDIENTS

HAZARDOUS MIXTURES OF LIQUIDS, SOLIDS OR GASES	OSHA PEL CEILING:*	ACGIH TLV CEILING:	OTHER LIMITS RECOMMENDED IDLH LEVEL*	(%) (OPTIONAL)
MANGANESE SULFATE MONOHYDRATE	5 mg/m^3	10,000 ppm		

TSCH LISTED

*Based on limits for Manganese

SECTION 3. PHYSICAL DATA

APPEARANCE (SOLID, LIQUID, GAS): CRYSTALLINE
MOLECULAR WEIGHT: 169.02
MELTING POINT: (-H_2O) @ Ca. 350^0 C
SPECIFIC GRAVITY: Ca.0.8
COLOR: PALE PINK
BULK DENSITY: 75.6 lbs./cu.ft. (loose)
86.0 lbs./cu.ft. (compacted)
BOILING POINT: 850^0 C
VAPOR PRESSURE: N/A
WATER SOLUBLE 30.65 %
ODOR: NONE
EVAPORATION RATE(BUTYL ACETATE=1) N/A

SECTION 4. FIRE AND EXPLOSION DATA

FLASH POINT (METHOD): N/A
FLAMMABLE LIMITS: N/A LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: USE EXTINGUISHING AGENTS SUITABLE TO SURROUNDING MATERIAL.

SPECIAL FIRE FIGHTING PROCEDURES: FIRE FIGHTERS SHOULD BE EQUIPPED WITH PROTECTIVE CLOTHING INCLUDING SELF CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE OR EXPLOSION HAZARDS: UNDER FIRE CONDITIONS, TOXIC FUMES AND GASES MAY BE EVOLVED FORM THIS MATERIAL (SEE ACTIVITY DATA)

SECTION 5. TOXICITY DATA

LD50, ORAL (INGESTION 1600-3200 mg/kg (rat); 800-1600 mg/kg (mus)
LD50, DERMAL (SKIN CONTACT): 1 g/kg; slight irritation

Sara

INHALATION: CAN CAUSE FLU LIKE SYMPTOMS, RESPIRATORY DISCOMFORT, PERMANENT INJURY.

EFFECTS TO EYES: SLIGHT IRRITATION

EFFECTS TO LUNGS: WILL AGGRAVATE UPPER RESPIRATORY CONDITIONS, CAN CAUSE PNEUMONITIS

SKIN IRRITATION: SLIGHT SKIN IRRITATION

NTP: NO

LARC MONOGRAPHS: NO

OSHA REGULATED: MANGANESE COMPOUNDS ARE REGULATED/

EMERGENCY FIRST AID PROCEDURES: (EFFECTS OF OVER EXPOSURE
TOXICITY OF MANGANESE SULFATE IS NORMALLY BASED ON THE CHARACTERISTICS F MANGANESE, HOWEVER, NO NEUTROTOXICITY OR PULMONARY EFFECTS HAVE BEEN SEEN WITH EMPLOYEES WHICH HAVE WORKED WITH MANGANESE SULFATE FEED SUPPLEMENTS, DEMONSTRATING ONLY IRRITATION OF THE NASAL MUCOUS MEMBRANES. WASH ALL SKIN CONTACTED WITH SOAP AND WATER. RINSE EYES EXPOSED FOR AT LEAST 15 MINUTES WITH WATER. REMOVE INHALATION VICTOM TO FRESH AIR, APPLY MOUTH TO MOUTH RESUSCITATION IF NOT BREATHING, ADMINISTER OXYGEN IF BREATHING IS LABORED. CONTACT A PHYSICIAN OR POISON CONTACT CENTER IMMEDIATELY IF INGESTED. OBTAIN MEDICAL ASSISTANCE FOR ALL INJURIES.

TARGET ORGAN: UPPER RESPITORY, CENTRAL NERVOUS SYSTEM

SECTION 6. REACTIVITY DATA

STABILITY: STABLE POLYMERIZATION: NONE
INCOMPATIBILITY: AVOID STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS: DECOMPOSITION PRODUCTS INCLUDE MANGANOUS OXIDE AND TOXIC FUMES OF SOX.

SECTION 7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
WEARING DUST MASK, SAFETY GOGGLES, AND GLOVES TO AN APPROVED LABEL WASTE CONTAINER.

WASTE DISPOSAL METHOD:
PROPERLY PACKAGED SOLID MATERIAL CAN BE LAND FILLED. SOLUTIONS CAN BE ABSORBED ONTO AN INERT ABSORBENT AND LAND FILLED OR PRECIPITATED WITH LIME FOR LANDFILL DISPOSAL.

SECTION 8. SPECIAL PROTECTION DATA

RESPIRATOR TYPE: WEAR OSHA APPROVED PARTICULATE DUST MASK IN HIGH DUST AREA.

EYE PROTECTION: SAFETY/GOGGLES ARE RECOMMENDED

GLOVES: TIGHT WEAVE COTTON OR RUBBER GLOVES ARE RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT: WEAR PROTECTIVE WORK CLOTHING; LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 9. SPECIAL PRECAUTIONS AND STORAGE DATA

STORAGE TEMPERATURE: N/A
AVERAGE SHELF LIFE: N/A
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: STORE IN A COOL, DRY AREA IN TIGHTLY SEALED CONTAINERS AWAY FROM STRONG ACIDS OR OXIDIZERS. KEEP AWAY FROM ORNAMENTAL SURFACES.

SECTION 10. SHIPPING DATA

D.O.T. SHIPPING NAME:	N/A
D.O.T. HAZARD CLASSIFICATION:	N/A
FREIGHT SHIPPING NAME AND CLASS:	MANGANESE SULFATE NMFC IT.45200 CL60
D.O.T. LABELS REQUIRED:	NONE

REGULATORY STATUS

PRODUCT OR COMPONENT OF PRODUCTS	CERCLA SEC.103 RQ.LBS.	RCRA SEC. 261.33	SARA EHS SEC.302 RQ TPQ	SARA 313 NAME LIST	CHEMICALS CHEMICAL CATEGORY
N450 MANGANESE SULFATE MONOHYDRATE (7785-87-7)	YES	NO	YES	YES	YES

SARA SECTION 302 EHS RQ:
REPORTABLE QUANTITY OF EXTREMELT HAZARDOUS SUBSTANCE, LISTED AT 40 CFR 355.

SARA SECTION 302 EHS TPQ:

THRESHOLD PLANNING QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE. AN ASTERISK (*) FOLLOWING A THRESHOLD PLANNING QUANTITY SIGNIFIES THAT IF THE MATERIAL IS A SOLID AND HAS A PARTICLE SIZE EQUAL TO OR LARGER THAN 100 MICROMETERS, THE THRESHOLD PLANNING QUANTITY = 10,000 LB ^A.

SARA SECTION 3133 CHEMICALS:
TOXIC SUBSTANCES SUBJECT TO ANNUAL RELEASE REPORTING REQUIREMENTS LISTED AT 40 CFR 372.65.

CERCLA SEC. 103

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (SUPER FUND). RELEASES TO AIR, LAND OR WATER OF THESE HAZARDOUS SUBSTANCES WHICH EXCEED THE REPORTABLE QUANTITY (RQ) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER. (800-424-8802) LISTED AT 40 CFR 302.4.

RCRA:
RESOURCE CONSERVATION AND RECLAMATION ACT. COMMERCIAL PRODUCT WASTES DESIGNATED AS ACUTE HAZARDOUS AND TOXIC UNDER 40 CFR.261.33.

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MINERAL MASTERS

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WOLVERINE LEATHER
123 MAIN ST.
ROCKFORD, MI 49351

WWW_104(e)_016346

MATERIAL SAFETY DATA SHEET

Marden-Wild of Canada Ltd.
3 McCully Street, P.O. Box 518, Amherst, N.S., Canada, B4H 4A1
(617) 245-1124 or (902) 667-2424

SECTION I : Material Identification and Use

Trade Name ..... Mardol RCO # 4
Product Use ..... A blend of natural and petroleum based oil used in leather manufacturer.

SECTION II : Hazardous Ingredients

Hazardous Ingredients	%	CAS #
Hydrotreated light naphthenic distillate petroleum	25-35	CAS # 64742-53-6
Hydrotreated heavy naphthenic distillate petroleum		CAS # 64743-53-5

TWA/TLV - 5 mg/m³ for oil mist in air based on OSHA Regulation 29 CFR 1910.1200. Note TLV based on petroleum portion of the product.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

Health - 1	Fire - 1	Reactivity - 0

SECTION III : Physical Data

Appearance (@ 68 ° F)	medium brown oil	Evaporation Rate	Not available
Odour	distinct	Boiling Point (° F)	Not available
Specific Gravity	0.98 - 1.0	Melting Point (° F)	Not available
Vapour Pressure (mmHg)	Not available	pH	Not available
Vapour Density (Air = 1)	Not available	Solubility in Water	Insoluble

SECTION IV : Fire & Explosion Hazard Data

Flash Point (Method) - > 302 ° F (PMCC)		Auto-Ignition Temp - n/a
Explosion Limits in Air (% by vol.)	Upper Limit - Not Available	Lower Limit - Not Available
Extinguishing Media	Foam, carbon dioxide, dry chemical	

SPECIAL FIRE FIGHTING PROCEDURES - Fire-fighters should be equipped with self-contained breathing apparatus. Use water to keep fire-exposed containers cool. Do not spray water directly into fire as this may cause dispersion of the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS - None

SECTION V : Reactivity Data

Chemical Stability	Stable	Incompatible Materials	Oxidizing Agents
Hazardous Polymerization	Will Not Occur	Conditions to Avoid	Extreme Heat
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and toxic fumes upon incomplete combustion.		

SECTION VI : Health Hazard Data

SKIN CONTACT : Contact may cause skin irritation, long term contact may cause dermatitis.

EYES : Contact will cause irritation , redness, tearing.

INHALATION : This material may be a respiratory tract irritant. Prolonged exposure to this material at elevated temperatures may cause respiratory tract irritation.

INGESTION : No specific information available.

Chronic Overexposure Effects	No information available	Carcinogen.	No

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapours, mists or fumes should be minimized.

Pre-existing medical conditions which may be aggravated by exposure : skin contact may aggravate an existing dermatitis.

SECTION VII : Preventative Measures

RESPIRATORY PROTECTION	Required above cited TLV or when mists/fumes are formed. Use only NIOSH/OSHA approved respirators for dust/mist/organic vapours.
EYES	Safety glasses / goggles or face shield
PROTECTIVE GLOVES	Neoprene or rubber
OTHER PROTECTIONS	Safety shower and eye wash

SPECIFIC ENGINEERING CONTROLS : Local exhaust recommended. Mechanical ventilation recommended to maintain vapours below cited TLV, or if mists and fumes are produced.

LEAKS & SPILL PROCEDURE : Stop spill if safe to do so. Wear appropriate protective equipment. Provide ventilation and remove any sources of ignition. Pump up or use absorbent material to collect oil, place in a covered identified container for disposal. Keep material out of sewers and water courses.

WASTE DISPOSAL : For disposal, contract with licensed chemical disposal agency. Discharge treatment or disposal may be subject to federal, state or local regulations. Empty containers may contain hazardous residue, dispose of properly.

STORAGE REQUIREMENTS : Store in a cool well ventilated area. Keep away from heat, strong oxidizers and ignition sources. Keep containers closed when not in use.

SECTION VIII : First Aid Measures

EYES : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If any signs of irritation or chemical burn, get prompt medical attention.

SKIN : Wash the skin with soap and water. If the material penetrates the protective clothing, remove the clothing and flush the skin with soap and water. Remove severely contaminated clothing and launder before reuse.

INHALATION : Move victim to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or CPR. Immediately obtain medical attention.

INGESTION : If swallowed, give water to drink and immediately telephone for medical advise. Do Not Induce Vomiting unless directed by medical personnel. If medical advice can not be obtained, then take the person and the product to the nearest medical emergency treatment center or hospital.

SECTION IX : Preparation Date of Material Safety Data Sheet

Prepared By (Marden-Wild of Canada Ltd.)	P. Butler
Phone Number	(902) 667-2424
Dated Prepared	September 29, 1995

DISCLAIMER of LIABILITY

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

MATERIAL SAFETY DATA SHEET

Marden-Wild of Canada Ltd.
3 McCully Street, Amherst, N.S., Canada, B4H 4H9
(781) 245-1124 or (902) 667-2424

SECTION I - Material Identification and Use

Trade Name ..... Mardol 40-T
Product Use ..... An blend of synthetic waxes and oils used in leather manufacturer.

SECTION II - Hazardous Ingredients

Hazardous Ingredients	%	CAS #
Distillates (petroleum), hydrotreated light naphthenic	10 - 20	64742-53-6
Distillates (petroleum), hydrotreated heavy naphthenic		64742-52-5
Components are listed on TSCA Inventory		

TWA/TLV - 2 mg/m^3 for wax fumes, mist in air, recommended by ACGIH. (Note stated TLV for wax portion of product) 5 mg/m^3 for oil mist (aerosol) for an 8 hour workday (OSHA Regulation 29 CFR 1910.1200 and ACGIH. ACGIH states that the air is to be sampled by a method that does not collect vapour and it lists a 10 mg/m^3 STEL (Note stated TLV for petroleum portion of product)

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

Health - 1	Fire - 1	Reactivity - 0

SECTION III - Physical Data

Appearance (@ 68 ° F)	light yellow wax	Evaporation Rate	Not available
Odour	slight petroleum odour	Boiling Point (° F)	Not available
Specific Gravity	0.78 - 0.84	Melting Point (° F)	110 ° F
Vapour Pressure (mmHg)	Not available	pH	Not available
Vapour Density (Air = 1)	Not available	Solubility in Water	insoluble

SECTION IV - Fire & Explosion Hazard Data

Flash Point (Method) - > 320 ° F, PMCC		Auto-Ignition Temp - n/a
Explosion Limits in Air (% by vol.)	Upper Limit - Not Available	Lower Limit - Not Available
Extinguishing Media	Foam, carbon dioxide, dry chemical	

SPECIAL FIRE FIGHTING PROCEDURES - Fire-fighters should be equipped with self-contained breathing apparatus. Use water to keep fire-exposed containers cool. Do not spray water directly into fire as this may cause dispersion of the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS - None

SECTION V : Reactivity Data

Chemical Stability	Stable	Incompatible Materials	Oxidizing Agents
Hazardous Polymerization	Will Not Occur	Conditions to Avoid	Extreme Heat
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and toxic fumes upon incomplete combustion.		

SECTION VI : Health Hazard Data

SKIN CONTACT : Contact may cause skin irritation, long term contact may cause dermatitis. Molten material will cause burns on contact with skin.

EYES : Contact with molten material will cause burns. Fumes may be slightly irritating.

INHALATION : This material may be a respiratory tract irritant. Prolonged exposure to this material at elevated temperatures may cause respiratory tract irritation.

INGESTION : No specific information available.

Chronic Overexposure Effects	No information available	Carcinogen.	No

Pre-existing medical conditions which may be aggravated by exposure : skin contact may aggravate an existing dermatitis.

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapours, mists or fumes should be minimized.

SECTION VII : Preventative Measures

RESPIRATORY PROTECTION	Required above cited TLV or when mists/fumes are formed. Use only NIOSH/OSHA approved respirators for dust/mist/organic vapours.
EYES	Safety glasses / goggles or face shield
PROTECTIVE GLOVES	Neoprene or rubber
OTHER PROTECTIONS	Safety shower and eye wash

SPECIFIC ENGINEERING CONTROLS : Local exhaust recommended. Mechanical ventilation recommended to maintain vapours below cited TLV, or if mists and fumes are produced.

LEAKS & SPILL PROCEDURE : Stop spill if safe to do so. Wear appropriate protective equipment. Provide ventilation and remove any sources of ignition. Use absorbent material to collect oil/wax, place in a covered identified container for disposal. Keep material out of sewers and water courses.

WASTE DISPOSAL : For disposal, contract with licensed chemical disposal agency. Discharge treatment or disposal may be subject to federal, state or local regulations. Empty containers may contain hazardous residue, dispose of properly.

STORAGE REQUIREMENTS : Store in a cool well ventilated area. Keep away from heat, strong oxidizers and ignition sources. Keep containers closed when not in use.

SECTION VIII : First Aid Measures

EYES : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If any signs of irritation or burns, get prompt medical attention.

SKIN : Wash the skin with soap and water. If the material penetrates the protective clothing, remove the clothing and flush the skin with soap and water. Remove severely contaminated clothing and launder before reuse.

INHALATION : Move victim to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or CPR. Immediately obtain medical attention.

INGESTION : If swallowed, give water to drink and immediately telephone for medical advise. Do Not Induce Vomiting unless directed by medical personnel. If medical advice can not be obtained, then take the person and the product to the nearest medical emergency treatment center or hospital.

SECTION IX : Preparation Date of Material Safety Data Sheet

Prepared By (Marden-Wild of Canada Ltd.)	P. Butler
Phone Number	(902) 667-2424
Dated Prepared	June 2000
Supersedes MSDS Dated	

DISCLAIMER of LIABILITY

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

MATERIAL SAFETY DATA SHEET

Marden-Wild of Canada Ltd.
3 McCully Street, Amherst, N.S., Canada, B4H 4H9
(781) 245-1124 or (902) 667-2424

SECTION I : Material Identification and Use

Trade Name ..... Mardol 55-T
Product Use ..... An blend of synthetic waxes and oils used in leather manufacturer.

SECTION II : Hazardous Ingredients

Hazardous Ingredients	%	CAS #
Distillates (petroleum), hydrotreated light naphthenic	10 - 20	64742-53-6
Distillates (petroleum), hydrotreated heavy naphthenic		64742-52-5
Components are listed on TSCA Inventory		

TWA/TLV - 2 mg/m^3 for wax fumes, mist in air, recommended by ACGIH. (Note stated TLV for wax portion of product) 5 mg/m^3 for oil mist (aerosol) for an 8 hour workday (OSHA Regulation 29 CFR 1910.1200 and ACGIH. ACGIH states that the air is to be sampled by a method that does not collect vapour and it lists a 10 mg/m^3 STEL (Note stated TLV for petroleum portion of product)

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

Health - 1	Fire - 1	Reactivity - 0

SECTION III : Physical Data

Appearance (@ 68 ° F)	light brown wax	Evaporation Rate	Not available
Odour	slight petroleum odour	Boiling Point (° F)	Not available
Specific Gravity	0.78 - 0.84	Melting Point (° F)	110 ° F
Vapour Pressure (mmHg)	Not available	pH	Not available
Vapour Density (Air = 1)	Not available	Solubility in Water	insoluble

SECTION IV : Fire & Explosion Hazard Data

Flash Point (Method) - > 320 ° F, PMCC		Auto-Ignition Temp - n/a
Explosion Limits in Air (% by vol.)	Upper Limit - Not Available	Lower Limit - Not Available
Extinguishing Media	Foam, carbon dioxide, dry chemical	

SPECIAL FIRE FIGHTING PROCEDURES - Fire-fighters should be equipped with self-contained breathing apparatus. Use water to keep fire-exposed containers cool. Do not spray water directly into fire as this may cause dispersion of the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS - None

SECTION V : Reactivity Data

Chemical Stability	Stable	Incompatible Materials	Oxidizing Agents
Hazardous Polymerization	Will Not Occur	Conditions to Avoid	Extreme Heat
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and toxic fumes upon incomplete combustion.		

SECTION VI : Health Hazard Data

SKIN CONTACT : Contact may cause skin irritation, long term contact may cause dermatitis. Molten material will cause burns on contact with skin.

EYES : Contact with molten material will cause burns. Fumes may be slightly irritating.

INHALATION : This material may be a respiratory tract irritant. Prolonged exposure to this material at elevated temperatures may cause respiratory tract irritation.

INGESTION : No specific information available.

Chronic Overexposure Effects	No information available	Carcinogen.	No

Pre-existing medical conditions which may be aggravated by exposure : skin contact may aggravate an existing dermatitis.

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapours, mists or fumes should be minimized.

SECTION VII : Preventative Measures

RESPIRATORY PROTECTION	Required above cited TLV or when mists/fumes are formed. Use only NIOSH/OSHA approved respirators for dust/mist/organic vapours.
EYES	Safety glasses / goggles or face shield
PROTECTIVE GLOVES	Neoprene or rubber
OTHER PROTECTIONS	Safety shower and eye wash

SPECIFIC ENGINEERING CONTROLS : Local exhaust recommended. Mechanical ventilation recommended to maintain vapours below cited TLV, or if mists and fumes are produced.

LEAKS & SPILL PROCEDURE : Stop spill if safe to do so. Wear appropriate protective equipment. Provide ventilation and remove any sources of ignition. Use absorbent material to collect oil/wax, place in a covered identified container for disposal. Keep material out of sewers and water courses.

WASTE DISPOSAL : For disposal, contract with licensed chemical disposal agency. Discharge treatment or disposal may be subject to federal, state or local regulations. Empty containers may contain hazardous residue, dispose of properly.

STORAGE REQUIREMENTS : Store in a cool well ventilated area. Keep away from heat, strong oxidizers and ignition sources. Keep containers closed when not in use.

SECTION VIII - First Aid Measures

EYES : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If any signs of irritation or burns, get prompt medical attention.

SKIN : Wash the skin with soap and water. If the material penetrates the protective clothing, remove the clothing and flush the skin with soap and water. Remove severely contaminated clothing and launder before reuse.

INHALATION : Move victim to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or CPR. Immediately obtain medical attention.

INGESTION : If swallowed, give water to drink and immediately telephone for medical advise. Do Not Induce Vomiting unless directed by medical personnel. If medical advice can not be obtained, then take the person and the product to the nearest medical emergency treatment center or hospital.

SECTION IX - Preparation Date of Material Safety Data Sheet

Prepared By (Marden-Wild of Canada Ltd.)	P. Butler
Phone Number	(902) 667-2424
Dated Prepared	June 2000
Supersedes MSDS Dated	April 23, 1996

DISCLAIMER of LIABILITY

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The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

MATERIAL SAFETY DATA SHEET

Marden-Wild of Canada Ltd.
3 McCully Street, P.O. Box 518, Amherst, N.S., Canada, B4H 4A1
(617) 245-1124 or (902) 667-2424

SECTION I : Material Identification and Use

Trade Name ..... **Mardol 1391**
Product Use ..... A natural/synthetic grease with solvent used in leather manufacturer.

SECTION II : Hazardous Ingredients

Hazardous Ingredients	%	CAS #
Hydrotreated heavy naphtha, petroleum (COMBUSTIBLE by OSHA Regulations)	25-30	CAS # 64742-48-9

TWA/TLV - Not established for entire product - 300 ppm (2100 mg/m^3) for an 8 hour work day for naphtha petroleum portion.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

Health - 1	Fire - 2	Reactivity - 0

SECTION III : Physical Data

Appearance (@ 68 °F)	medium brown oil	Evaporation Rate	Not available
Odour	slight	Boiling Point (°F)	Not available
Specific Gravity	0.90 - 0.94	Melting Point (°F)	Not available
Vapour Pressure (mmHg)	Not available	pH	Not available
Vapour Density (Air = 1)	Not available	Solubility in Water	insoluble

SECTION IV : Fire & Explosion Hazard Data

Flash Point (Method) - > 145 °F (TCC)		Auto-Ignition Temp - 640 °F
Explosion Limits in Air (% by vol.)	Upper Limit - 8.8 @ 77 °F	Lower Limit - 1.3 @ 77 °F
Extinguishing Media	Foam, carbon dioxide, dry chemical	

SPECIAL FIRE FIGHTING PROCEDURES - Fire-fighters should be equipped with self-contained breathing apparatus. Use water to keep fire-exposed containers cool. Do not spray water directly into fire as this may cause dispersion of the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Combustible liquid, can form combustible mixtures at temperatures at or above the flash point. Static discharge, material can accumulate static charges which can cause an incendiary electrical discharge. Empty containers retain product residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks, static electricity or other sources of ignition. This liquid is volatile and gives off invisible vapours. Either the liquid or the vapour may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode. Keep containers closed when not being used.

SECTION V : Reactivity Data

Chemical Stability	Stable	Incompatible Materials	Oxidizing Agents
Hazardous Polymerization	Will Not Occur	Conditions to Avoid	Extreme Heat
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and toxic fumes upon incomplete combustion.		

SECTION VI : Health Hazard Data

SKIN CONTACT : Contact may cause skin irritation, long term contact may cause dermatitis.

EYES : Contact will cause irritation , redness, tearing.

INHALATION : High vapour/aerosol concentrations (>1000 ppm) are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death.

INGESTION : No specific information available. Small amounts aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Chronic Overexposure Effects	No information available	Carcinogen.	No

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapours, mists or fumes should be minimized.

Pre-existing medical conditions which may be aggravated by exposure : skin contact may aggravate an existing dermatitis.

SECTION VII : Preventative Measures

RESPIRATORY PROTECTION	Required above cited TLV or when mists/fumes are formed. Use only NIOSH/OSHA approved respirators for dust/mist/organic vapours.
EYES	Safety glasses / goggles or face shield
PROTECTIVE GLOVES	Neoprene or rubber
OTHER PROTECTIONS	Safety shower and eye wash

SPECIFIC ENGINEERING CONTROLS : Local exhaust recommended. Mechanical ventilation recommended to maintain vapours below cited TLV, or if mists and fumes are produced.

LEAKS & SPILL PROCEDURE : Stop spill if safe to do so. Wear appropriate protective equipment. Provide ventilation and remove any sources of ignition. Pump up or use absorbent material to collect oil, place in a covered identified container for disposal. Keep material out of sewers and water courses.

WASTE DISPOSAL : For disposal, contract with licensed chemical disposal agency. Discharge treatment or disposal may be subject to federal, state or local regulations. Empty containers may contain hazardous residue, dispose of properly.

STORAGE REQUIREMENTS : Store in a cool well ventilated area. Keep away from heat, strong oxidizers and ignition sources. Keep containers closed when not in use.

SECTION VIII : First Aid Measures

EYES : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If any signs of irritation or chemical burn, get prompt medical attention.

SKIN : Wash the skin with soap and water. If the material penetrates the protective clothing, remove the clothing and flush the skin with soap and water. Remove severely contaminated clothing and launder before reuse.

INHALATION : Move victim to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or CPR. Immediately obtain medical attention.

INGESTION : No specific information available. If swallowed, give water to drink and immediately telephone for medical advise. Do not induce vomiting unless directed by medical personnel. If vomiting occurs, have victim lean forward to reduce the risk of aspiration. If medical advice can not be obtained, then take the person and the product to the nearest medical emergency treatment center or hospital.

SECTION IX : Preparation Date of Material Safety Data Sheet

Prepared By (Marden-Wild of Canada Ltd.)	P. Butler
Phone Number	(902) 667-2424
Dated Prepared	February 21, 1997
Supersedes MSDS Dated	

DISCLAIMER of LIABILITY

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MATERIAL SAFETY DATA SHEET

Marden-Wild of Canada Ltd.
3 McCully Street, Amherst, N.S., Canada, B4H 4H9
(781) 245-1124 or (902) 667-2424

SECTION I - Material Identification and Use

Trade Name ..... **Mardol 50-T**
Product Use ..... An blend of synthetic waxes and oils used in leather manufacturer.

SECTION II - Hazardous Ingredients

Hazardous Ingredients	%	CAS #
Distillates (petroleum), hydrotreated light naphthenic	10 - 20	64742-53-6
Distillates (petroleum), hydrotreated heavy naphthenic		64742-52-5
Components are listed on TSCA Inventory		

TWA/TLV - 2 mg/m^3 for wax fumes, mist in air, recommended by ACGIH. (Note stated TLV for wax portion of product) 5 mg/m^3 for oil mist (aerosol) for an 8 hour workday (OSHA Regulation 29 CFR 1910.1200 and ACGIH. ACGIH states that the air is to be sampled by a method that does not collect vapour and it lists a 10 mg/m^3 STEL (Note stated TLV for petroleum portion of product)

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

Health - 1	Fire - 1	Reactivity - 0

SECTION III - Physical Data

Appearance (@ 68 °F)	light yellow wax	Evaporation Rate	Not available
Odour	slight petroleum odour	Boiling Point (° F)	Not available
Specific Gravity	0.78 - 0.84	Melting Point (° F)	110 ° F
Vapour Pressure (mmHg)	Not available	pH	Not available
Vapour Density (Air = 1)	Not available	Solubility in Water	insoluble

SECTION IV - Fire & Explosion Hazard Data

Flash Point (Method) - > 320 ° F, PMCC		Auto-Ignition Temp - n/a
Explosion Limits in Air (% by vol.)	Upper Limit - Not Available	Lower Limit - Not Available
Extinguishing Media	Foam, carbon dioxide, dry chemical	

SPECIAL FIRE FIGHTING PROCEDURES - Fire-fighters should be equipped with self-contained breathing apparatus. Use water to keep fire-exposed containers cool. Do not spray water directly into fire as this may cause dispersion of the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS - None

SECTION V : Reactivity Data

Chemical Stability	Stable	Incompatible Materials	Oxidizing Agents
Hazardous Polymerization	Will Not Occur	Conditions to Avoid	Extreme Heat
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and toxic fumes upon incomplete combustion.		

SECTION VI : Health Hazard Data

SKIN CONTACT : Contact may cause skin irritation, long term contact may cause dermatitis. Molten material will cause burns on contact with skin.

EYES : Contact with molten material will cause burns. Fumes may be slightly irritating.

INHALATION : This material may be a respiratory tract irritant. Prolonged exposure to this material at elevated temperatures may cause respiratory tract irritation.

INGESTION : No specific information available.

Chronic Overexposure Effects	No information available	Carcinogen.	No

Pre-existing medical conditions which may be aggravated by exposure : skin contact may aggravate an existing dermatitis.

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapours, mists or fumes should be minimized.

SECTION VII : Preventative Measures

RESPIRATORY PROTECTION	Required above cited TLV or when mists/fumes are formed. Use only NIOSH/OSHA approved respirators for dust/mist/organic vapours.
EYES	Safety glasses / goggles or face shield
PROTECTIVE GLOVES	Neoprene or rubber
OTHER PROTECTIONS	Safety shower and eye wash

SPECIFIC ENGINEERING CONTROLS : Local exhaust recommended. Mechanical ventilation recommended to maintain vapours below cited TLV, or if mists and fumes are produced.

LEAKS & SPILL PROCEDURE : Stop spill if safe to do so. Wear appropriate protective equipment. Provide ventilation and remove any sources of ignition. Use absorbent material to collect oil/wax, place in a covered identified container for disposal. Keep material out of sewers and water courses.

WASTE DISPOSAL : For disposal, contract with licensed chemical disposal agency. Discharge treatment or disposal may be subject to federal, state or local regulations. Empty containers may contain hazardous residue, dispose of properly.

STORAGE REQUIREMENTS : Store in a cool well ventilated area. Keep away from heat, strong oxidizers and ignition sources. Keep containers closed when not in use.

SECTION VIII - First Aid Measures

EYES : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If any signs of irritation or burns, get prompt medical attention.

SKIN : Wash the skin with soap and water. If the material penetrates the protective clothing, remove the clothing and flush the skin with soap and water. Remove severely contaminated clothing and launder before reuse.

INHALATION : Move victim to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or CPR. Immediately obtain medical attention.

INGESTION : If swallowed, give water to drink and immediately telephone for medical advise. Do Not Induce Vomiting unless directed by medical personnel. If medical advice can not be obtained, then take the person and the product to the nearest medical emergency treatment center or hospital.

SECTION IX - Preparation Date of Material Safety Data Sheet

Prepared By (Marden-Wild of Canada Ltd.)	P. Butler
Phone Number	(902) 667-2424
Dated Prepared	June 2000
Supersedes MSDS Dated	

DISCLAIMER of LIABILITY

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MATERIAL SAFETY DATA SHEET

Marden-Wild of Canada Ltd.
3 McCully Street, P.O. Box 518, Amherst, N.S., Canada, B4H 4A1
(617) 245-1124 or (902) 667-2424

SECTION I : Material Identification and Use

Trade Name ..... Mardol 1563
Product Use ..... A stuffing wax used in leather manufacturer.

SECTION II : Hazardous Ingredients

Hazardous Ingredients	%	CAS #
Hydrotreated heavy naphtha, petroleum (COMBUSTIBLE by OSHA Regulations)	5-10	64742-48-9

TWA/TLV - Not established for entire product.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

Health - 0	Fire - 1	Reactivity - 0

SECTION III : Physical Data

Appearance (@ 68 °F)	brittle yellowish wax	Evaporation Rate	Not available
Odour	slight	Boiling Point (° F)	Not available
Specific Gravity	0.86 - 0.89	Melting Point (° F)	Not available
Vapour Pressure (mmHg)	Not available	pH	Not available
Vapour Density (Air = 1)	Not available	Solubility in Water	insoluble

SECTION IV : Fire & Explosion Hazard Data

Flash Point (Method) - > 147 °F (TCC) (see note # 1)		Auto-Ignition Temp - Not available
Explosion Limits in Air (% by vol.)	Upper Limit - Not available	Lower Limit - Not available
Extinguishing Media	Foam, carbon dioxide, dry chemical	

Note # 1 - The stated flash point is for the solvent portion. The other components have a flash point greater than 300 ° F. At elevated temperatures when the product is in the liquid form, the solvent portion will be volatile, note the flash point.

SPECIAL FIRE FIGHTING PROCEDURES - Fire-fighters should be equipped with self-contained breathing apparatus. Use water to keep fire-exposed containers cool. Do not spray water directly into fire as this may cause dispersion of the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Combustible liquid, can form combustible mixtures at temperatures at or above the flash point. Static discharge, material can accumulate static charges which can cause an incendiary electrical discharge. Empty containers retain product residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks, static electricity or other sources of ignition. This liquid is volatile and gives off invisible vapours. Either the liquid or the vapour may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode. Keep containers closed when not being used.

SECTION V : Reactivity Data

Chemical Stability	Stable	Incompatible Materials	Oxidizing Agents
Hazardous Polymerization	Will Not Occur	Conditions to Avoid	Extreme Heat
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and toxic fumes upon incomplete combustion.		

SECTION VI : Health Hazard Data

SKIN CONTACT : Molten material will cause burns upon contact with skin.

EYES : Fumes may cause slight irritation and redness to eyes. Molten material will cause burns on contact.

INHALATION : Fumes may cause mild (upper) respiratory tract irritation.

INGESTION : No specific information available.

Chronic Overexposure Effects	No information available	Carcinogen.	No

Pre-existing medical conditions which may be aggravated by exposure : skin contact may aggravate an existing dermatitis.

SECTION VII : Preventative Measures

RESPIRATORY PROTECTION	Required above cited TLV or when mists/fumes are formed. Use only NIOSH/OSHA approved respirators for dust/mist/organic vapours.
EYES	Safety glasses / goggles or face shield
PROTECTIVE GLOVES	Neoprene or rubber
OTHER PROTECTIONS	Safety shower and eye wash

SPECIFIC ENGINEERING CONTROLS : Local exhaust recommended. Mechanical ventilation recommended to maintain vapours below cited TLV, or if mists and fumes are produced.

LEAKS & SPILL PROCEDURE : Stop spill if safe to do so. Wear appropriate protective equipment. Provide ventilation and remove any sources of ignition. Let material harden and scrape up, place in a covered identified container for disposal. Keep material out of sewers and water courses.

WASTE DISPOSAL : For disposal, contract with licensed chemical disposal agency. Discharge treatment or disposal may be subject to federal, state or local regulations. Empty containers may contain hazardous residue, dispose of properly.

STORAGE REQUIREMENTS : Store in a cool well ventilated area. Keep away from heat, strong oxidizers and ignition sources. Keep containers closed when not in use.

SECTION VIII : First Aid Measures

EYES : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If any signs of irritation or chemical burn, get prompt medical attention.

SKIN : Wash the skin with soap and water. If the material penetrates the protective clothing, remove the clothing and flush the skin with soap and water. Remove severely contaminated clothing and launder before reuse. If burned by hot material, cool material adhering to skin as quickly as possible and see a physician for treatment of burn.

INHALATION : Move victim to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or CPR. Immediately obtain medical attention.

INGESTION : If swallowed, give water to drink and immediately telephone for medical advise. Do not induce vomiting unless directed by medical personnel. If vomiting occurs, have victim lean forward to reduce the risk of aspiration. If medical advice can not be obtained, then take the person and the product to the nearest medical emergency treatment center or hospital.

SECTION IX : Preparation Date of Material Safety Data Sheet

Prepared By (Marden-Wild of Canada Ltd.)	P. Butler
Phone Number	(902) 667-2424
Dated Prepared	February 20, 1996
Supersedes MSDS Dated	June 7, 1993

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MATERIAL SAFETY DATA SHEET

Broadmoor Products Incorporated
2547 Three Mile Rd NW #B
Grand Rapids MI 49544

Phone: (616) 285-6440
FAX : (616) 285-5503

Product.....> **MC-855, 857**

Section 1: Material Identification

Chemical Family.....	aqueous soap proprietary formulation.
DOT Ship Name.....	Compound, Cleaning Liquid
Hazard Class.....	Not Regulated
Date Prepared.....	May 17, 2000

Section 2: Ingredient and Hazards

CAUTION: eye or skin irritant

Hazardous Ingredient	Percent	Limits(TLV)
dodecylbenzene sulfonic acid sodium salt CAS(27176-87-0)	< 35	not established

The balance contains blended proprietary surfactants considered not hazardous ingredients according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section: 3 Physical Data

Boiling Point.....	>212 deg F
Specific Gravity.....	1.012 - 1.018
Vapor Pressure.....	<17 mm Hg @ 68 F
Vapor Density.....	>1.2 (AIR=1)
Evaporation Rate.....	1.0 (WATER=1)
Ionic charge.....	anionic
Measured pH.....	9.0 - 11.0
Water Solubility.....	complete
Appearance.....	clear amber liquid
Odor.....	mild

Abbreviations: n/a = not applicable n/d = not determined

WWW_104(e)_016365

MATERIAL SAFETY DATA SHEET

Product.....> **MC-855, 857**

Section: 4	Fire and Explosion Data
Flash Point,F,PMCC....	not flammable
Flammable Limits.....	not established
Auto Ignition Temp....	not established
Extinguishing Media...	chemical foam, carbon dioxide, dry
Special Procedures....	none
Unusual Fire Hazards..	use SCBA apparatus.

Section 5:	Health Hazard Data
Threshold Limit Value..	none established
Carcinogen.....	not considered to be a carcinogen by the National Toxicology Program.

* ROUTES OF EXPOSURE *	DERMAL
Eye Contact.....	may cause mild transient irritation, remove promptly by flushing with water.
Skin Contact.....	may cause irritation
Inhalation.....	not a hazard
Oral.....	large quantities will cause nausea, vomiting or diarrhea if swallowed.

* EMERGENCY FIRST AID *	
Eyes.....	flush with water 15 minutes
Skin.....	flush with soap and water, remove contaminated clothing.
Inhalation.....	move to fresh air
Ingestion.....	drink large quantities of water or milk. Induce vomiting if conscious. Get immediate medical attention.

Abbreviations: n/a = not applicable n/d = not determined

WWW_104(e)_016366

MATERIAL SAFETY DATA SHEET

Product.....> **MC-855, 857**

Section 6: Reactivity Data

Stability..... stable
Incompatibility..... strong oxidizing agents or acids.
Decomposition Products.. none
Hazardous Polymerization will not occur

Section: 7 Environmental Protection Procedures

Spill..... absorb onto sand or other absorbent material. Shovel into sealable containers. Residue is very slippery.

Waste Disposal..... dispose of liquid by solidification following local, state or federal regulations. Do not allow drainage to sewer or natural waterways.

Reportable Quantities... None

TSCA Listed..... all components listed are on the Toxic Substances Chemical Act inventory list.

Section: 8 Control Measures/Special Protection

Respiratory Protection.. provide good ventilation
Ventilation Recommended. provide local exhaust
Protective Gloves..... chemical resistant
Eye Protection..... wear safety glasses when handling concentrate.
Other Equipment..... safety/eye wash nearby
Work/Hygienic Practices: rinse & wash thoroughly after handling with clean water.
Storage..... store indoors.

Abbreviations: n/a = not applicable n/d = not determined

WWW_104(e)_016367

Product.....> **MC-855, 857**

Section: 9 ADDITIONAL INFORMATION

HMIS Rating Code: HMIS			
		0 =	minimal
		1 =	slight
Health.....	1	2 =	moderate
Flammability.....	0	3 =	serious
Reactivity.....	0	4 =	severe
Personal Protection...	A	A =	chemical glasses

The information provided relates to the specific material designated and may not be valid for such material used in combination with other materials outside the scope of intended usage. No representation, warranty or guarantee is made and it remains the user's responsibility to confirm by other investigation as to safe material application. We do not accept liability for loss or damage that may occur from the misuse of this information.

Ventron

00521

MATERIAL SAFETY DATA SHEET

Power House

PRODUCT NAME:	MERCURY CAS # 7439-97-6
CHEMICAL NATURE:	HEAVY METAL
% ACTIVITY:	99.999%

I. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	356.9°C	FREEZE POINT	-38.87°C
SPECIFIC GRAVITY	13.546	VAPOR PRESSURE AT ~~20°C.~~ 126°	1 mm
VAPOR DENSITY	7 AIR	SOLUBILITY IN H_2O	INSOLUBLE
PER CENT VOLATILES BY WEIGHT	100%	IONIC NATURE	NO
APPEARANCE AND ODOR	SILVERY LIQUID METAL		

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)
MERCURY	99.999%	.05 mg/m^3

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)		AUTOIGNITION TEMPERATURE			
FLAMMABLE LIMITS IN AIR, % by volume		LOWER		UPPER	
EXTINGUISHING MEDIA					
SPECIAL FIRE FIGHTING PROCEDURES	WHEN HEATED, METALLIC MERCURY WILL VAPORIZE. AVOID INHALATION OF MERCURY VAPOR OR MIST.				
UNUSUAL FIRE AND EXPLOSION HAZARDS					

6/79 ✓

Alfa Division, Ventron Corporation, 152 Andover St., Danvers, MA 01923
(617) 777-1970 / TELEX 94 0378 (ALFA DARS)

HE BURDEN OF SAFE USE OF OUR MATERIALS MUST REST ENTIRELY WITH THE USER. WE CANNOT SSUME RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ANY INFORMATION SUPPLIED Y US CONCERNING THE HAZARDS OR RECOMMENDED USE OF THE CHEMICALS. #00521

IV. HEALTH HAZARD DATA

RESHOLD LIMIT VALUE	TLV= .05 mg/m^3, ORAL LD_{50} (HUMAN)= 1429 mg/kg
ECTS OF OVEREXPOSURE	TOXIC TO CENTRAL NERVOUS SYSTEM AND GI TRACT.
ERGENCY AND FIRST PROCEDURES	SEEK MEDICAL ATTENTION

V. REACTIVITY DATA

ABILITY			
UNSTABLE	STABLE	CONDITIONS TO AVOID	
	X		

COMPATIBILITY (terials to avoid)	ACETYLENE, NH_3, Cl_2, ClO_2, CH_3N_3, Na_2C_2
AZARDOUS ECOMPOSITION PRODUCTS	NO

ZARDOUS POLYMERIZATION			
May Occur	Will not Occur	CONDITIONS TO AVOID	
	X		

VI. SPILL OR LEAK PROCEDURES

PS TO BE TAKEN ATERIAL IS RELEASED SPILLED	COLLECT MAJOR DROPLETS USING SUCTION ASSISTED PEPETTOR, COVER RESIDUE WITH SULFUR FLOWERS OR ACTIVATED CHARCOAL.
STE DISPOSAL METHOD	PURIFY BY DISTILLATION AND REUSE

VII. SPECIAL PROTECTION INFORMATION

PIRATORY PROTECTION (specify type)		CARTRIDGE MASK FOR MERCURY, NIOSH-APPROVED		
NTILATION	LOCAL EXHAUST	X	SPECIAL	
	MECHANICAL		OTHER	
OTECTIVE GLOVES		RUBBER	EYE PROTECTION	GLASSES
HER PROTECTIVE UIPMENT		EYEWASH, SAFETY SHOWER		

VIII. SPECIAL PRECAUTIONS

RECAUTIONARY LABELING	
ER HANDLING AND RAGE CONDITIONS	

11-000103A

Newer MSDS - different supplier

MSDS Number: M1599 Effective Date: 12/08/96

HMIS
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pp E

MSDS MATERIAL SAFETY DATA SHEET

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

CHEMTREC: 800-424-9300 (USA)
202-483-7616
(Outside USA & CANADA)
CANUTEC: 613-996-6666

Emergency Telephone Number: 908-859-2151

NOTE: Use CHEMTREC and CANUTEC phone numbers only in the event of a chemical emergency.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

MALLINCKRODT J.T. BAKER

MERCURY

1. Product Identification

Synonyms: Quicksilver; hydrargyrum; Liquid Silver
CAS No: 7439-97-6
Molecular Weight: 200.59
Chemical Formula: Hg
Product Codes: J.T. Baker:
2564, 2567, 2569, 2572
Mallinckrodt:
1278, 1280, 1288

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Mercury	7439-97-6	90 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! CORROSIVE. CAUSES BURNS TO SKIN, EYES, AND RESPIRATORY TRACT. MAY BE FATAL IF SWALLOWED OR INHALED. HARMFUL IF ABSORBED THROUGH SKIN. AFFECTS THE KIDNEYS AND CENTRAL NERVOUS SYSTEM. MAY CAUSE ALLERGIC SKIN REACTION.

J.T. Baker SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 4 - Extreme (Poison)
Flammability Rating: 0 - None
Reactivity Rating: 1 - Slight
Contact Rating: 3 - Severe (Life)
Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES
Storage Color Code: Blue (Health)

Potential Health Effects

Inhalation:
Mercury vapor is highly toxic via this route. Causes severe respiratory tract damage. Symptoms include sore throat, coughing, pain, tightness in chest, breathing difficulties, shortness of breath, headache, muscle weakness, anorexia, gastrointestinal disturbance, ringing in the ear, liver changes, fever, bronchitis and pneumonitis. Can be absorbed through inhalation with symptoms similar to ingestion.

Ingestion:
May cause burning of the mouth and pharynx, abdominal pain, vomiting, corrosive ulceration, bloody diarrhea. May be followed by a rapid and weak pulse, shallow breathing, paleness, exhaustion, tremors and collapse. Delayed death may occur from renal failure. Gastrointenstinal uptake of mercury is less than 5% but its ability to penetrate tissues presents some hazard. Initial symptoms may be thirst, possible abdominal discomfort.

Skin Contact:
Causes irritaton and burns to skin. Symptoms include redness and pain. May cause skin allergy and sensitization. Can be absorbed through the skin with symptoms to parallel ingestion.

Eye Contact:
Causes irritation and burns to eyes. Symptoms include redness, pain, blurred vision; may cause serious and permanent eye damage.

Chronic Exposure:
Chronic exposure through any route can produce central nervous system damage. May cause muscle tremors, personality and behavior changes, memory

loss, metallic taste, loosening of the teeth, digestive disorders, skin rashes, brain damage and kidney damage. Can cause skin allergies and accumulate in the body. Repeated skin contact can cause the skin to turn gray in color. A suspected reproductive hazard; may damage the developing fetus and decrease fertility in males and females.

Aggravation of Pre-existing Conditions:
Persons with nervous disorders, or impaired kidney or respiratory function, or a history of allergies or a known sensitization to mercury may be more susceptible to the effects of the substance.

4. First Aid Measures

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:
Not considered to be a fire hazard.

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire. Do not allow water runoff to enter sewers or waterways.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Undergoes hazardous reactions in the presence of heat and sparks or ignition. Smoke may contain toxic mercury or mercuric oxide. Smoke may contain toxic mercury or mercuric oxide.

6. Accidental Release Measures

Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from vapor.

Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate misting. Sprinkle area with sulfur or calcium polysulfide to suppress mercury. Do not flush to sewer. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. J. T. Baker CINNASORB(tm) and RESISORB(tm) are recommended for spills of this product.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Do not use or store on porous work surfaces (wood, unsealed concrete, etc.). Follow strict hygiene practices. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
- OSHA Acceptable Ceiling Concentration:
mercury and mercury compounds: 0.1 mg/m3 (TWA), skin
- ACGIH Threshold Limit Value (TLV):
inorganic and metallic mercury, as Hg: 0.025 mg/m3 (TWA) skin, A4 Not classifiable as a human carcinogen.
- ACGIH Biological Exposure Indices:
total inorganic mercury in urine (preshift): 35 ug/g creatinine;
total inorganic mercury in blood (end of shift): 15 ug/l.

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne
Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded, a half-face respirator with a mercury vapor or chlorine gas cartridge may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with a mercury vapor or chlorine gas cartridge may be worn up to 50 times the exposure limit, or the maximum use concentraiton specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:
Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

==========

9. Physical and Chemical Properties

Appearance:
Silver-white, heavy, mobile, liquid metal.

Boiling Point:
356.7C (675F)

Odor:
Odorless.

Melting Point:
-38.87C (-38F)

Solubility:
Insoluble in water.

Vapor Density (Air=1):
7.0

Density:
13.55

Vapor Pressure (mm Hg):
0.0018 @ 25C (77F)

pH:
No information found.

Evaporation Rate (BuAc=1):
4

% Volatiles by volume @ 21C (70F):
100

==========

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
At high temperatures, vaporizes to form extremely toxic fumes.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
Acetylenes, ammonia, ethylene oxide, chlorine dioxide, azides, metal oxides, methyl silane, lithium, rubidium, oxygen, strong oxidants, metal carbonyls.

Conditions to Avoid:
Heat, flames, ignition sources, metal surfaces and incompatibles.

==========

11. Toxicological Information

Toxicological Data:
Investigated as a tumorigen, mutagen, reproductive effector.

Reproductive Toxicity:
All forms of mercury can cross the placenta to the fetus, but most of what is known has been learned from experimental animals. See Chronic Health Hazards.

Carcinogenicity:
EPA / IRIS classification: Group D1 - Not classifiable as a human carcinogen.

-------- Cancer Lists ----------

Ingredient	NTP Carcinogen Known	NTP Carcinogen Anticipated	IARC Category
Mercury (7439-97-6)	No	No	3

==========

12. Ecological Information

Environmental Fate:
This material has an experimentally-determined bioconcentration factor (BCF) of greater than 100. This material is expected to significantly bioaccumulate.

Environmental Toxicity:
This material is expected to be toxic to aquatic life. The LC50/96-hour values for fish are less than 1 mg/l.

==========

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Dispose of container and unused contents in accordance with federal, state and local requirements.

==========

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: RQ, MERCURY
Hazard Class: 8
UN/NA: UN2809 Packing Group: III
Information reported for product/size: 2.5KG

International (Water, I.M.O.)

Proper Shipping Name: MERCURY
Hazard Class: 8
UN/NA: UN2809 Packing Group: III
Information reported for product/size: 2.5KG

International (Air, I.C.A.O.)

Proper Shipping Name: MERCURY
Hazard Class: 8
UN/NA: UN2809 Packing Group: III
Information reported for product/size: 2.5KG

==========

15. Regulatory Information

-------- Chemical Inventory Status - Part 1 ----------

Ingredient	TSCA	EC	Japan	Australia
Mercury (7439-97-6)	Yes	Yes	No	Yes

-------- Chemical Inventory Status - Part 2 ----------

Ingredient	Korea	Canada DSL	Canada NDSL	Phil.
Mercury (7439-97-6)	Yes	Yes	No	Yes

------- Federal, State & International Regulations - Part 1 ----------

Ingredient	SARA 302 RQ	SARA 302 TPQ	SARA 313 List	SARA 313 Chemical Catg.
Mercury (7439-97-6)	No	No	Yes	No

-------- Federal, State & International Regulations - Part 2 ----------

Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)	
Mercury (7439-97-6)	1	U151	No	

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: No (Pure / Liquid)

Prop 65: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

Australian Hazchem Code: 2Z
Poison Schedule: S7

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

==========

16. Other Information

NFPA Ratings:
Health: 3 Flammability: 0 Reactivity: 0

Label Hazard Warning:
DANGER! CORROSIVE. CAUSES BURNS TO SKIN, EYES, AND RESPIRATORY TRACT. MAY BE FATAL IF SWALLOWED OR INHALED. HARMFUL IF ABSORBED THROUGH SKIN. AFFECTS THE KIDNEYS AND CENTRAL NERVOUS SYSTEM. MAY CAUSE ALLERGIC SKIN REACTION.

Label Precautions:
Do not get in eyes, on skin, or on clothing.
Do not breathe vapor.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.

Label First Aid:
If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases get medical attention immediately.

Product Use:
Laboratory Reagent.

Revision Information:
New 16 section MSDS format, all sections have been revised.

Disclaimer:
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Prepared by: Strategic Services Division
Phone Number: (314) 539-1600 (U.S.A.)
M1599

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	E

Section I

MANUFACTURER'S NAME The Mearl Corporation

DATE OF PREP April 11, 1985

STREET ADDRESS 1057 Lower South Street

CITY, STATE, AND ZIP CODE Peekskill, NY 10566

EMERGENCY TELEPHONE NO. 914-737-2554

INFORMATION TELEPHONE NO. 212-573-8500

MANUFACTURERS CODE IDENTIFICATION MA/NA: 011105850

PRODUCT CLASS Pearl Pigment; Powder, Titanium Dioxide Coated Mica and Iron Oxide

TRADE NAME Mearlin Nu-Antique Silver

Section II—HAZARDOUS INGREDIENTS

INGREDIENT (CAS No.)	Approx. PERCENT	ACGIH-TWA OCCUPATIONAL EXPOSURE LIMITS mg/m3	VAPOR PRESSURE	TOXICITY DATA
Mica (12001-26-2)	67	3 Respirable Dust	N.A.	N.A.
Titanium Dioxide (13463-67-7)	18	5 Respirable Dust*	N.A.	N.A.

*As nuisance particulates

Section III—PHYSICAL DATA

BOILING RANGE N.A.

VAPOR DENSITY N.A. ☐ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☐ SLOWER THAN ETHER N.A.

PERCENT VOLATILE BY ~~VOLUME~~ wt. max. 0.5%

~~WEIGHT PER GALLON~~ Specific Gravity 3.1

Section IV—FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION OSHA N.A. DOT Not Regulated

FLASH POINT N.A.

LEL N.A.

EXTINGUISHING MEDIA N.A.

☐ FOAM ☐ "ALCOHOL" FOAM ☐ CO_2 ☐ DRY CHEMICAL ☐ WATER FOG ☐ OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS N.A.

Section V—HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE Persistent cough, difficulty in breathing.

EMERGENCY AND FIRST AID PROCEDURES Consult Physician.

Section VI—REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID None Known.

INCOMPATABILITY (Materials to avoid) N.A.

HAZARDOUS DECOMPOSITION PRODUCTS N.A.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

Section VII—SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED General Cleaning.

WASTE DISPOSAL METHOD Follow applicable local, state and federal regulations.

Section VIII—SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION Dust mask in heavy dusting conditions.

VENTILATION Provide general dilution or local exhaust ventilation.

PROTECTIVE GLOVES N.A. OTHER PROTECTIVE EQUIPMENT Dust Mask

EYE PROTECTION For dusting

Section IX—SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Avoid heavy dusting; store in dry area with drums tightly sealed.

OTHER PRECAUTIONS N.A.

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO 02-K-56 LIQUID
296741 VERSION: 01 REVISED DATE: 08/01/2000

Clariant

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
TANNING DIV
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I. S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO 02-K-56 LIQUID
PRODUCT CODE: 296741
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS DISPERSION OF POLYACRYLIC ACID DERIVATIVE COPOLYMER
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
ETHOXYLATED NONYL PHENOL	9016-45-9	2.5-10	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:
SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:
ETHOXYLATED NONYL PHENOL: SOME ETHOXYLATED COMPOUNDS HAVE BEEN KNOWN TO CAUSE SKIN AND EYE IRRITATION. ANY KNOWN SPECIFIC EFFECTS ARE LISTED BELOW.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:
NONE: X
OSHA:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

DECOMPOSITION PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

CHEMICAL RESISTANT GLOVES (BUTYL RUBBER, NITRILE RUBBER, POLYVINYL ALCOHOL) HOWEVER, PLEASE NOTE THAT PVA DEGRADES IN WATER.

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITISH LIQUID, MILD AMMONIA-LIKE ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 9 - 10
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.01 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): NOT AVAILABLE
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE OF THE PREPARATIONS DIRECTIVE (88/379/EC).

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:

SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

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SECTION 15 - REGULATORY INFORMATION (CONT.)

TSCA: ALL COMPONENTS OF THIS PRODUCT ARE NOT REGISTERED UNDER THE REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): NOT AVAILABLE

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

CLARIANT CORPORATION
4000 MONROE ROAD
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SECTION 16 - OTHER INFORMATION (CONT.)

OTHER PRECAUTIONS:

WARNING: THIS PRODUCT IS TO BE USED FOR PURPOSES OF RESEARCH AND DEVELOPMENT ONLY. IT MUST BE USED UNDER THE DIRECT SUPERVISION OF A TECHNICALLY QUALIFIED INDIVIDUAL. ANY OTHER USE WILL SUBJECT THE USER TO PENALTIES UNDER THE TOXIC SUBSTANCES CONTROL ACT AND THE REGULATIONS ISSUED THEREUNDER.

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

WARNING!
FOR RESEARCH AND DEVELOPMENT USE ONLY! OTHER USE WILL SUBJECT USER TO PENALTIES UNDER THE TOXIC SUBSTANCES CONTROL ACT.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

DO NOT USE FOR PURPOSES OTHER THAN RESEARCH AND DEVELOPMENT.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

CLARIANT CORPORATION
4000 MONROE ROAD
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MELIO 02-K-56 LIQUID
296741 VERSION: 01 REVISED DATE: 08/01/2000

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Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

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NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
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MELIO 03-K-58 LIQUID
296743 VERSION: 01 REVISED DATE: 11/30/1999

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ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1 *
FLAMMABILITY	2
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO 03-K-58 LIQUID
PRODUCT CODE: 296743
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: POLYURETHANE BUTADIENE-ACRYLONITRILE COPOLYMER IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
N-METHYLPYRROLIDONE	872-50-4	<2.5	5 PPM/8 HR-SKIN
TRIETHYLAMINE	121-44-8	<0.8	25 PPM TWA
LD50(ORAL)(RAT) - 460 MG/KG			OSHA
LC50(INHALATION)(MAMMAL) - 6000 MG/M3			1 PPM TWA
			SKIN ACGIH
BUTYL CELLOSOLVE (2-BUTOXY ETHANOL)	111-76-2	1-2.5	ACGIH TWA SKIN
LD50(ORAL)(RAT) - [470 - 1480 MG/KG]			20 PPM
LC50(INHALATION)(RAT)(4HR) - 450 PPM			97 MG/M3
			OSHA TWA SKIN
			50 PPM
			240 MG/M3
TRIBUTOXYETHYL PHOSPHATE	78-51-3	< 0.5	NOT ESTABLISHED
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	1-3	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION: X
EYE CONTACT:
INHALATION: X
INGESTION: X

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

EFFECTS OF EXPOSURE:

N-METHYL PYRROLIDONE: CAN CAUSE MODERATE EYE IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. READILY ABSORBED THROUGH THE SKIN. PROLONGED EXPOSURE CAN CAUSE STOMACH PAINS, VOMITING AND DIARRHEA. ANIMAL STUDIES HAVE SHOWN FETOTOXIC AND TERATOGENIC EFFECTS. THIS MATERIAL OR ITS EMISSIONS MAY AFFECT PREGNANCY AND/OR FETAL DEVELOPMENT. MODERATE SKIN IRRITANT. THIS MATERIAL MAY BE A SLIGHT HEALTH HAZARD IF INGESTED IN LARGE QUANTITIES. MATERIAL WAS NOT CARCINOGENIC IN RATS EXPOSED TO 0.4 MG/L VAPORS FOR 2 YEARS. NON-MUTAGENIC AS TESTED IN THE AMES TEST.

TRIETHYLAMINE: MAY CAUSE SEVERE IRRITATION TO THE SKIN. INHALATION OF HIGH CONCENTRATIONS OF VAPOR WILL PRODUCE IRRITATION OF THE RESPIRATORY TRACT AND LUNGS. CONTACT WITH EYES MAY RESULT IN SEVERE IRRITATION. EXPOSURE TO CONCENTRATED VAPORS MAY RESULT IN CORNEAL EDEMA. EXPERIMENTS WITH LABORATORY ANIMALS HAVE SHOWN LIVER AND KIDNEY DAMAGE.

BUTYL CELLOSOLVE: TCLO (HUMAN)(8 HR) - 195 PPM. ORAL LD50 (RAT) -[470 - 1480 MG/KG]. TERATOLOGY STUDIES CONDUCTED BY DOW CHEMICAL SHOW THAT RATS EXPOSED AT 300 PPM SHOWED EFFECTS OF MATERNAL AND EMBRYO LETHALITY; AT 200 PPM SHOWED MATERNAL TOXICITY, EMBRYO TOXICITY AND FETOTOXICITY; AT 50 PPM SHOWED NO OBSERVED EFFECT. A MILD EYE AND MUCOUS MEMBRANE IRRITANT AND HEMOLYTIC AGENT. ACUTE EXPOSURE HAS PRODUCED EYE, NOSE AND THROAT IRRITATION. EYE CONTACT WITH THE LIQUID PRODUCES MARKED PAIN AND IRRITATION. SYSTEMIC EFFECTS OBSERVED IN ANIMALS INCLUDE HEMOLYSIS, LIVER AND KIDNEY DAMAGE AND PULMONARY HEMORRHAGE. THE THRESHOLD LIMIT WAS ADOPTED TO PREVENT SYSTEMIC EFFECTS. MODERATELY TOXIC BY INGESTION. MAY CAUSE HEADACHE, DIZZINESS, INCOORDINATION, NAUSEA, VOMITING, DIARRHEA AND GENERAL WEAKNESS. INGESTION MAY CAUSE RED BLOOD CELL HEMOLYSIS AND POSSIBLE LIVER AND KIDNEY INJURY. PENETRATES THE SKIN READILY. FREQUENT OR WIDESPREAD CONTACT MAY RESULT IN THE ABSORPTION OF POTENTIALLY HARMFUL AMOUNTS. SIGN AND SYMPTOMS OF TOXICITY ARE SIMILAR TO THOSE OF INGESTION. HIGH CONCENTRATIONS ARE IRRITATING TO THE EYES AND RESPIRATORY TRACT. INHALATION OF VAPORS OR MISTS MAY CAUSE HEADACHE, DIZZINESS, NAUSEA, VOMITING AND MALAISE.
IN ANIMAL STUDIES, SEVERAL TYPES OF TUMORS WERE REPORTED AFTER A 2 YEAR CHRONIC INHALATION TEST.
BRIEF SKIN CONTACT WITH UNDILUTED MATERIAL MAY CAUSE SLIGHT REDDENING. MORE PROLONGED AND WIDESPREAD CONTACT, AS WITH CHEMICAL SATURATED CLOTHING, MAY CAUSE MODERATE REDDENING, SWELLING AND POSSIBLE DAMAGE TO THE SKIN. CAUSES MODERATE IRRITATION AND POSSIBLE CORNEAL INJURY. BECAUSE OF IRRITATION AND DEFATTING PROPERTIES, MAY EXACERBATE AN EXISTING DERMATITIS. RESULTS OF MUTAGENICITY TESTS IN ANIMALS HAVE BEEN NEGATIVE. RESULTS OF IN-VITRO MUTAGENICITY TESTS HAVE BEEN INCONCLUSIVE.

TRIBUTOXYETHYL PHOSPHATE: A POISON BY INTRAVENOUS ROUTE. MODERATELY TOXIC

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

BY INGESTION. MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION. VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES, AND UPPER RESPIRATORY TRACT. CAUSES SKIN IRRITATION.

GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL: GLYCOL ETHERS INCLUDE MONO- AND DI- ETHERS OF ETHYLENE GLYCOL, DIETHYLENE GLYCOL, AND TRIETHYLENE GLYCOL WHICH ARE REGULATED AS A CHEMICAL CATEGORY UNDER SARA SECTION 313 REGULATIONS. THE HEALTH EFFECTS OF GLYCOL ETHERS VARY WITH THE PARTICULAR GLYCOL ETHER. THESE EFFECTS MAY INCLUDE IRRITATION TO THE SKIN, EYES, RESPIRATORY TRACT, AND MUCOUS MEMBRANES. THEY MAY INCLUDE EFFECTS ON THE REPRODUCTIVE SYSTEM, INCLUDING REDUCTION OF SPERM COUNT OR BIRTH DEFECTS.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

REMOVE SUBJECT TO FRESH AIR. SEEK MEDICAL AID IF LUNG IRRITATION PERSISTS OR IF BREATHING BECOMES DIFFICULT.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

FLASH POINT ('F): 152 (67'C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): NOT SELFIGNITING

HAZARDOUS COMBUSTION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON AND NITROGEN.

EXTINGUISHING MEDIA:
WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT. USE NIOSH APPROVED RESPIRATORS

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

WHEN SPRAYING WITHOUT ADEQUATE REMOVAL BY SUCTION.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
NONE KNOWN

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MILKY WHITE LIQUID, PRODUCT SPECIFIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 7.0 - 9.0
SOLUBILITY IN WATER: FULLY MISCIBLE
SPECIFIC GRAVITY: 1.02 TYPICAL
BOILING POINT ('F): 212 (100'C)
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 45-55% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
KINEMATIC: 10 - 20 S @68'F (20'C); DIN 53211/4

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

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SECTION 10 - STABILITY AND REACTIVITY (CONT.)

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

CLARIANT CORPORATION
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MELIO 03-K-58 LIQUID
296743 VERSION: 01 REVISED DATE: 11/30/1999

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: YES
RQ MET AT: NONE
UN/NA NUMBER : NA1993
PACKING GROUP: III
HAZARD CLASSIFICATION: COMBUSTIBLE LIQUID
SUBSIDIARY RISK 1: NONE
SUBSIDIARY RISK 2: NONE
POISON INHALATION: NO HAZARD ZONE: NONE
MARINE POLLUTANT: NO
DOT LABEL(S) REQUIRED: NONE
NORTH AMERICAN EMERGENCY RESPONSE GUIDE NO.: 128

SHIPPING NAME: COMBUSTIBLE LIQUID, N.O.S. (BUTYL CELLOSOLVE)

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: Y
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y
SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL

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SECTION 15 - REGULATORY INFORMATION (CONT.)

MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS TRIETHYLAMINE AT CONCENTRATION > 0.1% A CWA SECTION 311 HAZARDOUS CHEMICAL.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 45-55% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
TRIETHYLAMINE	121-44-8	<0.8	5000
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	1-3	NO RQ

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
KEEP AWAY FROM IGNITION SOURCES. PROTECT AGAINST ELECTROSTATIC CHARGES. PREVENT FORMATION OF AEROSOLS.

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS

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SECTION 16 - OTHER INFORMATION (CONT.)

ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
COMBUSTIBLE LIQUID AND VAPOR

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
REPEATED EXPOSURES MAY RESULT IN LIVER OR KIDNEY DAMAGE.

CAUTION!
A COMPONENT OF THIS PRODUCT HAS BEEN REPORTED TO BE FETOTOXIC AND TERATOGENIC BY DERMAL EXPOSURE.

CAUTION!
N-METHYLPYRROLIDONE CAN BE ABSORBED THROUGH THE SKIN.

LABEL PRECAUTIONS:

DO NOT BREATH VAPORS. USE WITH ADEQUATE VENTILATION. DO NOT GET IN EYES OR ON CLOTHING. WASH FROM SKIN AND EYES IMMEDIATELY. KEEP FROM HEAT AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE.

AVOID CONTACT WITH SKIN. WEAR PROPER PROTECTIVE EQUIPMENT.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

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For MSDS Info: (704) 331-7710
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SECTION 16 - OTHER INFORMATION (CONT.)

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

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MELIO EW-314 LIQUID
296096 VERSION: 01 REVISED DATE: 04/30/1996

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WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	2 *
FLAMMABILITY	2
REACTIVITY	0
PERSONAL PROTECTION	D

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO EW-314 LIQUID
PRODUCT CODE: 296096
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: NITROCELLULOSE-LACQUER DISPERSION IN WATER AND ORGANIC SOLVENTS
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
2-BUTOXYETHYL ACETATE	112-07-2	25-50	NOT ESTABLISHED
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	25-50	NOT ESTABLISHED
DIISOBUTYL KETONE	108-83-8	14-15	25 PPM OSHA
LD50(ORAL)(RAT) - 5750 MG/KG			ACGIH
METHYL ETHYL KETONE	78-93-3	2-3	TWA-200 PPM
LD50(ORAL)(RAT) - 2737 MG/KG			STEL-300 PPM
LC50(INHALATION)(MOUSE) - 28300 MG/M3			OSHA
CALCULATED 4HR LC50 PER CANADA WHMIS			200 PPM ACGIH

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION: X
EYE CONTACT: X
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

2-BUTOXYETHYL ACETATE: SKIN (RABBIT)(500 MG-OPEN)-MILD. LD50 (RAT)(ORAL)-2400 MG/KG. LD50 (RAT)(SKIN) - 1580 MG/KG. TOXICITY IS MODERATE VIA ORAL AND DERMAL ROUTES. A MILD SKIN IRRITANT. MAY CAUSE KIDNEY DAMAGE, NECROSIS, HEMORRHAGE, HEMOGLOBINURIA, AND DEATH. INHALATION OF VAPORS

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

MAY CAUSE SORE THROAT, COUGHING, AND INCLUDE NERVOUS SYSTEM EFFECTS SUCH AS HEADACHE, NAUSEA, DULLNESS, AND DIZZINESS. INGESTION MAY CAUSE SORE THROAT, ABDOMINAL PAIN AND VOMITING, KIDNEY DAMAGE, AND NERVOUS SYSTEM EFFECTS SUCH AS HEADACHE, DULLNESS, AND DIZZINESS.

GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL: GLYCOL ETHERS INCLUDE MONO- AND DI- ETHERS OF ETHYLENE GLYCOL, DIETHYLENE GLYCOL, AND TRIETHYLENE GLYCOL WHICH ARE REGULATED AS A CHEMICAL CATEGORY UNDER SARA SECTION 313 REGULATIONS. THE HEALTH EFFECTS OF GLYCOL ETHERS VARY WITH THE PARTICULAR GLYCOL ETHER. THESE EFFECTS MAY INCLUDE IRRITATION TO THE SKIN, EYES, RESPIRATORY TRACT, AND MUCOUS MEMBRANES. THEY MAY INCLUDE EFFECTS ON THE REPRODUCTIVE SYSTEM, INCLUDING REDUCTION OF SPERM COUNT OR BIRTH DEFECTS.

DIISOBUTYL KETONE: EYE (HUMAN)(25 PPM/15M)-MILD. SKIN (RABBIT)(10MG/24H)-MILD. TCLO (HUMAN)(INHALATION)(50 PPM) - IRRITANT. LD50 (RAT)(ORAL) - 5750 MG/KG. TOXICITY - MODERATE VIA ORAL AND INHALATION ROUTES, LOW VIA DERMAL ROUTE. MILD IRRITANT. NARCOTIC EFFECT IN HIGH CONCENTRATIONS.

METHYL ETHYL KETONE: EYE (HUMAN)(350 PPM) - MODERATE; SKIN (RABBIT) (500 MG/24H) - MODERATE; TCLO (HUMAN)(INHALATION-100 PPM/5M) - IRRITANT; TCLO (RAT)(INHALATION-1000 PPM/6-15DPREG) - TERATOGEN. TOXICITY IS MODERATE VIA ORAL ROUTE, LOW VIA DERMAL ROUTES. A STRONG IRRITANT VIA INHALATION. AFFECTS PERIPHERAL NERVOUS SYSTEM, AND CENTRAL NERVOUS SYSTEM. LISTED AS AN EXPERIMENTAL TERATOGEN.

MELIO EW-314 LIQUID: BASED ON TESTING OF A SIMILAR PRODUCT, THIS PRODUCT WOULD BE EXPECTED TO BE AN EYE AND SKIN IRRITANT AND TO HAVE AN LD50 (ORAL, RAT) > 2000 MG/KG.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE:
OSHA:
NTP:
IARC: X
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

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SECTION 04 - FIRST AID MEASURES (CONT.)

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): 125 PMCC
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): 840 F

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN, SULFUR, AND PHOSPHORUS.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

PREVENT RUN OFF TO SEWERS AND BODIES OF WATER FROM FIRE FIGHTING INVOLVING THIS PRODUCT AS PRODUCT CONTAINS CLEAN WATER ACT PRIORITY POLLUTANTS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

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SECTION 06 - ACCIDENTAL RELEASE MEASURES (CONT.)

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. PREVENT SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATORY PROTECTION AND PROPER PROTECTIVE EQUIPMENT. VENTILATE IF IN ENCLOSED AREA. RECOVER AS LIQUID USING HAND OR EXPLOSION PROOF PUMP OR USE SUITABLE ABSORBANT TO COLLECT. CLEAN UP BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVAL OF CONTAMINATED SOILS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

STORE IN CLOSED CONTAINERS. AVOID FREEZING. AVOID EXCESSIVE CONTACT WITH SKIN OR EYES. DO NOT INHALE VAPORS.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR - CHEMICAL CARTRIDGE RESPIRATOR WITH APPROPRIATE CARTRIDGE, IF REQUIRED.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: BLACK LIQUID, ODOR OF BUTYL CELLOSOLVE ACETATE
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): NOT AVAILABLE
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.01

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SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

BOILING POINT ('F): 212
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 35-45% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

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SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: YES - IF IT BECOMES A WASTE AS SOLD.
RCRA #: D001

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: YES
RQ MET AT: NONE
UN/NA NUMBER : NA1993
PACKING GROUP: III
HAZARD CLASSIFICATION: COMBUSTIBLE LIQUID
SUBSIDIARY RISK 1: NONE
SUBSIDIARY RISK 2: NONE
POISON INHALATION: NO HAZARD ZONE: NONE
MARINE POLLUTANT: NO
DOT LABEL(S) REQUIRED: NONE
NORTH AMERICAN EMERGENCY RESPONSE GUIDE NO.: 128

SHIPPING NAME: COMBUSTIBLE LIQUID, N.O.S. (DIISOBUTYLKETONE)

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS:
UN/NA NUMBER: UN1993
PACKING GROUP: III
HAZARD CLASS/DIVISION: 3 FLAMMABLE AND COMBUSTIBLE LIQUID
SUBSIDIARY RISK 1: NONE
SUBSIDIARY RISK 2: NONE
PASSENGER AIRCRAFT FORBIDDEN: NO

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (DIISOBUTYLKETONE)

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION:
UN/NA NUMBER: UN1993
PACKING GROUP: III
HAZARD CLASS/DIVISION: 3.3 HIGH FLASHPOINT LIQUID HAVING A FLASHPOINT OF 73 F (23 C) UP TO 141 C), CLOSED CUP TEST
SUBSIDIARY RISK 1: NONE
SUBSIDIARY RISK 2: NONE
MARINE POLLUTANT: NO
PAGE/AMENDMENT#: 3372/27-94

SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (DIISOBUTYLKETONE)

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: Y
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y
SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS PRIORITY POLLUTANT DI-SEC, OCTYL PHTHALATE AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 35-45% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

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SECTION 15 - REGULATORY INFORMATION (CONT.)

COMPONENT	CAS NO.	WT.%	RQ(LB)
2-BUTOXYETHYL ACETATE	112-07-2	25-50	NO RQ
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	25-50	NO RQ
METHYL ETHYL KETONE	78-93-3	2-3	5000

RCRA HAZARDOUS WASTE: YES - IF IT BECOMES A WASTE AS SOLD.
RCRA #: D001

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
KEEP AWAY FROM HEAT AND OTHER SOURCES OF IGNITION.

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!

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SECTION 16 - OTHER INFORMATION (CONT.)

COMBUSTIBLE LIQUID AND VAPOR

WARNING!
POSSIBLE CANCER HAZARD BASED ON TESTS WITH LABORATORY ANIMALS. OVER EXPOSURE MAY CREATE CANCER RISK.

LABEL PRECAUTIONS:

DO NOT BREATH VAPORS. USE WITH ADEQUATE VENTILATION. DO NOT GET IN EYES OR ON CLOTHING. WASH FROM SKIN AND EYES IMMEDIATELY. KEEP FROM HEAT AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE

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SECTION 16 - OTHER INFORMATION (CONT.)

OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

M A T E R I A L S A F E T Y D A T A S H E E T

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MELIO EW-347 LIQUID
296092 VERSION: 01 REVISED DATE: 01/22/1992

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WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	2 *
FLAMMABILITY	2
REACTIVITY	0
PERSONAL PROTECTION	D

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO EW-347 LIQUID
PRODUCT CODE: 296092
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: NITROCELLULOSE-LACQUER DISPERSION IN WATER AND ORGANIC SOLVENTS
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
2-BUTOXYETHYL ACETATE	112-07-2	35-40	NOT ESTABLISHED
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	35-41	NOT ESTABLISHED
DIISOBUTYL KETONE	108-83-8	5-10	25 PPM OSHA
LD50(ORAL)(RAT) - 5750 MG/KG			ACGIH
DI-SEC, OCTYL PHTHALATE	117-81-7	1-3	TWA-5 MG/M3
LD50(ORAL)(RAT) - 30600 MG/KG			STEL-10 MG/M3
			OSHA
			5 MG/M3 ACGIH

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

2-BUTOXYETHYL ACETATE: SKIN (RABBIT)(500 MG-OPEN)-MILD. LD50 (RAT)(ORAL)-2400 MG/KG. LD50 (RAT)(SKIN) - 1580 MG/KG. TOXICITY IS MODERATE VIA ORAL AND DERMAL ROUTES. A MILD SKIN IRRITANT. MAY CAUSE KIDNEY DAMAGE, NECROSIS, HEMORRHAGE, HEMOGLOBINURIA, AND DEATH. INHALATION OF VAPORS

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

MAY CAUSE SORE THROAT, COUGHING, AND INCLUDE NERVOUS SYSTEM EFFECTS SUCH AS HEADACHE, NAUSEA, DULLNESS, AND DIZZINESS. INGESTION MAY CAUSE SORE THROAT, ABDOMINAL PAIN AND VOMITING, KIDNEY DAMAGE, AND NERVOUS SYSTEM EFFECTS SUCH AS HEADACHE, DULLNESS, AND DIZZINESS.

GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL: GLYCOL ETHERS INCLUDE MONO- AND DI- ETHERS OF ETHYLENE GLYCOL, DIETHYLENE GLYCOL, AND TRIETHYLENE GLYCOL WHICH ARE REGULATED AS A CHEMICAL CATEGORY UNDER SARA SECTION 313 REGULATIONS. THE HEALTH EFFECTS OF GLYCOL ETHERS VARY WITH THE PARTICULAR GLYCOL ETHER. THESE EFFECTS MAY INCLUDE IRRITATION TO THE SKIN, EYES, RESPIRATORY TRACT, AND MUCOUS MEMBRANES. THEY MAY INCLUDE EFFECTS ON THE REPRODUCTIVE SYSTEM, INCLUDING REDUCTION OF SPERM COUNT OR BIRTH DEFECTS.

DIISOBUTYL KETONE: EYE (HUMAN)(25 PPM/15M)-MILD. SKIN (RABBIT)(10MG/24H)-MILD. TCLO (HUMAN)(INHALATION)(50 PPM) - IRRITANT. LD50 (RAT)(ORAL) - 5750 MG/KG. TOXICITY - MODERATE VIA ORAL AND INHALATION ROUTES, LOW VIA DERMAL ROUTE. MILD IRRITANT. NARCOTIC EFFECT IN HIGH CONCENTRATIONS.

DI-SEC, OCTYL PHTHALATE: SKIN (RABBIT)(500 MG/24H) - MILD. EYE (RABBIT) (500 MG/24H) - MILD. TDLO (HUMAN)(ORAL) - 143 MG/KG. LD50 (RAT)(ORAL) - 31000 MG/KG. CARCINOGENIC DETERMINATION - ANIMAL POSITIVE (IARC), HUMAN INDEFINITE (IARC), LISTED AS AN EXPERIMENTAL TERATOGEN. A SKIN EYE IRRITANT.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:
NONE:
OSHA:
NTP:
IARC: X
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

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SECTION 04 - FIRST AID MEASURES (CONT.)

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): 156 PMCC
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

DECOMPOSITION PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

PREVENT RUN OFF TO SEWERS AND BODIES OF WATER FROM FIRE FIGHTING INVOLVING THIS PRODUCT AS PRODUCT CONTAINS CLEAN WATER ACT PRIORITY POLLUTANTS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. PREVENT SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATORY PROTECTION AND PROPER PROTECTIVE EQUIPMENT. VENTILATE IF IN ENCLOSED AREA.

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SECTION 06 - ACCIDENTAL RELEASE MEASURES (CONT.)

RECOVER AS LIQUID USING HAND OR EXPLOSION PROOF PUMP OR USE SUITABLE ABSORBANT TO COLLECT. CLEAN UP BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVAL OF CONTAMINATED SOILS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

STORE IN CLOSED CONTAINERS. AVOID FREEZING. AVOID EXCESSIVE CONTACT WITH SKIN OR EYES. DO NOT INHALE VAPORS.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR - CHEMICAL CARTRIDGE RESPIRATOR WITH APPROPRIATE CARTRIDGE, IF REQUIRED.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITE MILKY LIQUID, ODOR OF BUTYL CELLOSOLVE ACETATE
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): NOT AVAILABLE
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: NOT AVAILABLE
BOILING POINT ('F): 212-375
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE

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MELIO EW-347 LIQUID
296092 VERSION: 01 REVISED DATE: 01/22/1992

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SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 88-92% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): 4500 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: MILDLY IRRITATING
EYE IRRITATION-RABBIT: MILDLY IRRITATING

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

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SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: YES
RQ MET AT: NONE
UN/NA NUMBER : NA1993
PACKING GROUP: III
HAZARD CLASSIFICATION: COMBUSTIBLE LIQUID
SUBSIDIARY RISK 1: NONE
SUBSIDIARY RISK 2: NONE
POISON INHALATION: NO HAZARD ZONE: NONE
MARINE POLLUTANT: NO
DOT LABEL(S) REQUIRED: NONE
NORTH AMERICAN EMERGENCY RESPONSE GUIDE NO.: 128

SHIPPING NAME: COMBUSTIBLE LIQUID, N.O.S. (TOLUENE)

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):

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SECTION 15 - REGULATORY INFORMATION (CONT.)

REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: Y
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS PRIORITY POLLUTANT DI-SEC, OCTYL PHTHALATE AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 88-92% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
2-BUTOXYETHYL ACETATE	112-07-2	35-40	NO RQ
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	35-41	NO RQ
DI-SEC, OCTYL PHTHALATE	117-81-7	1-3	100

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

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SECTION 15 - REGULATORY INFORMATION (CONT.)

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

KEEP AWAY FROM HEAT AND OTHER SOURCES OF IGNITION.

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
COMBUSTIBLE LIQUID AND VAPOR

WARNING!
POSSIBLE CANCER HAZARD BASED ON TESTS WITH LABORATORY ANIMALS. OVER EXPOSURE MAY CREATE CANCER RISK.

LABEL PRECAUTIONS:

DO NOT BREATH VAPORS. USE WITH ADEQUATE VENTILATION. DO NOT GET IN EYES OR ON CLOTHING. WASH FROM SKIN AND EYES IMMEDIATELY. KEEP FROM HEAT AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

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SECTION 16 - OTHER INFORMATION (CONT.)

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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MATERIAL SAFETY DATA SHEET

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------ H M I S ------
HEALTH 2 *
FLAMMABILITY 2
REACTIVITY 0
PERSONAL PROTECTION H

CTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO EW-348 LIQUID
PRODUCT CODE: 296094
ERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
EMICAL FAMILY: NITROCELLULOSE LACQUER IN AQUEOUS/ORGANIC SOLVENTS
FORMULA: MIXTURE
IMARY PRODUCT USE: LEATHER FINISHING

CTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

MPONENT	CAS NO.	WT.%	PEL/TLV
HYLHEXYL ACETATE LD50(ORAL,RAT): 3000 MG/KG	103-09-3	35-40	NOT ESTABLISHED
ISOBUTYL KETONE LD50(ORAL)(RAT) - 5750 MG/KG	108-83-8	5-10	25 PPM OSHA ACGIH
BUTYLPHTHALATE LD50(ORAL)(RAT) - 8000 MG/KG	84-74-2	1-5	5 MG/M3 OSHA ACGIH
OPROPANOL LD50(ORAL)(RAT) - 5840 MG/KG LC50(RAT,8HR) - 12000 PPM	67-63-0	1-5	ACGIH/OSHA TWA: 400 PPM; ACGIH STEL: 500 PPM; NIOSH IDLH: 2000 PPM (LEL);
HOXYLATED NONYL PHENOL	9016-45-9	1-5	NOT ESTABLISHED
TROCELLULOSE	9004-70-0	5-15	NOT ESTABLISHED

TION 03 - HAZARDS IDENTIFICATION

ER TO SECTION 11 FOR ADDITIONAL INFORMATION)
CTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION: X
INGESTION: X

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ECTION 03 - HAZARDS IDENTIFICATION (CONT.)

FECTS OF EXPOSURE:

ETHYLHEXYL ACETATE: CHEMICAL IS MODERATELY TOXIC BY INGESTION. IT IS A SKIN AND EYE IRRITANT.

DIISOBUTYL KETONE: EYE (HUMAN)(25 PPM/15M)-MILD. SKIN (RABBIT)(10MG/24H)-MILD. TCLO (HUMAN)(INHALATION)(50 PPM) - IRRITANT. LD50 (RAT)(ORAL) - 5750 MG/KG. TOXICITY - MODERATE VIA ORAL AND INHALATION ROUTES, LOW VIA DERMAL ROUTE. MILD IRRITANT. NARCOTIC EFFECT IN HIGH CONCENTRATIONS.

DIBUTYLPHTHALATE: PRODUCT IS AN EXPERIMENTAL TERATOGEN AND A HUMAN EYE IRRITANT. MALE REPRODUCTIVE EFFECTS HAVE BEEN REPORTED IN TESTING ON RATS AT THE CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY. POSITIVE MUTAGENIC ACTIVITY HAS BEEN DETECTED IN SEVERAL IN VITRO STUDIES. IN GENERAL, UNCORROBORATED CASE REPORTS AND IN VITRO STUDIES, SUCH AS AMES TESTS, ARE USEFUL PIECES OF INFORMATION, BUT NOT DEFINITIVE FINDINGS OF HAZARDS.

ISOPROPANOL: EYE (HUMAN) - 20 PPM. ORAL LDLO (HUMAN) - 8600 MG/KG. TCLO (HUMAN) - 400 PPM. INHALATION IRRITANT. INDEFINITE CARCINOGENIC DETERMINATION (IARC). TOXICITY IS LOW VIA DERMAL AND MODERATE VIA ORAL AND INTRAPERITONEAL ROUTES. AN EYE IRRITANT. ACTS AS A LOCAL IRRITANT AND IN HIGH CONCENTRATIONS AS A NARCOTIC. IT CAN CAUSE CORNEAL BURNS AND OFTEN EYE DAMAGE. IT IS NOT CONSIDERED AN IMPORTANT TOXIC HAZARD. INGESTION OR INHALATION OF LARGE QUANTITIES OF THE VAPOR MAY CAUSE FLUSHING, HEADACHE, DIZZINESS, MENTAL DEPRESSION, NAUSEA, VOMITING, NARCOSIS, ANESTHESIA AND COMA. 100 ML CAN BE FATAL. THE FOLLOWING IS A SUMMARY OF TSCA SECTION 4 TEST RULE RESULTS: LARGE DOSES GIVEN TO PREGNANT RATS AND RABBITS (>800 MG/KG/DAY AND 480 MG/KG/DAY RESPECTIVELY) PRODUCED EVIDENCE OF TOXICITY IN THE MOTHERS BUT LITTLE EVIDENCE OF FETAL OR EMBRYO TOXICITY (EXCEPT FOR SLIGHT DECREASES IN FETAL WEIGHTS IN RATS). NO EVIDENCE OF TERATOGENICITY WAS NOTED IN EITHER SPECIES.

ETHOXYLATED NONYL PHENOL: SOME ETHOXYLATED COMPOUNDS HAVE BEEN KNOWN TO CAUSE SKIN AND EYE IRRITATION. ANY KNOWN SPECIFIC EFFECTS ARE LISTED BELOW.

N EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

ED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:

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ECTION 03 - HAZARDS IDENTIFICATION (CONT.)

OTHER:

ECTION 04 - FIRST AID MEASURES

RST AID FOR EYES:

IMMEDIATELY WASH THE EYES WITH LARGE AMOUNTS OF WATER, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK MEDICAL ATTENTION IMMEDIATELY.

RST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

RST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

RST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

E TO PHYSICIAN:

NONE KNOWN

TION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): 114.8 PMCC
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

IGNITION TEMPERATURE ('F): 824 (440 C)

ARDOUS COMBUSTION PRODUCTS:

IF HEATED TO COMBUSTION, CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES, AMMONIA, HYDROGEN CYANIDE, SMOKE, ALDEHYDES, AND CARBOXYLIC ACIDS MAY BE FORMED.

XTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

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ECTION 05 - FIRE FIGHTING MEASURES (CONT.)

PECIAL FIRE FIGHTING PROCEDURES:

HIGH HEAT ON DRUMS OF NITROCELLULOSE WILL CAUSE VAPORIZATION OF THE WETTING AGENT, RESULTING IN AN INCREASE IN PRESSURE WHICH MAY CAUSE THE RELEASE OF THE DRUM LID. USE EXTREME CAUTION IN APPROACHING FIRES INVOLVING THIS MATERIAL. FIGHT FIRES FROM A SAFE DISTANCE. SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED. NO ATTEMPT SHOULD BE MADE TO FIGHT ADVANCED FIRES, EXCEPT FOR REMOTE ACTIVATION OF INSTALLED FIRE EXTINGUISHING EQUIPMENT. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL.

USUAL FIRE AND EXPLOSION HAZARDS:

NITROCELLULOSE SHOULD NEVER BE PERMITTED TO BECOME DRY. IT IS HIGHLY DANGEROUS IN THE DRY STATE SINCE IT CAN EASILY BE IGNITED AND BURNS RAPIDLY WITH INTENSE HEAT. UNDER CERTAIN CONDITIONS, THE BURNING OF SOLVENT-WET NITROCELLULOSE WILL RESULT IN THE EVOLUTION OF LARGE VOLUMES OF TOXIC FUMES. ANY PERSON BREATHING THE FUMES FROM BURNING NITROCELLULOSE SHOULD BE PLACED PROMPTLY UNDER A PHYSICIAN'S CARE.

CTION 06 - ACCIDENTAL RELEASE MEASURES

EPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. PREVENT SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATORY PROTECTION AND PROPER PROTECTIVE EQUIPMENT. VENTILATE IF IN ENCLOSED AREA. RECOVER AS LIQUID USING HAND OR EXPLOSION PROOF PUMP OR USE SUITABLE ABSORBANT TO COLLECT. CLEAN UP BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVAL OF CONTAMINATED SOILS.

TION 07 - HANDLING AND STORAGE

DLING AND STORAGE INFORMATION:

ELECTRICALLY BOND AND GROUND THE DRUM WHILE EMPTYING.
DO NOT ALLOW CONTENTS TO BECOME DRY.
HANDLE CAREFULLY - DO NOT PUNCTURE, DROP OR SLIDE CONTAINER.

TION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

PIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR - CHEMICAL CARTRIDGE RESPIRATOR WITH APPROPRIATE CARTRIDGE, IF REQUIRED.

ECTIVE GLOVES:

BUTYL RUBBER OR NEOPRENE

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ECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

E PROTECTION:

CHEMICAL SPLASH GOGGLES

HER PROTECTIVE EQUIPMENT:

THE USE OF IMPERVIOUS COVERALLS AND BOOTS IS HIGHLY RECOMMENDED WHEN HANDLING THIS PRODUCT.

NTILATION:

GOOD GENERAL VENTILATION SHOULD BE PROVIDED TO KEEP VAPOR CONCENTRATIONS BELOW THE RECOMMENDED EXPOSURE LIMIT.

POSURE LIMITS: NONE ON PRODUCT

LH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

TION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MILKY LIQUID, WEAK SOLVENT ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): NOT AVAILABLE
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 0.96 G/CM3
BOILING POINT ('F): 212 (100 C)
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
POR PRESSURE(MM HG): NOT AVAILABLE
POR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 25-35% WATER
(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT:

ER PHYSICAL AND CHEMICAL PROPERTIES:
DENSITY: 8.01 LBS/GAL
SOLIDS: 14.5 - 16.5%
NITROCELLULOSE DECOMPOSES AT 320 F (160 C)

TION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

RDOUS POLYMERIZATION WILL NOT OCCUR

MATERIAL SAFETY DATA SHEET

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ECTION 10 - STABILITY AND REACTIVITY (CONT.)

CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

CTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 5000 MG/KG BODY WEIGHT
RMAL IRRITATION-RABBIT: IRRITATING
EYE IRRITATION-RABBIT: IRRITATING

HER TOXICOLOGICAL VALUES:

ACUTE ORAL TOXICITY: METHOD - OECD
IRRITANT EFFECT ON SKIN: METHOD - OECD 404*1981 DERMAL IRRITATION/CORROSION
IRRITANT EFFECT ON EYES: METHOD - OECD 405*1981 EYE IRRITATION/CORROSION

CTION 12 - ECOLOGICAL INFORMATION

OLOGICAL ELIMINATION:

87 % ANALYSIS: METHOD: NONE

ATIC TOXICITY:

CIES: NONE	LC100: NONE	MG/L	TIME:	H
CIES: NONE	LC 50: NONE	MG/L	TIME:	H
CIES: NONE	LC 0: NONE	MG/L	TIME:	H

TERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): > 100
ETAD METHOD 103

CHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

TION 13 - DISPOSAL CONSIDERATIONS

E DISPOSAL INFORMATION:

RECOMMENDED DISPOSAL IS BY INCINERATION IN APPROVED FACILITIES.

HAZARDOUS WASTE: YES - IF IT BECOMES A WASTE AS SOLD.
RCRA #: D001

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

MATERIAL SAFETY DATA SHEET

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CTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

CTION 14 - TRANSPORT INFORMATION

T REGULATED: YES
RQ MET AT: 200# 1,2-Benzenedicarboxylic acid, dibutyl es
ter
/NA NUMBER : UN1263
CKING GROUP: III
ZARD CLASSIFICATION: 3
FLAMMABLE AND COMBUSTIBLE LIQUID
BSIDIARY RISK 1: NONE
BSIDIARY RISK 2: NONE
ISON INHALATION: NO HAZARD ZONE: NONE
ARINE POLLUTANT: YES 1,2-Benzenedicarboxylic acid, dibutyl es
ter
T LABEL(S) REQUIRED: FLAMMABLE LIQUID
RTH AMERICAN EMERGENCY RESPONSE GUIDE NO.: 127

IPPING NAME: PAINT

T REGULATED BULK ONLY: NO

ADIAN TRANSPORT REGULATION: NOT DETERMINED

TERNATIONAL AIR TRANSPORTATION REGULATIONS:
UN/NA NUMBER: UN1263
PACKING GROUP: III
HAZARD CLASS/DIVISION: 3 FLAMMABLE AND COMBUSTIBLE LIQUID
SIDIARY RISK 1: NONE
SIDIARY RISK 2: NONE
SENGER AIRCRAFT FORBIDDEN: NO

PPING NAME: PAINT

ERNATIONAL MARITIME DANGEROUS GOODS REGULATION:
UN/NA NUMBER: UN1263
PACKING GROUP: III
HAZARD CLASS/DIVISION: 3 FLAMMABLE AND COMBUSTIBLE LIQUID
SIDIARY RISK 1: NONE
SIDIARY RISK 2: NONE
RINE POLLUTANT: YES 1,2-Benzenedicarboxylic acid, dibutyl es
ter
AGE/AMENDMENT#:

PPING NAME: PAINT

MATERIAL SAFETY DATA SHEET

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ECTION 14 - TRANSPORT INFORMATION (CONT.)

CTION 15 - REGULATORY INFORMATION

CA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

RA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: Y
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

RA(SECTION 302):
ONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

RA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

EAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS PRIORITY POLLUTANT DIBUTYLPHTHALATE AT CONCENTRATIONS GREATER THAN 0.1%.

EAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 25-35% WATER

CLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

OMPONENT	CAS NO.	WT.%	RQ(LB)
BUTYLPHTHALATE	84-74-2	1-5	10

A HAZARDOUS WASTE: YES - IF IT BECOMES A WASTE AS SOLD.
RCRA #: D001

: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

A: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

A: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: YES

MATERIAL SAFETY DATA SHEET

RIANT CORPORATION
O MONROE ROAD
RLOTTE, N.C. 28205

MELIO EW-348 LIQUID
296094 VERSION: 01 REVISED DATE: 08/14/2002

Clariant

Chemical Emergency
1 CHEMTREC - Day or Night
00-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

CTION 15 - REGULATORY INFORMATION (CONT.)

LISTED ON NDSL: NO
CEPA STATUS:
PRODUCT NOT YET EVALUATED

MIS: NOT EVALUATED

CTION 16 - OTHER INFORMATION

HER PRECAUTIONS:

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE:
ELIMINATE SOURCES OF IGNITION.
COMPLETELY ISOLATE AND THOROUGHLY CLEAN ALL EQUIPMENT, PIPING OR VESSELS BEFORE BEGINNING MAINTENANCE OR REPAIRS.

ATE REGULATORY INFORMATION:
NNSYLVANIA: AS NOTED PER SECTION 2.

SSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

BEL INFORMATION:
BEL HAZARDS:

CAUTION!
COMBUSTIBLE LIQUID AND VAPOR

WARNING!
CAUSES IRRITATION TO EYES AND SKIN

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
MAY CAUSE HARM TO THE UNBORN CHILD.

BEL PRECAUTIONS:

DO NOT BREATHE VAPORS. USE WITH ADEQUATE VENTILATION. DO NOT GET IN EYES OR ON CLOTHING. WASH FROM SKIN AND EYES IMMEDIATELY. KEEP FROM HEAT AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE.

EYE CONTACT: FLUSH WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING

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CTION 16 - OTHER INFORMATION (CONT.)

EYELIDS OPEN. SEEK IMMEDIATE MEDICAL ATTENTION.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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spray finish

MATERIAL SAFETY DATA SHEET

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CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO FILLER D LIQUID
296312 VERSION: 01 REVISED DATE: 08/21/2001

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
TANNING DIV
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety ManagerIC

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO FILLER D LIQUID
PRODUCT CODE: 296312
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: NATURAL MINERALS (CASEIN, LINSEED) IN AQUEOUS EMULSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
CASTOR OIL, SULFONATE, SODIUM SALT	68187-76-8	< 2	NOT ESTABLISHED
PHENOL	108-95-2	< 0.1	5 PPM SKIN OSHA/ACGIH

LD50(ORAL,RAT) - 350 - 530 MG/KG
LD50 (DERMAL,RABBIT) - 850 MG/KG

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

CASTOR OIL, SULFONATE, SODIUM SALT: REPORTED TO CAUSE GASTROINTESTINAL IRRITATION, NAUSEA AND DIARRHEA IF INGESTED. AN EYE AND SKIN IRRITANT. OVER EXPOSURE TO VAPORS CAN CAUSE NASAL AND RESPIRATORY PROBLEMS. NO EFFECTS OF CHRONIC EXPOSURE ARE REPORTED.

PHENOL: LD50 (SKIN)(ABSORPTION)(RABBITS) - 850 MG/KG. SINGLE DOSE ORAL TOXICITY IS MODERATE. MAY CAUSE SEVERE EYE IRRITATION WITH CORNEAL INJURY WHICH MAY RESULT IN PERMANENT IMPAIRMENT OF VISION, EVEN BLIND-

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NESS. SHORT SINGLE EXPOSURE MAY CAUSE SKIN BURNS. RAPIDLY ABSORBED THROUGH THE SKIN IN AMOUNTS WHICH COULD CAUSE DEATH. AMOUNTS INGESTED INCIDENTAL TO INDUSTRIAL HANDLING MAY CAUSE SERIOUS EFFECTS; INGESTION OF LARGER AMOUNTS COULD CAUSE DEATH. MAY CAUSE SEVERE BURNS OF THE MOUTH AND THROAT. INGESTION OF AMOUNTS AS SMALL AS 1 GRAM MAY BE LETHAL TO HUMANS. EXCESSIVE VAPOR CONCENTRATIONS ARE READILY ATTAINABLE AND MAY CAUSE SERIOUS ADVERSE EFFECTS, EVEN DEATH. EXCESSIVE EXPOSURE TO VAPORS MAY ALSO CAUSE IRRITATION TO THE UPPPER RESPIRATORY TRACT AND LUNGS. REPEATED EXCESSIVE EXPOSURES MAY CAUSE LIVER AND KIDNEY EFFECTS. REPEATED EXCESSIVE EXPOSURES IN SMALLER AMOUNTS MAY CAUSE RESPIRATORY DIFFICULTY AND SIGNS OF PARALYSIS. SIGNS AND SYMPTOMS OF EXCESSIVE EXPOSURE MAY BE CENTRAL NERVOUS SYSTEM EFFECTS. DID NOT CAUSE CANCER IN LONG-TERM ANIMAL STUDIES. HAS BEEN SHOWN TO PROMOTE THE GROWTH OF SKIN TUMORS INDUCED BY A CARCINOGEN. AT EXCESSIVE LEVELS TOXIC TO THE MATERNAL ANIMAL, TOXICITY AND LETHALITY TO THE NEONATES WAS OBSERVED. HOWEVER, BIRTH DEFECTS ARE UNLIKELY; EVEN EXPOSURES HAVING ADVERSE EFFECTS ON THE MOTHER SHOULD HAVE NO EFFECT ON THE FETUS. IN ANIMAL STUDIES, HAS BEEN SHOWN NOT TO INTERFERE WITH REPRODUCTION. HAS BEEN SHOWN TO BE A MUTAGEN IN BACTERIA. IN GENERAL, UNCORROBORATED CASE REPORTS AND IN VITRO STUDIES, SUCH AS AMES TESTS, ARE USEFUL PIECES OF INFORMATION, BUT NOT DEFINITIVE FINDINGS OF HAZARDS.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING

SECTION 04 - FIRST AID MEASURES (CONT.)

HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212 (100 C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON AND NITROGEN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

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MELIO FILLER D LIQUID
296312 VERSION: 01 REVISED DATE: 08/21/2001

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1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 06 - ACCIDENTAL RELEASE MEASURES (CONT.)

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	WHITE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD:	NO DATA AVAILABLE
PH (% IN WATER):	7 - 9
SOLUBILITY IN WATER:	MISCIBLE
SPECIFIC GRAVITY:	1.11 G/CM3
BOILING POINT ('F):	212 TYPICAL
MELTING POINT ('F):	NOT AVAILABLE
FREEZING POINT ('F):	NOT AVAILABLE
VAPOR PRESSURE(MM HG):	NOT AVAILABLE
VAPOR DENSITY (AIR=1):	NOT AVAILABLE
EVAPORATION RATE:	NOT AVAILABLE
LOSS ON DRYING(%):	60-70% WATER
VOC(EPA METHOD 24/24A):	1.6%

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SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

OCTANOL/WATER PARTITION COEFFICIENT:

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
DENSITY: 9.26 LBS/GAL

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE OF THE PREPARATIONS DIRECTIVE (88/379/EC).

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

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SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N
SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):

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SECTION 15 - REGULATORY INFORMATION (CONT.)

THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 1.6%
LOSS ON DRYING (%): 60-70% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

OTHER STATE REGULATORY INFORMATION:
CALIFORNIA (PROPOSITION 65)

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SECTION 16 - OTHER INFORMATION (CONT.)

THIS PRODUCT CONTAINS TRACE LEVELS OF A COMPONENT OR COMPONENTS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER:
-FORMALDEHYDE (50-00-0)

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE GASTROINTESTINAL DISTURBANCES IF INGESTED.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

AVOID INGESTION. WASH THOROUGHLY AFTER HANDLING.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL

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SECTION 16 - OTHER INFORMATION (CONT.)

VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

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MELIO GROUND BG LIQUID
296012 VERSION: 01 REVISED DATE: 11/01/1995

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TANNING DIV
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I'S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO GROUND BG LIQUID
PRODUCT CODE: 296012
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS OIL-EMULSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
NONE UNDER 29 CFR 1910.1200			
NONE UNDER TITLE III OF SARA			
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): NOT AVAILABLE
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

DECOMPOSITION PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
NONE KNOWN

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO GROUND BG LIQUID
296012 VERSION: 01 REVISED DATE: 11/01/1995

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LIQUID, NO ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 3.0 - 4.0
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 0.94
BOILING POINT ('F): ABOUT 212
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 76-78% WATER
VOC(EPA METHOD 24/24A): 0%
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): 10000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: MILDLY IRRITATING
EYE IRRITATION-RABBIT: MILDLY IRRITATING

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

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4000 MONROE ROAD
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SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
INCINERATE IN COMPLIANCE WITH REGULATIONS OR BURY IN APPROVED LANDFILL IN COMPLIANCE WITH REGULATIONS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

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SECTION 15 - REGULATORY INFORMATION (CONT.)

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 0%
LOSS ON DRYING (%): 76-78% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

SECTION 16 - OTHER INFORMATION (CONT.)

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

LABEL PRECAUTIONS:

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. WEAR PROPER PROTECTIVE EQUIPMENT.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE

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MELIO GROUND BG LIQUID
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SECTION 16 - OTHER INFORMATION (CONT.)

OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

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CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO GROUND K LIQUID
293224 VERSION: 01 REVISED DATE: 11/01/1995

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
TANNING DIV
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO GROUND K LIQUID
PRODUCT CODE: 293224
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: CATIONIC OIL EMULSION, CONTAINING POLYMERS
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
NONE UNDER 29 CFR 1910.1200			
NONE UNDER TITLE III OF SARA			
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR FIFTEEN MINUTES.

FIRST AID FOR INHALATION:

REMOVE SUBJECT TO FRESH AIR. SEEK MEDICAL AID IF LUNG IRRITATION PERSISTS OR IF BREATHING BECOMES DIFFICULT.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212 (100'C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

DECOMPOSITION PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

STORE PRODUCT PROTECTED FROM HEAT AND FREEZING.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR - CHEMICAL CARTRIDGE RESPIRATOR WITH APPROPRIATE CARTRIDGE, IF REQUIRED.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

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MELIO GROUND K LIQUID
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CLARIANT Corporation: (704) 331-7000

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MILKY WHITE LIQUID, PRODUCT SPECIFIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 5-7
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 0.92 @ 20'C
BOILING POINT ('F): 212 (100'C)
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): 23 MBAR
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): ABOUT 55
VOC(EPA METHOD 24/24A): 0.4%
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:
SPECIES: NONE LC100: NONE MG/L TIME: H
SPECIES: NONE LC 50: NONE MG/L TIME: H

SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

SPECIES: NONE LC 0: NONE MG/L TIME: H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

CLARIANT CORPORATION
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MELIO GROUND K LIQUID
293224 VERSION: 01 REVISED DATE: 11/01/1995

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1-800-424-9300

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CLARIANT Corporation: (704) 331-7000

SECTION 15 - REGULATORY INFORMATION (CONT.)

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 0.4%
LOSS ON DRYING (%): ABOUT 55

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

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CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:
NONE

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT

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MELIO GROUND K LIQUID
293224 VERSION: 01 REVISED DATE: 11/01/1995

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For MSDS Info: (704) 331-7710
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SECTION 16 - OTHER INFORMATION (CONT.)

DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

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MELIO MATTPASTE C LIQUID
296210 VERSION: 01 REVISED DATE: 09/20/2002

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Chemical Emergency
l CHEMTREC - Day or Night
)0-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

------ H M I S ------
HEALTH 1 *
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION B

TION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO MATTPASTE C LIQUID
PRODUCT CODE: 296210
RSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
MICAL FAMILY: SILICIC ACID AND POLYACRYLIC ACID DERIVATIVE IN AQUEOUS DISPERSION
FORMULA: MIXTURE
MARY PRODUCT USE: LEATHER FINISHING

:ION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

IPONENT	CAS NO.	WT.%	PEL/TLV
RPHOUS SILICA	7631-86-9	15-20	ACGIH TLV: 10 MG/M3 OSHA PEL: 20 MPPCF (TWA)

ION 03 - HAZARDS IDENTIFICATION

ER TO SECTION 11 FOR ADDITIONAL INFORMATION)
CTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION: X
EYE CONTACT: X
INHALATION: X
INGESTION: X

TS OF EXPOSURE:

SILICA: CONSIDERED TO BE A NUISANCE DUST AND MAY CAUSE IRRITATION TO THE LUNGS. HAS ALSO BEEN KNOWN TO CAUSE EYE IRRITATION IN CERTAIN INDIVIDUALS. PROLONGED INHALATION OF DUSTS CONTAINING FREE SILICA MAY RESULT IN THE DEVELOPMENT OF A DISABLING PULMONARY FIBROSIS KNOWN AS SILICOSIS.

EFFECTS ON OTHER ILLNESSES:

5 for VOC

MATERIAL SAFETY DATA SHEET

RIANT CORPORATION
) MONROE ROAD
RLOTTE, N.C. 28205

MELIO MATTPASTE C LIQUID
296210 VERSION: 01 REVISED DATE: 09/20/2002

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Chemical Emergency
l CHEMTREC - Day or Night
)0-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

:TION 03 - HAZARDS IDENTIFICATION (CONT.)

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

:TED CARCINOGEN:
NONE: X
OSHA:
NTP:
IARC:
OTHER:

TION 04 - FIRST AID MEASURES

ST AID FOR EYES:

IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

ST AID FOR SKIN:

REMOVE CONTAMINATED CLOTHING WITHOUT DELAY. IMMEDIATELY WASH THE SKIN WITH SOAP AND WATER UNDER A SAFETY SHOWER. IF REDNESS OR SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

T AID FOR INHALATION:

REMOVE SUBJECT TO FRESH AIR. SEEK MEDICAL AID IF LUNG IRRITATION PERSISTS OR IF BREATHING BECOMES DIFFICULT.

T AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

TO PHYSICIAN:

NONE KNOWN

:ON 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212 (100 C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

GNITION TEMPERATURE ('F): UNKNOWN

DOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY RESULT IN FORMATION OF ACRYLIC MONOMERS. RESIDUE WILL CONTAIN SILICA.

MATERIAL SAFETY DATA SHEET

RIANT CORPORATION
0 MONROE ROAD
RLOTTE, N.C. 28205

MELIO MATTPASTE C LIQUID
296210 VERSION: 01 REVISED DATE: 09/20/2002

Clariant

Chemical Emergency
1 CHEMTREC - Day or Night
00-424-9300

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CTION 05 - FIRE FIGHTING MEASURES (CONT.)

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

CIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

SUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

ION 06 - ACCIDENTAL RELEASE MEASURES

S TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

ION 07 - HANDLING AND STORAGE

LING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

ON 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

CTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

ROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

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CTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

NTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

POSURE LIMITS: NONE ON PRODUCT

LH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

TION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 9.0 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.11 G/CM3
BOILING POINT ('F): 212 (100 C)
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
POR PRESSURE(MM HG): NOT AVAILABLE
POR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 65-75% WATER
(EPA METHOD 24/24A) < 1% ESTIMATE
OCTANOL/WATER PARTITION COEFFICIENT:

ER PHYSICAL AND CHEMICAL PROPERTIES:
DENSITY: 9.26 LBS/GAL
VISCOSITY (DYNAMIC): 1500 - 2500 MPA*S

ION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

RDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

ION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
AL IRRITATION-RABBIT: NOT TESTED

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CTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

EYE IRRITATION-RABBIT: NOT TESTED

HER TOXICOLOGICAL VALUES:

THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATIONS PROCEDURE OF THE PREPRARTIONS DIRECTIVE 88/379/EEC WITH THE BELOW RESULTS.

ACUTE ORAL TOXICITY: LD50 > 2000 MG/KG (RAT)
IRRITANT EFFECT ON SKIN: NON-IRRITANT (RABBIT)
IRRITANT EFFECT ON EYES: NON-IRRITANT (RABBIT)

TION 12 - ECOLOGICAL INFORMATION

LOGICAL ELIMINATION:

NONE % ANALYSIS: METHOD: NONE

ATIC TOXICITY:

CIES: NONE	LC100: NONE	MG/L	TIME:	H
CIES: NONE	LC 50: NONE	MG/L	TIME:	H
CIES: NONE	LC 0: NONE	MG/L	TIME:	H

TERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

HEMICAL OXYGEN DEMAND (BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND (COD-MG/L): NOT DETERMINED

ION 13 - DISPOSAL CONSIDERATIONS

E DISPOSAL INFORMATION:

RECOMMENDED DISPOSAL IS BY INCINERATION IN APPROVED SYSTEMS EQUIPPED WITH APPROPRIATE SCRUBBING DEVICES. MATERIAL MAY BE LANDFILLED IN CHEMICAL WASTE LANDFILLS.

HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

ION 14 - TRANSPORT INFORMATION

REGULATED: NO
RD CLASSIFICATION: NOT REGULATED

MATERIAL SAFETY DATA SHEET

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:TION 14 - TRANSPORT INFORMATION (CONT.)

:PPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

' REGULATED BULK ONLY: NO

ADIAN TRANSPORT REGULATION: NOT DETERMINED

ERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

ERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

IION 15 - REGULATORY INFORMATION

A: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

A (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

(SECTION 302):
TAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

N WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

N AIR ACT - VOLATILE ORGANIC COMPOUNDS:
EPA METHOD 24/24A): < 1% ESTIMATE
LOSS ON DRYING (%): 65-75% WATER

LA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

THIS PRODUCT IS NOT REGISTERED WITH THE FDA

MATERIAL SAFETY DATA SHEET

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:TION 15 - REGULATORY INFORMATION (CONT.)

)A: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

'A: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: YES
LISTED ON NDSL: NO
CEPA STATUS:
PRODUCT NOT YET EVALUATED

:IS: NOT EVALUATED

TION 16 - OTHER INFORMATION

ER PRECAUTIONS:
NONE KNOWN

IE REGULATORY INFORMATION:
NSYLVANIA: AS NOTED PER SECTION 2.

SACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

:L INFORMATION:
:L HAZARDS:
:

:L PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

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TION 16 - OTHER INFORMATION (CONT.)

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

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MELIO OIL PO-203
108095 VERSION: 01 REVISED DATE: 03/14/2003

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------ H M I S ------
HEALTH 2
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION H

ECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO OIL PO-203
PRODUCT CODE: 108095
ERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
EMICAL FAMILY: OIL BLEND
FORMULA: MIXTURE
IMARY PRODUCT USE: AUXILIARY FOR LEATHER

CTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

OMPONENT	CAS NO.	WT.%	PEL/TLV
SPHALT	8052-42-4	20-40	0.5 MG/M3
ETROLEUM DERIVATIVES	MIXTURE	30-40	PEL: 5 MG/M3 TLV: 5 MG/M3 OIL MIST

TION 03 - HAZARDS IDENTIFICATION

FER TO SECTION 11 FOR ADDITIONAL INFORMATION)
ECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION: X
INGESTION: X

ECTS OF EXPOSURE:

ASPHALT: SPLASH OF LIQUID OR CONCENTRATED VAPORS MAY CAUSE SEVERE EYE IRRITATION. SEVERE INJURIES MAY RESULT WITH REPEATED OR PROLONGED CONTACT. INJURIES TO THE EYE MAY BE PERMANENT IF NOT TREATED IMMED-IATELY. SKIN CONTACT WITH HOT PRODUCT MAY CAUSE THERMAL BURNS OF VARYING DEGREE. PROLONGED UNPROTECTED CONTACT MAY CAUSE REDNESS, IRRITATION TO THE SKIN, SENSITIVITY AND DERMATITIS. EXCESSIVE EXPOSURE TO VAPORS MAY BE IRRITATING TO THE NOSE, THROAT, UPPER RESPIRATORY TRACT AND LUNGS. EXCESSIVE EXPOSURE CAN RESULT IN HEADACHES, DIZZINESS,

Non Sales

MATERIAL SAFETY DATA SHEET

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ECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NAUSEA AND NARCOTIC EFFECTS. IF SWALLOWED, THIS PRODUCT MAY CAUSE VOMITING, NAUSEA AND DIARRHEA AND MAY BE HARMFUL IF SWALLOWED IN VERY LARGE AMOUNTS.

PETROLEUM DERIVATIVE:

EYE CONTACT: THIS PRODUCT IS PRACTICALLY NON-IRRITATING TO THE EYES DIRECT CONTACT, BASED ON TESTING OF SIMILAR PRODUCTS AND/ OR COMPONENTS.

SKIN CONTACT: THIS PRODUCT IS SLIGHTLY IRRITATING TO THE SKIN UPON DIRECT CONTACT, BASED ON TESTING OF SIMILAR PRODUCTS AND/ OR COMPONENTS. PROLONGED OR REPEATED CONTACT MAY RESULT IN DERMATITIS WHICH IS CHARACTERIZED BY DRYNESS, CHAPPING AND REDDENING. THIS CONDITION MAY MAKE THE SKIN MORE SUSCEPTIBLE TO OTHER IRRITANTS, SENSITIZERS AND DISEASE. CONSTITUENTS OF THIS PRODUCT HAVE BEEN ASSOCIATED WITH PHOTOSENSITIVITY.

INHALATION: THIS PRODUCT HAS A LOW VAPOR PRESSURE AND IS NOT EXPECTED TO PRESENT AN INHALATION HAZARD AT AMBIENT CONDITIONS. CAUTION SHOULD BE TAKEN TO PREVENT AEROSOLIZATION OR MISTING OF THIS PRODUCT. THE PERMISSABLE EXPOSURE LIMIT (PEL) AND THRESHOLD LIMIT VALUE (TLV) FOR THIS PRODUCT AS OIL MIST IS 5 MG/M3. EXPOSURES BELOW 5 MG/M3 APPEAR TO BE WITHOUT SIGNIFICANT HEALTH RISK. THE SHORT-TERM EXPOSURE+ LIMIT FOR THIS PRODUCT AS AN OIL MIST IS 10 MG/M3.

INGESTION: THIS PRODUCT IS REGARDED AS HAVING A LOW ORDER OF TOXICITY. THIS PRODUCT HAS LAXATIVE PROPERTIES.

HEALTH DATA: ON RARE OCCASIONS, PROLONGED AND REPEATED EXPOSURE TO OIL MIST POSES A RISK OF PULMONARY DISEASE SUCH AS CHRONIC LUNG INFLAMMATION. THIS CONDITION IS USUALLY ASYMPTOMATIC AS A RESULT OF REPEATED SMALL ASPIRATIONS. SHORTNESS OF BREATH AND COUGH ARE THE MOST COMMON SYMPTONS.

N EFFECTS ON OTHER ILLNESSES:

PREEXISTING EYE, SKIN, OR LUNG CONDITIONS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

ED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

ION 04 - FIRST AID MEASURES

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ECTION 04 - FIRST AID MEASURES

(CONT.)

IRST AID FOR EYES:

IMMEDIATELY WASH THE EYES WITH LARGE AMOUNTS OF WATER, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK MEDICAL ATTENTION IMMEDIATELY.

IRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

RST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

RST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

IE TO PHYSICIAN:

NONE KNOWN

CTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 500 (260 C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

OIGNITION TEMPERATURE ('F): NOT AVAILABLE

ARDOUS COMBUSTION PRODUCTS:

DECOMPOSITION PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:

WATER:
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

IAL FIRE FIGHTING PROCEDURES:

WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO COOL FIRE-EXPOSED CONTAINERS. IF A LEAK OR SPILL HAS NOT IGNITED, USE WATER SPRAY TO DISPERSE THE VAPORS AND TO PROVIDE PROTECTION FOR PERSONS ATTEMPTING TO STOP THE LEAK.

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ECTION 05 - FIRE FIGHTING MEASURES (CONT.)

NUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

ECTION 06 - ACCIDENTAL RELEASE MEASURES

EPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

CTION 07 - HANDLING AND STORAGE

NDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

TION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

PIRATORY PROTECTION:

IF USE CONDITIONS GENERATE VAPOR IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.

TECTIVE GLOVES:

RUBBER

PROTECTION:

CHEMICAL SPLASH GOGGLES

ER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

TILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

OSURE LIMITS: NONE ON PRODUCT

I (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

TION 09 - PHYSICAL AND CHEMICAL PROPERTIES

MATERIAL SAFETY DATA SHEET

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ECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

APPEARANCE AND ODOR: DARK BLACK-BROWN LIQUID WITH SLIGHT PETROLEUM ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): NOT AVAILABLE
SOLUBILITY IN WATER: INSOLUBLE
SPECIFIC GRAVITY: 0.921 G/CM3
BOILING POINT ('F): > 300 (149 C)
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
'APOR PRESSURE(MM HG): NOT AVAILABLE
'APOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): NOT AVAILABLE
C(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT:

HER PHYSICAL AND CHEMICAL PROPERTIES:
DENSITY: 7.5 - 8.0 LBS/GAL
VISCOSITY: 1250 - 1750 CPS (BROOKFIELD)

CTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

ARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: STRONG OXIDIZING AGENTS

TION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
MAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

TION 12 - ECOLOGICAL INFORMATION

OGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

TIC TOXICITY:
IES: NONE LC100: NONE MG/L TIME: H
IES: NONE LC 50: NONE MG/L TIME: H

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ECTION 12 - ECOLOGICAL INFORMATION (CONT.)

PECIES: NONE LC 0: NONE MG/L TIME: H

ACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

OCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

CTION 13 - DISPOSAL CONSIDERATIONS

STE DISPOSAL INFORMATION:

RECOMMENDED DISPOSAL IS BY INCINERATION IN APPROVED SYSTEMS EQUIPPED WITH APPROPRIATE SCRUBBING DEVICES. MATERIAL MAY BE LANDFILLED IN CHEMICAL WASTE LANDFILLS.

RA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

TION 14 - TRANSPORT INFORMATION

REGULATED: NO
ARD CLASSIFICATION: NOT REGULATED

PPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

REGULATED BULK ONLY: NO

ADIAN TRANSPORT REGULATION: NOT DETERMINED

ERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

ERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

TION 15 - REGULATORY INFORMATION

: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

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ECTION 15 - REGULATORY INFORMATION (CONT.)

ARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

RA(SECTION 302):
ONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

RA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

EAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

EAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
C(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): NOT AVAILABLE

RCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

A HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

A: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

A: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: YES
LISTED ON NDSL: NO
CEPA STATUS:
PRODUCT NOT YET EVALUATED

S: NOT EVALUATED

TION 16 - OTHER INFORMATION

R PRECAUTIONS:
NONE KNOWN

MATERIAL SAFETY DATA SHEET

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ECTION 16 - OTHER INFORMATION (CONT.)

TATE REGULATORY INFORMATION:
ENNSYLVANIA: AS NOTED PER SECTION 2.

ASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

BEL INFORMATION:
BEL HAZARDS:

WARNING!
MAY CAUSE SEVERE EYE IRRITATION
MAY CAUSE EYE DAMAGE

CAUTION!
MAY CAUSE SKIN IRRITATION.

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
MAY BE HARMFUL IF SWALLOWED

EL PRECAUTIONS:

DO NOT BREATHE VAPORS. USE WITH ADEQUATE VENTILATION. DO NOT GET IN EYES OR ON CLOTHING. WASH FROM SKIN AND EYES IMMEDIATELY. KEEP FROM HEAT AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE.

EYE CONTACT: FLUSH WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK IMMEDIATE MEDICAL ATTENTION.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

MATERIAL SAFETY DATA SHEET

ARIANT CORPORATION
00 MONROE ROAD
ARLOTTE, N.C. 28205
r Chemical Emergency
11 CHEMIREC - Day or Night
800-424-9300

MELIO OIL PO-203
108095 VERSION: 01 REVISED DATE: 03/14/2003

Clariant

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

ECTION 16 - OTHER INFORMATION (CONT.)

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

19-240666

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Red G p

Substance key: KS1768
Version : 1 - / USA

Revision Date: 03/30/2007
Date of printing :02/19/2008

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Red G p**
Material number:	101753
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		35 - 40 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Based on positive results in animal testing (guinea pig), this product may cause skin sensitization.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Store in a cool, dry, dark location. Keep containers closed when not in use. Avoid all contact with skin and eyes. Avoid breathing dust. Wear proper protective equipment. Observe all necessary precautions for handling fine organic powders to control dust. May present a dust explosion hazard. Reference exposure limit: ACGIH TLV for nuisance dust - 10 mg/m3 inhalable particulates 3 mg/m3 respirable particulates.

Further info on storage conditions:

Store in original container. Keep tightly sealed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: powder

Color:	dark red
Odor:	none
pH:	app. 8.5 (20 °C, 10 g/l)
Solubility in water:	50 g/l (20 °C)
Melting point :	> 572 °F
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	180 °C Method: isoperibolic decomposition test
Thermal decomposition:	200 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Acute dermal toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating (rabbit) Method: Estimated value as the result of the calculation method (Directive 1999/45/EC). This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	Non-irritating (rabbit) Method: Estimated value as the result of the calculation method (Directive 1999/45/EC). This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation:	< 10 % (28 d, BOD/ThODX100) not degradable in surface water Method: test result of the active component according to OECD 302B

Fish toxicity:	LC0 > 77 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component.
	LC50 > 100 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component.
Daphnia toxicity:	EC0 >= 100 mg/l (48 h, daphnia magna (water flea)) Method: test result of the active component.
	EC50 > 100 mg/l (48 h, daphnia magna (water flea)) Method: test result of the active component.
Algae toxicity:	IC50 29.5 mg/l (72 h, Scenedesmus subspicatus 86.81 sag. green algae) Method: test result of the active component.
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: test result of the active component according to OECD 209

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

One or more of the components of this product is not listed on the Toxic Substances Control Act (TSCA) Inventory. The product is thus sold under the restriction that it is only for use in research and development. This product must be used under the supervision of a technically qualified individual capable of understanding its potential hazards.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		35 - 40 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not applicable

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 4 %	5,000 LBS
CHROMIUM COMPOUNDS		35 - 40 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Warning: This product is to be used for purposes of research and development only. It must be used under the direct supervision of a technically qualified individual. Any other use will subject the user to penalties under the toxic substances control act and the regulations issued thereunder. avoid contact with skin and eyes. Wear proper protective equipment. wash thoroughly after handling.
Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

ORGANIC DUSTS HAVE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. Skin contact may cause skin sensitization. This product is not listed on the TSCA inventory. It is provided only for research and development under the supervision of an individual who is technically qualified to understand its potential hazards.

Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues. Ingestion: seek medical attention immediately.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240666

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Red G cp

Substance key: KS16202
Version : 1 - 2 / USA

Revision Date: 01/28/2005
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Red G cp**
Material number:	135431
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		35 - 40 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	no
Skin contact:	yes
Eye contact:	no
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Based on positive results in animal testing (guinea pig), this product may cause skin sensitization.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: C

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media:
water
foam
dry powder

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Store in a cool, dry, dark location. Keep containers closed when not in use. Avoid all contact with skin and eyes. Avoid breathing dust. Wear proper protective equipment. Observe all necessary precautions for handling fine organic powders to control dust. May present a dust explosion hazard. Reference exposure limit: ACGIH TLV for nuisance dust - 10 mg/m3 inhalable particulates 3 mg/m3 respirable particulates.

Further info on storage conditions:

Store in original container.
Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment:	None known
Advice on system design:	Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	compacted dye
Color:	dark red
Odor:	none
pH:	7.5 - 9.5 (20 °C, 10 g/l)
Solubility in water:	50 g/l (20 °C)
Solubility in water:	50 g/l (60 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	> 572 °F
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	180 °C Method: isoperibolic decomposition test Heating rate: 0 K/min
Thermal decomposition:	200 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Acute dermal toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating (rabbit)
Eye irritation:	Non-irritating (rabbit)

Section 12 - Ecological information

Product information:

Biodegradation:	< 10 % (28 d, BOD/ThODX100) not degradable in surface water Method: test result of the active component according to OECD 302B
Fish toxicity:	LC50 >.100 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component.
Daphnia toxicity:	EC50 > 100 mg/l (48 h, daphnia magna (water flea)) Method: test result of the active component.
Algae toxicity:	IC50 29.5 mg/l (72 h, Scenedesmus subspicatus 86.81 sag. green algae) Method: test result of the active component.
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: test result of the active component according to OECD 209

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:

C ,
Cr ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		35 - 40 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 4 %	5,000 LBS
CHROMIUM COMPOUNDS		35 - 40 %	

FDA:

Permitted for Use per Section: NONE

This product is not registered with the FDA.

Section 16 - Other information

Other precautions:

EPA will issue a Significant New Use Rule (SNUR) under Section 5a of TSCA applicable to Clariant, as well as customers, restricting the source and use of this material to non-domestic manufacture and non-powder form only. Proposed SNUR substances are also subject to TSCA Export Notification provisions.

Label information:

CAUTION!

Skin contact may cause skin sensitization.

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear proper protective equipment. Keep container closed when not in use.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240613

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Yellow R cp

Substance key: KS16197
Version : 1 - 2 / USA

Revision Date: 11/02/2006
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Yellow R cp**
Material number:	135432
Chemical family:	azo dyestuff/cobalt complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Cobalt (as an integral part of the dye or pigment molecule)	7440-48-4	< 5 %
Cobalt compound		< 60 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Cobalt and Compounds of Cobalt (7440-48-4)
Cobalt and Compounds of Cobalt: No chronic effects are known nor have been reported for this compound unless the compound is specifically listed elsewhere in this section. Skin and eye lesions similar to allergic dermatitis have been reported for cobalt metal and dust. Hematologic, digestive, and,, pulmonary changes due to exposure to cobalt containing dust have also been reported. Cobalt and certain, mostly inorganic compounds of cobalt, have been reported to be carcinogenic in animal studies--human evidence is inadequate. No similar effects have been reported for this organic cobalt based product. Clariant internal exposure guideline: 0.02 mg/m3

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
cobalt oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:

Avoid breathing dust and contact with skin, eyes,and clothing.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
COBALT, METAL DUST AND FUME, AS CO	7440-48-4	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.05 mg/m3
COBALT AND INORGANIC COMPOUNDS, AS CO	7440-48-4	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.02 mg/m3
COBALT, ELEMENTAL, AND INORGANIC COMPOUNDS, AS /CO/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.02 mg/m3

Respiratory protection: None required under normal use. Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Splash-proof or dust-resistant goggles

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: compacted dye

Color: brown

Odor: none

pH: 6.2 - 8.2 (20 °C, 10 g/l)

Solubility in water: 75 g/l (20 °C)

Solubility in water:	100 g/l (60 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: internal test
Skin irritation:	Non-irritating (rabbit) Method: internal test
Eye irritation:	Non-irritating (rabbit) Method: internal test

Section 12 - Ecological information

Product information:

Biodegradation:	app. 50 % (14 d, TOC)
Fish toxicity:	LC50 120 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: ETAD method 103

Section 13 - Disposal considerations

Waste disposal information:
Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled in approved systems.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Cobalt (as an integral part of the dye or pigment molecule)	7440-48-4	< 5 %
Cobalt compound		< 60 %

Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not applicable

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
COBALT COMPOUNDS		< 60 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN. IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION.

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear proper protective equipment. Keep container closed when not in use. Maintain good housekeeping for dust control.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove subject to fresh air. Seek medical assistance.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240 613

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Yellow R p

Substance key: KS6806
Version : 1 - 3 / USA

Revision Date: 11/02/2006
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Yellow R p**
Material number:	101700
Synonyms:	C.I. Acid Yellow 243
Chemical family:	azo dyestuff/cobalt complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Cobalt (as an integral part of the dye or pigment molecule)	7440-48-4	< 5 %
Cobalt compound		< 60 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Cobalt and Compounds of Cobalt (7440-48-4)
Cobalt and Compounds of Cobalt: No chronic effects are known nor have been reported for this compound unless the compound is specifically listed elsewhere in this section. Skin and eye lesions similar to allergic dermatitis have been reported for cobalt metal and dust. Hematologic, digestive, and,, pulmonary changes due to exposure to cobalt containing dust have also been reported. Cobalt and certain, mostly inorganic compounds of cobalt, have been reported to be carcinogenic in animal studies--human evidence is inadequate. No similar effects have been reported for this organic cobalt based product. Clariant internal exposure guideline: 0.02 mg/m3

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
cobalt oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
None known

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:

Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
COBALT, METAL DUST AND FUME, AS CO	7440-48-4	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.05 mg/m3
COBALT AND INORGANIC COMPOUNDS, AS CO	7440-48-4	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.02 mg/m3
COBALT, ELEMENTAL, AND INORGANIC COMPOUNDS, AS /CO/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.02 mg/m3

Respiratory protection: None required under normal use. Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Splash-proof or dust-resistant goggles

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: powder

Color: brown

Odor: none

pH: approx. 7 (20 °C, 10 g/l)

Solubility in water:	75 g/l (20 °C) soluble
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	220 °C Method: isoperibolic decomposition test Heating rate: 0 K/min
Thermal decomposition:	210 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: SANDOZ internal test
Skin irritation:	Non-irritating (rabbit) Method: internal test
Eye irritation:	Non-irritating (rabbit) Method: internal test

Section 12 - Ecological information

Product information:

Biodegradation:	approx. 50 % (14 d, TOC) Method: HOECHST method
Fish toxicity:	LC0 20 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
	LC50 120 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: ETAD method 103

Section 13 - Disposal considerations

Waste disposal information:
Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled in approved systems.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:
This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Cobalt (as an integral part of the dye or pigment molecule)	7440-48-4	< 5 %
Cobalt compound		< 60 %

Clean Water Act:
Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
COBALT COMPOUNDS		< 60 %	

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove subject to fresh air. Seek medical assistance.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

MÜNZING CHEMIE
PERFORMANCE CHEMICALS

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 03/15/2004 Reviewed on 12/05/2002

1 Identification of substance:

· **Product details:**

· **Trade name:** METOLAT CD 1 Münzing Chemie

· **Article number:** 8063
· **Application of the substance / the preparation** Wetting & dispersing agents

· **Manufacturer/Supplier:**
MÜNZING CHEMIE GMBH
Salzstr. 174
D-74076 Heilbronn
Tel.: 07131/987-0
eMail: mc@munzing-chemie.com

· **Information department:** Product safety department.

2 Composition/Data on components:

· **Chemical characterization**
· **Description:** aqueous polyacrylate solution, cationic

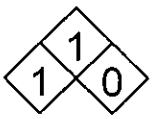
· **Dangerous components:** Void

3 Hazards identification

· **Hazard description:**

Xi Irritant

· **Information pertaining to particular dangers for man and environment**
Irritating to eyes and skin.
· **Classification system**
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
· **NFPA ratings (scale 0-4)**



Health = 1
Fire = 1
Reactivity = 0

4 First aid measures

· **After inhalation**
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing** If symptoms persist consult doctor.

USA

(Contd. on page 2)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 03/15/2004 Reviewed on 12/05/2002

Trade name: METOLAT CD 1 **Münzing Chemie**

(Contd. of page 1)

5 Fire fighting measures

· **Suitable extinguishing agents**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Special hazards caused by the material, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide (CO)
· **Protective equipment:** Do not inhale explosion gases or combustion gases.
· **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· **Person-related safety precautions:**
Particular danger of slipping on leaked/spilled product.
· **Measures for environmental protection:**
Do not allow to enter sewers/ surface or ground water.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

· **Handling**
· **Information for safe handling:** No special precautions are necessary if used correctly.
· **Information about protection against explosions and fires:**
No special measures required.

· **Storage**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment**
· **General protective and hygienic measures**
Immediately remove all soiled and contaminated clothing
Avoid contact with the eyes and skin.
· **Breathing equipment:** Not required.
· **Protection of hands:** Only use chemical-protective gloves with CE-labelling of category III.
· **Material of gloves** Nitrile rubber, NBR
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 3)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 03/15/2004 Reviewed on 12/05/2002

Trade name: METOLAT CD 1 **Münzing Chemie**

(Contd. of page 2)

· **Eye protection:** Tightly sealed goggles.
· **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· **General Information**	
Form:	Fluid
Color:	Yellow-brown
Odor:	Weak, characteristic
· **Change in condition**	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	100°C (212°F)
· **Flash point:**	> 100°C (> 212°F) (DIN 22719)
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Density at 20°C (68°F):**	1.02 g/cm3 (DIN 53217)
· **Solubility in / Miscibility with Water:**	Fully miscible
· **pH-value at 20°C (68°F):**	4.5 (ISO 976)
· **Viscosity: dynamic at 20°C (68°F):**	10 mPas (DIN 53214)
· **Solvent content: Organic solvents:**	0.0 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Dangerous reactions** No dangerous reactions known
· **Dangerous products of decomposition:**
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)

11 Toxicological information

· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

USA

(Contd. on page 4)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 03/15/2004 Reviewed on 12/05/2002

Trade name: METOLAT CD 1 **Münzing Chemie**

(Contd. of page 3)

12 Ecological information:

· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Product:**
· **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **DOT regulations:**
· **Hazard class:** -

· **Land transport ADR/RID (cross-border)**
· **ADR/RID class:** -

· **Maritime transport IMDG:**
· **IMDG Class:** -
· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** -

· **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulations

· **Markings according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
Markings on the basis of internal knowledge

· **Code letter and hazard designation of product:**

Xi Irritant

· **Risk phrases:**
Irritating to eyes and skin.

· **Safety phrases:**
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
After contact with skin, wash immediately with plenty of soap and water
Wear suitable gloves and eye/face protection.

(Contd. on page 5)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 03/15/2004 Reviewed on 12/05/2002

Trade name: METOLAT CD 1 **Münzing Chemie**

(Contd. of page 4)

· **National regulations**

· **Water hazard class:**
Water hazard class 2 (Self-assessment): hazardous for water.
gem. VwVwS v. 17.05.99 Anhang 4 (Nr.3)

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Product safety department.
· **Contact:** Hr. v. Rauch

USA

Material Safety Data Sheet
Methyl Alcohol, 99+%

ACC# 95288

Section 1 - Chemical Product and Company Identification

MSDS Name: Methyl Alcohol, 99+%
Catalog Numbers: AC177150000, AC177150010, AC177150025, AC177150250, AC610400010, AC610401000 AC610401000
Synonyms: Carbinol; Methanol; Methyl hydroxide; Monohydroxymethane; Pyroxylic spirit; Wood alcohol; Wood naptha; Wood spirit; Monohydroxymethane; Methyl hydrate.
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
67-56-1	Methyl alcohol	99.0+	200-659-6

Hazard Symbols: T F
Risk Phrases: 11 23/24/25 39/23/24/25

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 11 deg C. Poison! Cannot be made non-poisonous. Causes eye and skin irritation. May be absorbed through intact skin. This substance has caused adverse reproductive and fetal effects in animals. **Danger! Flammable liquid and vapor.** Harmful if inhaled. May be fatal or cause blindness if swallowed. May cause central nervous system depression. Causes respiratory tract irritation. May cause liver, kidney and heart damage.
Target Organs: Kidneys, heart, central nervous system, liver, eyes.

Potential Health Effects
Eye: Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause painful sensitization to light.
Skin: Causes moderate skin irritation. May be absorbed through the skin in harmful amounts. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis.
Ingestion: May be fatal or cause blindness if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause cardiopulmonary system effects.
Inhalation: Harmful if inhaled. May cause adverse central nervous system effects including headache, convulsions, and possible death. May cause visual impairment and possible permanent

blindness. Causes irritation of the mucous membrane.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Chronic exposure may cause reproductive disorders and teratogenic effects. Laboratory experiments have resulted in mutagenic effects. Prolonged exposure may cause liver, kidney, and heart damage.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Induce vomiting by giving one teaspoon of Syrup of Ipecac.
Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician: Effects may be delayed. Ethanol may inhibit methanol metabolism.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May be ignited by heat, sparks, and flame.
Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. For large fires, use water spray, fog or alcohol-resistant foam. Do NOT use straight streams of water.
Flash Point: 11 deg C (51.80 deg F)
Autoignition Temperature: 464 deg C (867.20 deg F)
Explosion Limits, Lower:6.0 vol %
Upper: 36.00 vol %
NFPA Rating: (estimated) Health: 1; Flammability: 3; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Use water spray to disperse the gas/vapor. Remove all sources of ignition.

Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Keep away from heat, sparks and flame. Avoid breathing vapor or mist.
Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Keep containers tightly closed. Do not store in aluminum or lead containers.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use only under a chemical fume hood.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Methyl alcohol	200 ppm TWA; 250 ppm STEL; skin - potential for cutaneous absorption	200 ppm TWA; 260 mg/m3 TWA 6000 ppm IDLH	200 ppm TWA; 260 mg/m3 TWA

OSHA Vacated PELs: Methyl alcohol: 200 ppm TWA; 260 mg/m3 TWA; 250 ppm STEL; 325 mg/m3 STEL
Personal Protective Equipment
Eyes: Wear chemical goggles.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR §1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear, colorless
Odor: alcohol-like - weak odor
pH: Not available.
Vapor Pressure: 128 mm Hg @ 20 deg C
Vapor Density: 1.11 (Air=1)
Evaporation Rate:5.2 (Ether=1)
Viscosity: 0.55 cP 20 deg C
Boiling Point: 64.7 deg C @ 760.00mm Hg

Freezing/Melting Point:-98 deg C
Decomposition Temperature: Not available.
Solubility: miscible
Specific Gravity/Density:.7910g/cm3
Molecular Formula:CH4O
Molecular Weight:32.04

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: High temperatures, ignition sources.
Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, isocyanates, aliphatic amines, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide).
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, formaldehyde.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 67-56-1: PC1400000
LD50/LC50:
CAS# 67-56-1:
Draize test, rabbit, eye: 40 mg Moderate;
Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, skin: 20 mg/24H Moderate;
Inhalation, rat: LC50 = 64000 ppm/4H;
Oral, mouse: LD50 = 7300 mg/kg;
Oral, rabbit: LD50 = 14200 mg/kg;
Oral, rat: LD50 = 5628 mg/kg;
Skin, rabbit: LD50 = 15800 mg/kg;
Carcinogenicity:
CAS# 67-56-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No data available.
Teratogenicity: Effects on Newborn: Behaviorial, Oral, rat: TDLo=7500 mg/kg (female 17-19 days after conception). Effects on Embryo or Fetus: Fetotoxicity, Inhalation, rat: TCLo=10000 ppm/7H (female 7-15 days after conception). Specific Developmental Abnormalities: Cardiovascular, Musculoskeletal, Urogenital, Inhalation, rat: TCLo=20000 ppm/7H (7-14 days after conception).
Reproductive Effects: Paternal Effects: Spermatogenesis: Intraperitoneal, mouse TDLo=5 g/kg (male 5 days pre-mating). Fertility: Oral, rat: TDLo = 35295 mg/kg (female 1-15 days after conception). Paternal Effects: Testes, Epididymis, Sperm duct: Oral, rat: TDLo = 200 ppm/20H (male 78 weeks pre-mating).
Neurotoxicity: ACGIH cites neuropathy, vision and CNS under TLV basis.
Mutagenicity: DNA inhibition: Human Lymphocyte = 300 mmol/L. DNA damage: Oral, rat = 10 umol/kg. Mutation in microorganisms: Mouse Lymphocyte = 7900 mg/L. Cytogenetic analysis: Oral, mouse = 1 gm/kg.
Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: 29.4 g/L; 96 Hr; LC50 (unspecified) Goldfish: 250 ppm; 11 Hr; resulted in death Rainbow trout: 8000 mg/L; 48 Hr; LC50 (unspecified) Rainbow trout: LC50 = 13-68 mg/L; 96 Hr.; 12 degrees C Fathead Minnow: LC50 = 29400 mg/L; 96 Hr.; 25 degrees C, pH 7.63 Rainbow trout: LC50 = 8000 mg/L; 48 Hr.; Unspecified ria: Phytobacterium phosphoreum: EC50 = 51,000-320,000 mg/L; 30 minutes; Microtox test No data available.
Environmental: Dangerous to aquatic life in high concentrations. Aquatic toxicity rating: TLm 96>1000 ppm. May be dangerous if it enters water intakes. Methyl alcohol is expected to biodegrade in soil and water very rapidly. This product will show high soil mobility and will be degraded from the ambient atmosphere by the reaction with photochemically produced hyroxyl radicals with an estimated half-life of 17.8 days. Bioconcentration factor for fish (golden ide) < 10. Based on a log Kow of -0.77, the BCF value for methanol can be estimated to be 0.2.
Physical: No information available.
Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: CAS# 67-56-1: waste number U154; (Ignitable waste).

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	METHANOL				METHANOL
Hazard Class:	3				3(6.1)
UN Number:	UN1230				UN1230
Packing Group:	II				II
Additional Info:					FLASHPOINT 12C

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 67-56-1 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

Section 302 (RQ)
CAS# 67-56-1: final RQ = 5000 pounds (2270 kg)
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 67-56-1: acute, flammable.
Section 313
This material contains Methyl alcohol (CAS# 67-56-1, 99 0%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
CAS# 67-56-1 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 67-56-1 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
T F
Risk Phrases:
R 11 Highly flammable.
R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R 39/23/24/25 Toxic : danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Safety Phrases:
S 16 Keep away from sources of ignition - No smoking.
S 36/37 Wear suitable protective clothing and gloves.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 7 Keep container tightly closed.

WGK (Water Danger/Protection)
CAS# 67-56-1: 1
Canada - DSL/NDSL
CAS# 67-56-1 is listed on Canada's DSL List.
Canada - WHMIS
This product has a WHMIS classification of B2, D1B, D2B.

Canadian Ingredient Disclosure List
CAS# 67-56-1 is listed on the Canadian Ingredient Disclosure List.
Exposure Limits
CAS# 67-56-1: OEL-ARAB Republic of Egypt:TWA 200 ppm (260 mg/m3);Skin OEL-AUSTRALIA:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL-BELGIUM:TWA 200 ppm (262 mg/m3);STEL 250 ppm;Skin OEL-CZECHOSLOVAKIA:TWA 100 mg/m3;STEL 500 mg/m3 OEL-DENMARK:TWA 200 ppm (260 mg/m3);Skin OEL-FINLAND:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL-FRANCE:TWA 200 ppm (260 mg/m3);STEL 1000 ppm (1300 mg/m3) OEL-GERMANY:TWA 200 ppm (260 mg/m3);Skin OEL-HUNGARY:TWA 50 mg/m3;STEL 100 mg/m3;Skin JAN9 OEL-JAPAN:TWA 200 ppm (260 mg/m3);Skin OEL-THE NETHERLANDS:TWA 200 ppm (260 mg/m3);Skin OEL-THE PHILIPPINES:TWA 200 ppm (260 mg/m3) OEL-POLAND:TWA 100 mg/m3 OEL-RUSSIA:TWA 200 ppm;STEL 5 mg/m3;Skin OEL-SWEDEN:TWA 200 ppm (250 mg/m3);STEL 250 ppm (350 mg/m3);Skin OEL-SWITZERLAND:TWA 200 ppm (260 mg/m3);STEL 400 ppm;Skin OEL-THAILAND:TWA 200 ppm (260 mg/m3) OEL-TURKEY:TWA 200 ppm (260 mg/m3) OEL-UNITED KINGDOM:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 7/21/1999
Revision #4 Date: 8/02/2002

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

MSDS Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

Mallinckrodt CHEMICALS J.T.Baker

24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. and Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

METHYL ETHYL KETONE

MSDS Number: M4628 --- *Effective Date: 09/15/98*

1. Product Identification

Synonyms: 2-Butanone; ethyl methyl ketone; MEK; Methyl acetone
CAS No.: 78-93-3
Molecular Weight: 72.11
Chemical Formula: CH3COCH2CH3
Product Codes:
J.T. Baker: 5385, 5808, 9214, 9319, 9323, Q531
Mallinckrodt: 6206, 6233, 6235, 6240, 6243

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Methyl Ethyl Ketone	78-93-3	99 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. AFFECTS CENTRAL NERVOUS SYSTEM. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

J.T. Baker SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate

Flammability Rating: 4 - Extreme (Flammable)
Reactivity Rating: 2 - Moderate
Contact Rating: 2 - Moderate
Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER
Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:
Causes irritation to the nose and throat. Concentrations above the TLV may cause headache, dizziness, nausea, shortness of breath, and vomiting. Higher concentrations may cause central nervous system depression and unconsciousness.
Ingestion:
May produce abdominal pain, nausea. Aspiration into lungs can produce severe lung damage and is a medical emergency. Other symptoms expected to parallel inhalation.
Skin Contact:
Causes irritation to skin. Symptoms include redness, itching, and pain. May be absorbed through the skin with possible systemic effects.
Eye Contact:
Vapors are irritating to the eyes. Splashes can produce painful irritation and eye damage.
Chronic Exposure:
Prolonged skin contact may defat the skin and produce dermatitis. Chronic exposure may cause central nervous system effects.
Aggravation of Pre-existing Conditions:
Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.

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4. First Aid Measures

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:
Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.
Skin Contact:
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.

---

5. Fire Fighting Measures

Fire:
Flash point: -9C (16F) CC
Autoignition temperature: 404C (759F)

WWW_104(e)_016504

Flammable limits in air % by volume:
lel: 1.4; uel: 11.4
Extremely Flammable.
Explosion:
Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated. Sensitive to static discharge.
Fire Extinguishing Media:
Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. This highly flammable liquid must be kept from sparks, open flame, hot surfaces, and all sources of heat and ignition.

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6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

J. T. Baker SOLUSORB(R) solvent adsorbent is recommended for spills of this product.

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7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

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8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL):
200 ppm (TWA)

-ACGIH Threshold Limit Value (TLV):
200 ppm (TWA), 300 ppm (STEL)
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details. Use explosion-proof equipment.
Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Butyl rubber is a suitable material for personal protective equipment.
Eye Protection:
Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

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9. Physical and Chemical Properties

Appearance:
Clear, colorless liquid.
Odor:
Sharp mint-like odor.
Solubility:
29 g in 100 g of water.
Specific Gravity:
0.81 @ 20C/4C
pH:
No information found.
% Volatiles by volume @ 21C (70F):
100
Boiling Point:
80C (176F)
Melting Point:
-86C (-123F)
Vapor Density (Air=1):
2.5
Vapor Pressure (mm Hg):
78 @ 20C (68F)
Evaporation Rate (BuAc=1):
1.7 (Ether = 1)

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10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Oxidizing materials, caustics, amines, ammonia, strong bases, chloroform, chlorosulfonic acid, oleum, potassium-t-butoxide, heat or flame, hydrogen peroxide, nitric acid. Can attack many plastics, resins and rubber.
Conditions to Avoid:
Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

Toxicological Data:
Oral rat LD50: 2737 mg/kg; inhalation rat LC50: 23,500 mg/m3/8-hr; skin rabbit LD50: 6480 mg/kg; investigated as a mutagen, reproductive effector.
Reproductive Toxicity:
Has shown teratogenic effects in laboratory animals.

--------\Cancer Lists\----------

Ingredient	---NTP Carcinogen--- Known	Anticipated	IARC Category
Methyl Ethyl Ketone (78-93-3)	No	No	None

12. Ecological Information

Environmental Fate:
When released into the soil, this material may leach into groundwater. When released into the soil, this material may evaporate to a moderate extent. When released into water, this material may biodegrade to a moderate extent. When released into water, this material may evaporate to a moderate extent. When released into water, this material is expected to have a half-life between 10 and 30 days. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.
Environmental Toxicity:
This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: ETHYL METHYL KETONE
Hazard Class: 3
UN/NA: UN1193
Packing Group: II
Information reported for product/size: 366LB

International (Water, I.M.O.)

Proper Shipping Name: ETHYL METHYL KETONE
Hazard Class: 3.2
UN/NA: UN1193
Packing Group: II
Information reported for product/size: 366LB

15. Regulatory Information

--------\Chemical Inventory Status - Part 1\--------

Ingredient	TSCA	EC	Japan	Australia
Methyl Ethyl Ketone (78-93-3)	Yes	Yes	Yes	Yes

--------\Chemical Inventory Status - Part 2\--------

Ingredient	Korea	--Canada-- DSL	NDSL	Phil.
Methyl Ethyl Ketone (78-93-3)	Yes	Yes	No	Yes

--------\Federal, State & International Regulations - Part 1\--------

Ingredient	-SARA 302- RQ	TPQ	------SARA 313------ List	Chemical Catg.
Methyl Ethyl Ketone (78-93-3)	No	No	Yes	No

--------\Federal, State & International Regulations - Part 2\--------

Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)
Methyl Ethyl Ketone (78-93-3)	5000	U159	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: Yes
SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No
Reactivity: No (Pure / Liquid)

Australian Hazchem Code: 2[Y]E
Poison Schedule: S5
WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products

Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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16. Other Information

NFPA Ratings: Health: **3** Flammability: **3** Reactivity: **0**
Label Hazard Warning:
DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. AFFECTS CENTRAL NERVOUS SYSTEM. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.
Label Precautions:
Keep away from heat, sparks and flame.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Avoid breathing vapor.
Avoid contact with eyes, skin and clothing.
Label First Aid:
Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases, get medical attention.
Product Use:
Laboratory Reagent.
Revision Information:
MSDS Section(s) changed since last revision of document include: 14.
Disclaimer:
****

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****

Prepared by: Strategic Services Division
Phone Number: (314) 539-1600 (U.S.A.)

MATERIAL SAFETY DATA SHEET

SHELL MSDS: 5060-11 T 10/15/93

METHYL ISOBUTYL KETONE

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE
SHELL: 713-473-9461
CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE
SHELL: 713-241-4819

MANUFACTURER'S NAME AND ADDRESS

SHELL OIL COMPANY
PRODUCT SAFETY & COMPLIANCE
P.O. BOX 4320
HOUSTON, TX 77210

SECTION I NAME

PRODUCT: METHYL ISOBUTYL KETONE
CHEM NAME: 2-PENTANONE,4-METHYL-
CHEM FAMILY: KETONE
SHELL CODE: 31135
31136
31156

HEALTH HAZARD: 3 **FIRE HAZARD:** 3 **REACTIVITY:** 0

SECTION II-A INGREDIENTS

NO.	COMPOSITION	CAS NO.	PERCENT
P	METHYL ISOBUTYL KETONE	108-10-1	100

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LD50
P	2.08 G/KG (RAT)	>20 ML/KG (RABBIT)	2000 PPM/4H (RAT) 0/6 DEATHS
*			4000 PPM/4H (RAT) 6/6 DEATHS

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT:
LIQUID IS SLIGHTLY TO SEVERELY IRRITATING TO THE EYES. VAPORS ARE ALSO IRRITATING.

SKIN CONTACT:

LIQUID IS SLIGHTLY TO MODERATELY IRRITATING TO SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THESKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

INHALATION:
VAPORS ARE MODERATELY TOXIC; MAY PRODUCE CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION. VAPORS MAY ALSO IRRITATE THE UPPER RESPIRATORY TRACT.

INGESTION:
LIQUID IS MODERATELY TOXIC AND MAY BE HARMFUL IF SWALLOWED; MAY PRODUCE CNS DEPRESSION. MAY ALSO CAUSE IRRITATION TO UPPER DIGESTIVE TRACT.

SIGNS AND SYMPTOMS:
IRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS:
PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO METHYL ISOBUTYL KETONE.

OTHER HEALTH EFFECTS:
NONE
FOR A SPANISH TRANSLATION OF THIS MSDS, CALL 1-800-240-MSDS.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

COMP NO.	OSHA PEL/TWA	OSHA PEL/CEILING	ACGIH TLV/TWA	ACGIH TLV/STEL	OTHER
P	50 PPM		50 PPM	75 PPM	75 PPM*

*OSHA PEL/STEL.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT:
FLUSH SKIN WITH WATER WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING OR SHOES UNTIL CLEANED.

INHALATION:
REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICALATTENTION.

INGESTION:
DO NOT GIVE LIQUIDS IF VICTIM IS UNCONSCIOUS OR VERY DROWSY. OTHERWISE, GIVE NO MORE THAN 2 GLASSES OF WATER AND INDUCE VOMITING BYGIVING 30CC (2 TABLESPOONS) SYRUP OF IPECAC.* IF IPECAC IS UNAVAILABLE, GIVE 2 GLASSES OF WATER AND INDUCE VOMITING BY TOUCHING FINGER TO BACK OF VICTIM'S THROAT. KEEP VICTIM'S HEAD BELOW HIPS WHILE VOMITING. GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN:
*NOTE TO THE PHYSICIAN: IF VICTIM IS A CHILD, GIVE NO MORE THAN 1 GLASS OF WATER AND 15 CC (1 TABLESPOON) SYRUP OF IPECAC. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE SHOULD BE CONSIDERED FOLLOWING INTUBATION WITH A CUFFED ENDOTRACHEAL TUBE.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

MALE RATS EXPOSED TO METHYL ISOBUTYL KETONE VAPORS (UP TO 1000 PPM) FOR 90 DAYS SHOWED EVIDENCE OF KIDNEY DAMAGE. THE SIGNIFICANCE OF THIS EFFECT TO MAN IS UNKNOWN.

SECTION VII PHYSICAL DATA

BOILING POINT (DEG F):	SPECFIC GRAVITY (H2O = 1):	VAPOR PRESSURE (MM HG):
241	0.81 @60 DEG F	14.5 @68 DEG F

MELTING POINT (DEG F):	SOLUBILITY IN WATER:	VAPOR DENSITY (AIR = 1):
-118	MODERATE	3.5

VOC: 100% @6.64
LB/GAL @77 DEG F

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1): 1.6

APPEARANCE AND ODOR:
COLORLESS, MOBILE LIQUID. PLEASANT ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: 60 DEG F. (TCC)

FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER: 1.4 UPPER: 7.5

EXTINGUISHING MEDIA:
USE WATER FOG, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:
WARNING. FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE IDENTIFIED

SECTION IX REACTIVITY

STABLITY: STABLE **HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, SPARKS, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION:
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS.IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER A FULL-FACE, ATMOSPHERE-SUPPLYING RESPIRATOR ORAIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES, OR PROLONGED/REPEATED CONTACT WITH SKIN. WEAR CHEMICAL GOGGLES IF THERE IS LIKELIHOOD OF CONTACT WITH EYES. WEAR CHEMICAL RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT. TEST DATA INDICATE THE BEST PROTECTION IS PROVIDED BY POLYVINYL ALCOHOL GLOVES.

ADDITIONAL PROTECTIVE MEASURES:
USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS.AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA BEFORE LAUNDERING.

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES:
WARNING. FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT MUST BE GROUNDED TO PREVENT SPARKING. *** LARGE SPILLS *** EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACEIN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTIONS AS ABOVE.*** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

SECTION XII SPECIAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.
CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM.
WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETICS, OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.
AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA BEFORE LAUNDERING.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
CLASS 3 (FLAMMABLE LIQUIDS), II

DOT PROPER SHIPPING NAME:
METHYL ISOBUTYL KETONE

OTHER REQUIREMENTS:
UN1245, GUIDE 127

SECTION XIV OTHER REGULATORY CONTROLS

THIS PRODUCT IS LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES. PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES. IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ATTACHED ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV STATE REGULATORY INFORMATION

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE LISTED COMPONENT	CAS NO.	PERCENT	STATE CODE
METHYL ISOBUTYL KETONE	108-10-1	100	CA, CT, FL, IL, LA, MA, ME, MN, NJ, PA, RI

CA = CALIFORNIA HAZ. SUBST. LIST; CA65C, CA65R, CA65C/R = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT OF 1986 OR PROPOSITION 65 LIST; CT = CONNECTICUT TOXIC. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.

SECTION XVI SPECIAL NOTES

THIS MSDS REVISION HAS CHANGES IN SECTIONS VI, VII, XV AND THE EDS. A SPANISH TRANSLATION OF THIS MSDS MAY BE OBTAINED BY CALLING 1-800-240-MSDS.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

WE ARE PROVIDING OUR MOST RECENT MATERIAL SAFETY DATA SHEET AND/OR ENVIRONMENTAL DATA SHEET. IF YOU WISH TO RECEIVE UPDATES TO THIS

INFORMATION, PLEASE CALL SHELL'S GENERAL MSDS ASSISTANCE LINE (713-241-4819) TO ENSURE THAT YOU ARE ADDED TO SHELL'S REGULAR MSDS DISTRIBUTION SYSTEM.

BE SAFE. READ OUR PRODUCT SAFETY INFORMATION...AND PASS IT ON. (PRODUCT LIABILITY LAW REQUIRES IT)

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4320
HOUSTON, TX. 77210

ENVIRONMENTAL DATA SHEET

SHELL EDS: 5060-01 10/15/93

METHYL ISOBUTYL KETONE

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE
SHELL: 713-473-9461
CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE
SHELL: 713-241-4819

MANUFACTURER'S NAME AND ADDRESS

SHELL OIL COMPANY
PRODUCT SAFETY & COMPLIANCE
P.O. BOX 4320
HOUSTON, TX 77210

PRODUCT CODE: 31135
31136
31156

SECTION I PRODUCT COMPOSITION

NO.	COMPOSITION	CAS	PERCENT
P	METHYL ISOBUTYL KETONE	108-10-1	100

SECTION II SARA TITLE III INFORMATION

NO.	EHS RQ (*1)	EHS TPQ (*2)	SEC-313 (*3)	313 CATEGORY (*4)	311/312 CATEGORY (*5)
P			YES		H-1, P-3

*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC 302

*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302
*3 = TOXIC CHEMICAL, SEC 313
*4 = CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM
*5 = CATEGORY (FOR AGGREGATE REPORTING REQUIREMENTS UNDER SARA 311, 312)
HEALTH: H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD
H-2 = DELAYED (CHRONIC) HEALTH HAZARD
PHYSICAL: P-3 = FIRE HAZARD
P-4 = SUDDEN RELEASE OF PRESSURE HAZARD
P-5 = REACTIVE HAZARD

SECTION III ENVIRONMENTAL RELEASE INFORMATION

EPA - COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT. UNDER EPA-CERCLA ("SUPERFUND") RELEASES TO AIR, LAND ORWATER WHICH EXCEED THE REPORTABLE QUANTITY MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802.THE REPORTABLE QUANTITY (RQ) FOR THIS PRODUCT IS 5,000 LBS.

SECTION IV RCRA INFORMATION

UNDER EPA - RCRA (40 CFR 261.33), IF METHYL ISOBUTYL KETONE BECOMES A WASTE MATERIAL, IT WOULD BE A HAZARDOUS WASTE, HAZARDOUS WASTENUMBER U161. REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

DATE PREPARED: 10/15/93

SHELL OIL COMPANY
P.O. BOX 4320
HOUSTON, TX 77210

FOR ADDITIONAL INFORMATION ON THIS ENVIRONMENTAL DATA PLEASE CALL
(713) 241-2252

FOR EMERGENCY ASSISTANCE PLEASE CALL
SHELL: (713) 473-9461
CHEMTREC: (800) 424-9300

EXXON CHEMICALS

MATERIAL SAFETY DATA SHEET

EXXON CHEMICAL AMERICAS • P.O. BOX 3272,HOUSTON 77001
A division of EXXON CHEMICAL COMPANY, a division of EXXON CORPORATION

NO. 507

SECTION I PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME
Methyl Isobutyl Ketone

CHEMICAL NAME
4-Methyl-2-Pentanone CAS # 108-10-1

CHEMICAL FAMILY
Ketone

PRODUCT APPEARANCE
Clear colorless liquid with a characteristic pungent odor.

EMERGENCY TELEPHONE NUMBERS: EXXON CHEMICAL AMERICAS 713-870-6000
CHEMTREC 800-424-9300

SECTION II HAZARDOUS COMPONENTS OF MIXTURES

THE PRECISE COMPOSITION OF THIS MIXTURE IS PROPRIETARY INFORMATION. A MORE COMPLETE DISCLOSURE WILL BE PROVIDED TO A PHYSICIAN OR NURSE IN THE EVENT OF A MEDICAL EMERGENCY.

Not applicable for this product.

For additional information see Section III.

SECTION III HEALTH INFORMATION AND PROTECTION

FIRST AID & NATURE OF HAZARD

INHALATION:
Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.
High vapor concentrations are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects.
Low order of toxicity.

EYE CONTACT:
Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.
Irritating, but does not injure eye tissue.

SKIN CONTACT:
Flush with large amounts of water; use soap if available.
Remove grossly contaminated clothing, including shoes, and launder before reuse.
Frequent or prolonged contact may irritate.
Low order of toxicity.

INGESTION:
If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.
Minimal toxicity.
Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

ACUTE TOXICITY DATA IS AVAILABLE UPON REQUEST

CA1058

THIS INFORMATION RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE COMPILED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE. WE DO NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE THAT MAY OCCUR FROM THE USE OF THIS INFORMATION NOR DO WE OFFER WARRANTY AGAINST PATENT INFRINGEMENT.

PERMISSIBLE EXPOSURE LIMIT; OSHA REQUIRES (29CFR1910.1000):
A TWA of 100 ppm (410 mg/m3) for Methyl Isobutyl Ketone.

THRESHOLD EXPOSURE LIMIT; ACGIH RECOMMENDS:
A TWA of 50 ppm (205 mg/m3), and a STEL of 75 ppm (300 mg/m3) for Methyl Isobutyl Ketone.

PERSONAL PROTECTION
For open systems where contact is likely, wear safety glasses with side shields, long sleeves, and chemical resistant gloves.
Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

VENTILATION
The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be stored and handled in a lab hood. Provide mechanical ventilation of confined spaces.
See respiratory protection recommendations.
Use explosion-proof ventilation equipment.

SECTION IV FIRE & EXPLOSION HAZARD

FLASHPOINT DEG. F : 63 METHOD: TCC
FLAMMABLE LIMITS-LEL: 1.2 UEL: 8.0
AUTOIGNITION TEMPERATURE DEG. F : 858

GENERAL HAZARD
Flammable Liquid, can release vapors that form flammable mixtures at temperatures at or above the flashpoint.
Empty product containers may contain product residue. Do not pressurize, cut, heat, weld or expose containers to flame or other sources of ignition.

FIRE FIGHTING
Use water spray to cool fire exposed surfaces and to protect personnel.
Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors.
Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam.
Avoid spraying water directly into storage containers due to danger of boilover.

HAZARDOUS COMBUSTION PRODUCTS
No unusual

SECTION V SPILL CONTROL PROCEDURE

LAND SPILL
Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is an EPA hazardous substance (See Section X, Page 4) notify the

U.S. EPA if appropriate.
Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust.
Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent.
Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

WATER SPILL

Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-confined waters.
Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

SECTION VI NOTES

CAS NUMBER: 000108101

EXXON CHEMICALS

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Methyl Isobutyl Ketone

NO. 507

SECTION VII TYPICAL PHYSICAL & CHEMICAL PROPERTIES

SP. GRAVITY REF. TEMP.,° F 0.8 @ 59.9 TO 59.9	VAPOR PRESSURE, mmHg at ° F 0.75 @ 50
SOLUBILITY IN WATER, WT. % at ° F 2 @ 68	VISCOSITY OF LIQUID, cST at ° F 0.7 @ 68
SP. GRAVITY OF VAPOR, at 1 ATM AIR=1 3.45	FREEZING MELTING POINT/RANGE,° F -119.2
EVAPORATION RATE, n-BU ACETATE=1 1.7	BOILING POINT/RANGE,° F 236.84 to 242.96

SECTION VIII REACTIVITY DATA

STABILITY? Stable	HAZARDOUS POLYMERIZATION OCCUR? Will not occur
CONDITIONS TO AVOID INSTABILITY Not Applicable	CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION Not Applicable

MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY
Caustic, amines, alkanolamines, aldehydes, ammonia, strong oxidizing agents, and chlorinated compounds.

HAZARDOUS DECOMPOSITION PRODUCTS
None

SECTION IX TRANSPORT & STORAGE

ELECTROSTATIC ACCUMULATION HAZARD
No, but use proper grounding procedure

STORAGE TEMPERATURE,° F Ambient	LOADING/UNLOADING TEMPERATURE,° F Ambient
STORAGE/TRANSPORT PRESSURE, mmHg Atmospheric	VISCOSITY AT LOADING/UNLOADING TEMPERATURE,cST 0.7 @ 68

SECTION X HAZARD CLASSIFICATION

U.S. DOT CLASSIFICATION Flammable liquid	EPA HAZARDOUS SUBSTANCE Methyl isobutyl ketone	AMOUNT LBS. 5000

OTHER

REFERENCE NUMBER	DATE PREPARED	SUPERCEDES ISSUE DATE
HDHA-C-00027	MAY 23, 1985	MAY 17, 1985

FOR ADDITIONAL PRODUCT INFORMATION CONTACT YOUR TECHNICAL SALES REPRESENTATIVE
FOR ADDITIONAL HEALTH/SAFETY INFORMATION CALL 713-870-6885

007300

21-178-e

Shell

MATERIAL SAFETY DATA SHEET

MSDS NUMBER ▶ 5,060-7 PAGE 1

97367 (4-85)

24 HOUR EMERGENCY ASSISTANCE	GENERAL MSDS ASSISTANCE
SHELL: 713-473-9461 CHEMTREC: 800-424-9300	SHELL: 713-241-4819

ACUTE HEALTH *	FIRE	REACTIVITY	HAZARD RATING ▶ LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4
3	3	0	

*For acute and chronic health effects refer to the discussion in Section III

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION ... AND PASS IT ON
(PRODUCT LIABILITY LAW REQUIRES IT)

SECTION I

	NAME
PRODUCT ▶	METHYL ISOBUTYL KETONE
CHEMICAL NAME ▶	2-PENTANONE,4-METHYL-
CHEMICAL FAMILY ▶	KETONE
SHELL CODE ▶	31135

SECTION II-A — PRODUCT/INGREDIENT COMPOSITION

NO.		CAS NUMBER	PERCENT
P	METHYL ISOBUTYL KETONE	108-10-1	100

SECTION II-B — ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P *	2.08 G/KG (RAT)	>20 ML/KG (RABBIT)	2000 PPM/4H (RAT) 0/6 DEATHS 4000 PPM/4H (RAT) 6/6 DEATHS

SECTION III — HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT
LIQUID IS SLIGHTLY TO SEVERELY IRRITATING TO THE EYES. VAPORS ARE ALSO IRRITATING.

SKIN CONTACT
LIQUID IS SLIGHTLY TO MODERATELY IRRITATING TO SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

INHALATION
VAPORS ARE MODERATELY TOXIC; MAY PRODUCE CNS DEPRESSION. VAPORS MAY ALSO IRRITATE THE UPPER RESPIRATORY TRACT.

INGESTION
LIQUID IS MODERATELY TOXIC AND MAY BE HARMFUL IF SWALLOWED; MAY PRODUCE CNS DEPRESSION. MAY ALSO CAUSE IRRITATION TO UPPER DIGESTIVE TRACT.

SIGNS AND SYMPTOMS
IRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS
PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO METHYL ISOBUTYL KETONE.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

	OSHA		ACGIH		OTHER
NO.	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
P	50 PPM		50 PPM	75 PPM	75 PPM*

*OSHA EPL/STEL.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT
FLUSH SKIN WITH WATER WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING OR SHOES UNTIL CLEANED.

INHALATION
REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

INGESTION
DO NOT GIVE LIQUIDS IF VICTIM IS UNCONSCIOUS OR VERY DROWSY. OTHERWISE, GIVE NO MORE THAN 2 GLASSES OF WATER AND INDUCE VOMITING BY GIVING 30CC (2 TABLESPOONS) SYRUP OF IPECAC.* IF IPECAC IS UNAVAILABLE, GIVE 2 GLASSES OF WATER AND INDUCE VOMITING BY TOUCHING FINGER TO BACK OF VICTIM'S THROAT. KEEP VICTIM'S HEAD BELOW HIPS WHILE VOMITING. GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN
*NOTE TO THE PHYSICIAN: IF VICTIM IS A CHILD, GIVE NO MORE THAN 1 GLASS OF WATER AND 15 CC (1 TABLESPOON) SYRUP OF IPECAC. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE SHOULD BE CONSIDERED FOLLOWING INTUBATION WITH A CUFFED ENDOTRACHEAL TUBE.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

ALTHOUGH THE SIGNIFICANCE TO HUMANS IS UNKNOWN, IN MALE RATS EXPOSED BY INHALATION TO VAPORS (UP TO 1000 PPM) FOR 90 DAYS, EVIDENCE OF SLIGHT KIDNEY DAMAGE WAS OBSERVED.

SECTION VII PHYSICAL DATA

BOILING POINT: 241 (DEG F)

SPECIFIC GRAVITY: 0.81 (H2O=1) (60 DEG F.)

VAPOR PRESSURE: 15 AT 68 (MM HG) DEG F.

MELTING POINT: -118 (DEG F)

SOLUBILITY: (IN WATER) MODERATE

VAPOR DENSITY: 3.5 (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): 1.6

APPEARANCE AND ODOR:
COLORLESS, MOBILE LIQUID. PLEASANT ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
60 DEG F. (TCC)

FLAMMABLE LIMITS /% VOLUME IN AIR
LOWER: 1.4 UPPER: 7.5

EXTINGUISHING MEDIA
USE WATER FOG, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS
WARNING. FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

SECTION IX REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, SPARKS, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS.IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER A FULL-FACE, ATMOSPHERE-SUPPLYING RESPIRATOR OR AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

OSHA HAS ESTABLISHED TRANSITIONAL OCCUPATIONAL EXPOSURE LIMITS FOR THIS PRODUCT AND/OR COMPONENTS OF THIS PRODUCT. REFER TO 29 CFR 1910.1000 FOR THESE TRANSITIONAL LIMITS AND REQUIREMENTS FOR MEETING THESE LIMITS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES, OR PROLONGED/REPEATED CONTACT WITH SKIN. WEAR CHEMICAL GOGGLES IF THERE IS LIKELIHOOD OF CONTACT WITH EYES. WEAR CHEMICAL RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT. TEST DATA INDICATE THE BEST PROTECTION IS PROVIDED BY POLYVINYL ALCOHOL GLOVES.

ADDITIONAL PROTECTIVE MEASURES
USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS.AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA BEFORE LAUNDERING.

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES
WARNING. FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT MUST BE GROUNDED TO PREVENT SPARKING. *** LARGE SPILLS *** EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE: DISPOSE OF FLUSH SOLUTIONS AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

SECTION XII SPECIAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.

CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
FLAMMABLE LIQUID

D.O.T. PROPER SHIPPING NAME:
FLAMMABLE LIQUID, N.O.S.

OTHER REQUIREMENTS:
UN1993. GUIDE SHEET 26.

SECTION XIV OTHER REGULATORY CONTROLS

THIS PRODUCT IS LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE EDS SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV SPECIAL NOTES

THE OCCUPATIONAL EXPOSURE LIMITS (SECTION IV) AND/OR THE RESPIRATORY PROTECTION PRECAUTIONS (SECTION X) HAVE BEEN REVISED.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: JULY 17, 1989

J. C. WILLETT

BE SAFE

READ OUR PRODUCT
SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW
REQUIRES IT)

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4320
HOUSTON, TX 77210

ENVIRONMENTAL DATA SHEET

Shell

EDS NUMBER ▶ 5,060

97449 (9-87)

PRODUCT ▶	METHYL ISOBUTYL KETONE
PRODUCT CODE ▶	31135

SECTION I — PRODUCT/COMPOSITION

NO.	COMPONENT	CAS NUMBER	PERCENT
P	METHYL ISOBUTYL KETONE	108-10-1	100

SECTION II — SARA TITLE III INFORMATION

NO.	EHS RQ (LBS) (*1)	EHS TPQ (LBS) (*2)	SEC 313 (*3)	313 CATEGORY (*4)	311/312 CATEGORIES (*5)
P			YES		H-1, P-3

FOOTNOTES

*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC.302
*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302
*3 = TOXIC CHEMICAL, SEC 313
*4 = CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM
*5 = HAZARD CATEGORY FOR SARA SEC. 311/312 REPORTING
HEALTH H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD H-2 = DELAYED (CHRONIC) HEALTH HAZARD
PHYSICAL P-3 = FIRE HAZARD P-4 = SUDDEN RELEASE OF PRESSURE HAZARD
P-5 = REACTIVE HAZARD

SECTION III — ENVIRONMENTAL RELEASE INFORMATION

EPA - COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT. UNDER EPA-CERCLA ("SUPE
RELEASES TO AIR, LAND OR WATER WHICH EXCEED THE REPORTABLE QUANTITY MUST BE REPORTED TO THE NATIONAL
RESPONSE CENTER, 800-424-8802.

THE REPORTABLE QUANTITY (RQ) FOR THIS PRODUCT IS 5,000 LBS., WHICH IS BASED ON THE PRESENCE OF COMPO

SECTION IV — RCRA INFORMATION

UNDER EPA - RCRA (40 CFR 261.33), IF METHYL ISOBUTYL KETONE BECOMES A WASTE MATERIAL, IT WOULD BE A
HAZARDOUS WASTE, HAZARDOUS WASTE NUMBER U161. REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PR
DISPOSAL.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: MAY 02, 1988

SHELL OIL COMPANY
ENVIRONMENTAL AFFAIRS
P. O. BOX 4320
HOUSTON, TX 77210

FOR ADDITIONAL INFORMATION ON THIS ENVIRONMENTAL DATA PLEASE CALL
(713) 241-2252

FOR EMERGENCY ASSISTANCE PLEASE CALL
SHELL: (713) 473-9461
CHEMTREC: (800) 424-9300

MATERIAL SAFETY DATA SHEET

MANUFACTURER: TAYLOR TECHNOLOGIES, INC
31 LOVETON CIRCLE
SPARKS, MD 21152
TELEPHONE: 410-472-4340

1. PRODUCT IDENTIFICATION

CATALOG NO.: R-0637
PRODUCT NAME: Methyl Orange Indicator
CHEMICAL FAMILY: Organic dye solution

2. INGREDIENTS

INGREDIENT	CAS NO.	%	NATURE OF HAZARD
Dimethylaminobenzene diazosulfonic acid (methyl orange)	547-58-0	<1	Irritant
Deionized water	7732-18-5	to 100	None

3. PHYSICAL/CHEMICAL CHARACTERISTICS

STATE: Liquid APPEARANCE: Clear, orange ODOR: None
BOILING PT (F): 212 pH: 8.5 SPECIFIC GRAVITY: 1
VAPOR PRESSURE (mm Hg): 17 VAPOR DENSITY (AIR=1): .6
PERCENT VOLATILE BY VOLUME: 99 SOLUBILITY IN WATER: Soluble

4. FIRE, EXPLOSION HAZARD AND REACTIVITY DATA

FLASH PT: NA METHOD: NA
FLAMMABLE LIMITS: LEL: NA UEL: NA
EXTINGUISHING MEDIA: NA
SPECIAL PROCEDURES: Wear self-contained (positive pressure if available) breathing apparatus and full-protective clothing
FIRE/EXPLOSION HAZARDS AND HAZARDOUS DECOMPOSITION PRODUCTS: May emit toxic fumes of sulfur oxides, carbon oxides, nitrogen oxides.
NFPA CODE: Health: 0 Flammability: 0 Reactivity: 0 Specific: NA
CONDITIONS TO AVOID: Extreme heat, temperatures.

5. HEALTH HAZARD DATA

INGREDIENT: NA
TOXICITY: NA
PEL: NA TLV: NA
STEL: NE

ROUTE(S) OF ENTRY: Inhalation Ingestion X Skin X
TARGET ORGAN(S): Eyes, skin
CARCINOGENICITY: NTP No IARC No OSHA No
HEALTH HAZARDS AND SYMPTOMS OF EXPOSURE:
EYES: Irritant
SKIN: Irritant. Contact may cause staining.
INGESTION: Irritant. May cause gastrointestinal irritation.
INHALATION: NA
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye and skin conditions

6. PRECAUTIONARY MEASURES
PROTECTIVE EQUIPMENT: General purpose gloves, safety glasses, lab coat
HANDLING: Avoid contact with eyes, skin, and clothing. Avoid breathing chemical. Wash thoroughly after handling.
STORAGE: Cool, dry area. Avoid direct sunlight.

7. EMERGENCY AND FIRST AID PROCEDURES
EYE AND SKIN CONTACT: Immediately flush eyes with water for 15 minutes. Call physician. Wash skin thoroughly with soap and water.
INGESTION: Give large amounts of water. Call physician. Induce vomiting under direction of physician.
INHALATION: NA

8. SPILL AND DISPOSAL PROCEDURES
SPILL OR RELEASE: Absorb with vermiculite or other inert material. Containerize for later disposal.
DISPOSAL: Incineration or other method to comply with all local,-state, and federal regulations.

NA = Not applicable
ND = Not determined
NE = Not established

This Material Safety Data Sheet has been prepared in accordance with 29 CFR Part 1910.1200 and contains information believed to be accurate and complete at the date of preparation. However, no warranty is expressed or implied. Advice given under "Spill and Disposal Procedures" assumes compliance with federal, state, and local regulations regarding the disposal of hazardous waste.

DATE PREPARED: May 1996

Spray Finish Inv (01-INV000)

EASTMAN CHEM PRODUCTS A SUB OF -- EASTMAN MPK (METHYL PROPYL KETONE) (MPK)

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MSDS Safety Information

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FSC: 6810
NIIN: 01-459-1990
MSDS Date: 06/18/1999
MSDS Num: CJKXL
Product ID: EASTMAN MPK (METHYL PROPYL KETONE)
MFN: 01
Responsible Party
Cage: 74364
Name: EASTMAN CHEM PRODUCTS A SUB OF EASTMAN KODAK CO
Address: WILCOX DR AND LINCOLN ST
Box: 431
City: KINGSPORT TN 37662
Info Phone Number: 615-229-6094/2000
Emergency Phone Number: 1-800-EASTMAN
Resp. Party Other MSDS No.: 100000451/F/USA

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Item Description Information

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Item Manager: S9G
Item Name: METHYL PROPYL KETON
Specification Number: NONE
Type/Grade/Class: NONE
Unit of Issue: CN
Quantitative Expression: 00000000005GL
UI Container Qty: 0
Type of Container: CAN

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Ingredients

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Cas: 107-87-9
RTECS #: SA7875000
Name: METHYL PROPYL KETONE
Percent by Wt: 94.5
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 700 MG/M3;200 PPM
OSHA STEL: 250 PPM
ACGIH TLV: 705 MG/M3;200 PPM
ACGIH STEL: 881 MG/M3;250 PPM

Cas: 108-10-1
RTECS #: SA9275000
Name: METHYL ISOBUTYL KETONE
Percent by Wt: 5.5
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 410 MG/M3;100 PPM
ACGIH TLV: 205 MG/M3;50 PPM
ACGIH STEL: 307 MG/M3;75 PPM
EPA Rpt Qty: 5000 LBS
DOT Rpt Qty: 5000 LBS

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Health Hazards Data

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LD50 LC50 Mixture: LD50 (ORAL, RAT) 3.73 G/KG
Carcinogenicity Inds - NTP: NO
IARC: NO
OSHA: NO

Effects of Exposure: GENERAL: BASED ON ANIMAL DATA AND STRUCTURE-ACTIVITY RELATIONSHIPS, THIS PRODUCT IS NOT EXPECTED TO CAUSE NERVOUS SYSTEM DAMAGE. INHALATION: HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS AND IRRIT ATION. EYES: HIGH VAPOR CONCENTRATIONSMAY CAUSE IRRITATION. SKIN : EXPECTED TO BE A LOW HAZARD FOR USUAL INDUSTRIAL OR COMMERCIAL HANDLING BY TRAINED PERSONNEL. INGESTION: EXPECTED TO BE A LOW INGES TION HAZARD.

Explanation Of Carcinogenicity: NONE

Signs And Symptions Of Overexposure: INHALATION: HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS AND IRRITATION. ` EYES: HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION.

First Aid: INHALATION: MOVE TO FRESH AIR. TREAT SYMPTOMATICALLY. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST. EYES: IN CASE OF IRRITATION FROM AIRBORNE EXPOSURE, MOVE TO FRESH AIR. IF EASY TO DO, REMOVE CONTACT L ENSES. GET MEDICAL ATTENTION IF SYMPTOMSPERSIST. SKIN: WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR. INGESTION: SEEK MEDICAL ADVICE.

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Handling and Disposal

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Spill Release Procedures: USE PERSONAL PROTECTIVE EQUIPMENT. ELIMINATESE ALL IGNITION SOURCES. ABSORB SPILL WITH VERMICULITE OR OTHER INERT MATERIAL, THEN PLACE IN A CONTAINER FOR CHEMICAL WASTE. FOR LARGE SPILLS: USE WATER SP RAY TO DISPERSE VAPORS AND DILUTE SPILLTO A NONFLAMMABLE MIXTURE. PREVENT RUNOFF FROM ENTERING DRAINS, SEWERS, OR STREAMS.

Waste Disposal Methods: DISCHARGE, TREATMENT, OR DISPOSAL MAY BE SUBJECT TO NATIONAL, STATE, OR LOCAL LAWS. MIX WITH COMPATIBLE CHEMICAL WHICH IS LESS FALMMABLE AND INCINERATE. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUE , FOLLOW LABEL WARNINGS EVEN AFTER CONTAINER IS EMPTIED. RESIDUAL VAPORS MAY EXPLODE ON IGNITION; DO NOT CUT, DRILL, GRIND/WELD ON OR NEAR CONTAINER.

Handling And Storage Precautions: KEEP CONTAINER TIGHTLY CLOSED. KEEP CONTAINER IN A WELL-VENTILATED PLACE. KEEP AWAY FROM HEAT, SPARKS, AND FLAME. KEEP FROM CONTACT WITH OXIDIZING MATERIALS. USE ONLY WITH ADEQUATE VENTILATION. COMPLY WITH ALL NATIONAL, STATE, AND LOCAL CODES PERTAINING TO STORAGE AND HANDLING OF FLAMMABLE LIQUIDS.

Other Precautions: AVOID BREATHING HIGH VAPOR CONCENTRATIONS. USE ONLY WITH ADEQUATE VENTILATION.

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Fire and Explosion Hazard Information

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Flash Point Method: TCC

Flash Point: =7.8C, 46.F

Autoignition Temp: =448.9C, 840.F

Lower Limits: (93F):1.56%

Upper Limits: (144F):8.7%

Extinguishing Media: WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE (CO_2), ALCOHOL FOAM

Fire Fighting Procedures: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. USE WATER SPRAY TO KEEP FIRE-EXPOSED CONTAINERS COOL. WATER MAY BE INEFFECTIVE IN FIGHTING THE FIRE.

Unusual Fire/Explosion Hazard: FLAMMABLE. VAPORS MAY CAUSE A FLASH FIRE OR IGNITE EXPLOSIVELY. VAPORS MAY TRAVEL CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. PREVENT BUILDING OF VAPORS OR GASES TO EXPLOSIVE CONC ENTRATIONS.

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Control Measures

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Respiratory Protection: IF ENGINEERING CONTROLS DO NOT MAINTAIN AIRBORNE CONCENTRATIONS BELOW RECOMMENDED EXPOSURE LIMITS, AN APPROVED RESPIRATOR MUST BE WORN: RESPIRATOR TYPE: ORGANIC VAPOR. IF RESPIRATORS ARE USED, A PROG RAM SHOULD BE INSTITUTED TO ASSURE COMPLIANCE WITH OSHA STANDARD 63 FR 1152, JAN 8, 1998.

Ventilation: GOOD GENERAL VENTILATION (TYPICALLY 10 AIR CHANGES PER HOUR) SHOULD BE USED. USE PROCESS ENCLOSURES, LOCAL EXHAUST VENTILATION OR OTHER CONTROLS.
Protective Gloves: IT IS A GOOD INDUSTRIAL HYGIENE PRACTICE TO MINIMIZE SKIN CONTACT.
Eye Protection: IT IS A GOOD INDUSTRIAL HYGIENE PRACTICE TO MINIMIZE EYE CONTACT.
Other Protective Equipment: EYE BATH, WASHING FACILITIES.
Supplemental Safety and Health: PRODUCT ID NUMBER: SPC 19010. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUE, FOLLOW LABEL WARNINGS EVEN AFTER CONTAINER IS EMPTIED. RESIDUAL VAPORS MAY EXPLODE ON IGNITION; DO NOT CUT, DRILL GRI ND, OR WELD ON OR NEAR THIS CONTAINER.

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Physical/Chemical Properties

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HCC: F2
Boiling Point: =100.6C, 213.F
Melt/Freeze Pt: =-77.8C, -108.F
Vapor Pres: AT20C (68F)37BAR(27.8MMHG
Vapor Density: (AIR=1)2.9
Spec Gravity: AT 20C (68F)(H20=1):0.81
Evaporation Rate & Reference: (N-BUTYL ACETATE=1):2.3
Solubility in Water: MODERATE
Appearance and Odor: COLORLESS LIQUID - KETONE ODOR

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Reactivity Data

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Stability Indicator: YES
Materials To Avoid: MATERIAL CAN REACT VIOLENTLY WITH STRONG BASES, STRONG OXIDIZING AGENTS, STRONG REDUCING AGENTS.
Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE
Hazardous Polymerization Indicator: NO
Conditions To Avoid Polymerization: WILL NOT OCCUR.

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Toxicological Information

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Toxicological Information: INHALATION LC-50 (RAT): >2000 PPM/4 HOURS. DERMAL LD-50 (RABBIT): 8 ML/KG. SKIN IRRITATION (GUINEA PIG): 8 ML/KG. REPEATED SKIN IRRITATION (GUINEA PIG): SLIGHT IRRITATION. EYE IRRITATION (RABBIT): SLI GHT. SUBCHRONIC TOXICITY DATA FOR METHYL PROPYL KETONE: NO-OBSERVED-EFFECT LEVEL (NOEL) FOR NEUROTOXICITY = 305 PPM (ONLY CONCENTRATION TESTED). ORAL STUDY (10 MONTHS, RAT): LOWEST-OBSERVED-EFFECT LEV EL (LOEL) = 1% IN DRINKING WATER (REDUCED BODY WEIGHT GAIN); NOEL = 0.5% IN DRINKING WATER.

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Ecological Information

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Ecological: IT HAS THE FOLLOWING PROPERTIES: A HIGH BIOCHEMICAL OXYGEN DEMAND AND A POTENTIAL TO CAUSE OXYGEN DEPLETION IN AQUEOUS SYSTEMS, A LOW POTENTIAL TO AFFECT AQUATIC ORGANISMS, A HIGH POTENTIAL TO BIODEGR ADE (LOW PERSISTANCE) WITH UNACCLIMATEDMICROORGANISMS FROM ACTIVATED SLUDGE. WHEN DILUTED WITH A LARGE AMOUNT OF WATER, THIS MATERIAL RELEASED DIRECTLY OR INDIRECTLY INTO THE ENVIRONMENT IS NOT EXPECT ED TO HAVE A SIGNIFICANT IMPACT. OXYGEN DEMAND DATA: THOD=2.6 G OXYGEN/G. COD=1.8 G OXYGEN/G. BOD-5=1.38 G OXYGEN/G. BOD-20=1.8 G OXYGEN/G.

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MSDS Transport Information

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Transport Information: DOT (USA) STATUS: REGULATED. CLASS 3, PACKING GROUP II. IAR (INTERNATIONAL CIVIL AVIATION ORGANIZATION) ICAO. ICAO STATUS: REGULATED. CLASS 3, PACKING GROUP II. SEA- INTERNATIONAL MARITIME DANGEROUS G OODS

(IMDG). IMDG STATUS: REGULATED. CLASS 3.2, PACKING GROUP II.

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Regulatory Information

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Sara Title III Information: CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) OF 1986 AND 40 CFR PART 372: METHYL ISOBUTYL KETONE. SARA (U.S.A .) SECTION 311 AND 312 HAZARD CLASSIFICATION: FIRE HAZARD, IMMEIDATE (ACUTE) HEALTH HAZARD.

Federal Regulatory Information: US TOXIC SUBSTANCE CONTROL ACT (TSCA): ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TOXIC SUBSTANCE CONTROL ACT (TSCA) INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.

State Regulatory Information: CA PROPOSITION PROPOSITION 65: NONE KNOWN TO EASTMAN.

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Other Information

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Other Information: CANADIAN ENVIRONMENT PROTECTION ACT & DOMESTIC SUBSTANCE LIST: ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE DSL. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING. -EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES: ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON EINECS. -AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES & NATIONAL INDUSTRIAL CHEMICAL NOTIFICATION & ASSESSMENT SCHEME: ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON AICS OR OTHERWISE COMPLY WITH NICNAS.

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Transportation Information

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Responsible Party Cage: 74364
Trans ID NO: 147598
Product ID: EASTMAN MPK (METHYL PROPYL KETONE)
MSDS Prepared Date: 06/18/1999
Review Date: 12/05/1999
MFN: 1
Net Unit Weight: 33.7 LBS
Multiple KIT Number: 0
Review IND: Y
Unit Of Issue: CN
Container QTY: 0
Type Of Container: CAN
Additional Data: DOT, IMO, IATA PROPER SHIPPING NAME, UN ID NUMBER, HAZARD CLASS AND PACKING GROUP PER MSDS AND TECHN ICAL SUPPORT. CARGO AIRCRAFT ONLY

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Detail DOT Information

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DOT PSN Code: JPW
DOT Proper Shipping Name: METHYL PROPYL KETONE
Hazard Class: 3
UN ID Num: UN1249
DOT Packaging Group: II
Label: FLAMMABLE LIQUID
Special Provision: T1
Packaging Exception: 150
Non Bulk Pack: 202
Bulk Pack: 242
Max Qty Pass: 5 L
Max Qty Cargo: 60 L
Vessel Stow Req: B

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Detail IMO Information

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IMO PSN Code: KCF
IMO Proper Shipping Name: METHYL PROPYL KETONE
IMDG Page Number: 3261
UN Number: 1249
UN Hazard Class: 3.2
IMO Packaging Group: II
Subsidiary Risk Label: -
EMS Number: 3-07
MED First Aid Guide NUM: 300
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Detail IATA Information
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IATA PSN Code: RFR
IATA UN ID Num: 1249
IATA Proper Shipping Name: METHYL PROPYL KETONE
IATA UN Class: 3
IATA Label: FLAMMABLE LIQUID
UN Packing Group: II
Packing Note Passenger: 305
Max Quant Pass: 5L
Max Quant Cargo: 60L
Packaging Note Cargo: 307
==========
Detail AFI Information
==========
AFI PSN Code: RFR
AFI Proper Shipping Name: METHYL PROPYL KETONE
AFI Hazard Class: 3
AFI UN ID NUM: UN1249
AFI Packing Group: II
Special Provisions: P5
Back Pack Reference: A7.3
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HAZCOM Label
==========
Product ID: EASTMAN MPK (METHYL PROPYL KETONE)
Cage: 74364
Company Name: EASTMAN CHEM PRODUCTS A SUB OF EASTMAN KODAK CO
Street: EASTMAN ROAD
City: KINGSPORT TN
Zipcode: 37662
Health Emergency Phone: 1-800-EASTMAN
Label Required IND: Y
Date Of Label Review: 12/05/1999
Status Code: C
Label Date: 01/20/1999
Year Procured: 1999
Origination
Chronic Hazard IND: Y
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: DANGER
Respiratory Protection IND: YES
Health Hazard: Moderate
Contact Hazard: Slight
Fire Hazard: Severe
Reactivity Hazard: None
Hazard And Precautions: TARGET ORGANS: EYES, SKIN, RESPIRATORY SYSTEM, LIVER, KIDNEYS, CNS (NIOSH). WARNING! FLAMMABLE LIQUID AND VAPOR. HIGH VAPOR

CONCENTRATIONS MAY CAUSE DROWSINESS AND IRRITATION OF EYES OR RESPIRATORY TR ACT. KEEP CONTAINER TIGHTLY CLOSED, AWAYFROM HEAT, SPARKS, AND FLAME. AVOID BREATHING HIGH VAPOR CONCENTRATIONS. USE ONLY WITH ADEQUATE VENTILATION. FIRST AID: IF INHALED, MOVE TO FRESH AIR. GET MEDIC AL ATTENTION IF SYMPTOMS PERSIST. IN CASE OF EYE IRRITATION, MOVE TO FRESH AIR.GET MEDICAL ATTENTION IF SYMPTOMS PERSIST. USE WATER SPRAY, CO2, ALCOHOL FOAM FOR FIRE. IN CASE OF SPILL: REMOVE IGNITION SOURCES. DISPERSE VAPORS WITH WATER.

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Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever expressly or implied warrants, states, or intends said information to have any application, use or viability by or to any person or persons outside the Department of Defense nor any person or persons contracting with any instrumentality of the United States of America and disclaims all liability for such use. Any person utilizing this instruction who is not a military or civilian employee of the United States of America should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense or other government situation.

MATERIAL SAFETY DATA SHEET

Broadmoor Products Incorporated
2547 Three Mile Rd NW #B
Grand Rapids MI 49544

Phone: (616) 285-6440
FAX : (616) 285-5503

Product.....> **MG-1242**

Section: 1 Material Identification

Chemical Family.....	proprietary chelation blend
DOT Ship Name.....	Compound, Boiler Preserving
DOT Hazard Class.....	Not Regulated (ITEM 50093 SUB 2)
Date Prepared.....	May 17, 2001

Section: 2 Ingredient and Hazards

CAUTION: slightly corrosive to skin & eye

Ingredients	Percent	Limits(TLV)
sodium sulfite CAS(7757-83-7)	< 9	not established
acrylic terpolymer(Trade secret)	< 6	not established
ethylenediaminetetra-acetic acid tetrasodium salt CAS(64-02-8)	< 10	not established
sodium hydroxide CAS(1310-73-2)	< 1	2 mg/m^3

Section: 3 Physical Data

Boiling Point.....	>215 deg F
Specific Gravity.....	1.1415
Vapor Pressure.....	<10 mm Hg 68 F
Evaporation Rate.....	1.0 (Water=1)
Vapor Density.....	>1.0 (AIR=1)
Measured pH (neat)....	11.5 - 12.0
Appearance.....	light amber liquid
Odor.....	mild odor

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1242**

Section: 4 Fire and Explosion Data

Flash Point,F,COC.....	not combustible
Flammable Limits.....	LEL: n/a UEL: n/a
Auto Ignition Temp....	n/a
Extinguishing Media...	water, carbon dioxide, dry or foam
Special Procedures....	use SCBA with full face shield
Unusual Fire Hazards..	none

Section: 5 Health Hazard Data

Threshold Limit Value..	not established
Carcinogen.....	no
*** ROUTES OF EXPOSURE ***	**EYE & DERMAL**
Eye Contact.....	prolonged contact may cause moderate to severe chemical burns. Flush promptly.
Skin Contact.....	may cause irritation. Flush promptly.
Inhalation.....	heavy mist may be irritating to mucous membranes of the nose, throat and lungs.
Oral.....	may be irritating to the mouth, throat and gastrointestinal system.
*** EMERGENCY FIRST AID ***	
Eyes.....	flush with water 15 minutes, seek medical attention.
Skin.....	flush with water 15 minutes, remove clothing.
Inhalation.....	move to fresh air
Ingestion.....	Give several glasses of milk. DO NOT induce vomiting, if conscious. Get immediate medical attention.

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1242**

Section: 6 Reactivity Data

Stability..... stable
Incompatibility..... acids or oxidizing agents
Decomposition Products.. none hazardous
Hazardous Polymerization will not occur

Section: 7 Environmental Protection Procedures

Spill..... absorb large spills onto sand or other absorbent material. Shovel into sealable containers. Flush small amounts to sewer with copious amounts of water. Do not allow contact with natural waterways.

Waste Disposal..... Solidify and dispose of large quantities following proper federal, state or local regulations where applicable.

Reportable Quantities... none

TSCA Listed..... All components of this product are listed on Chemical Substances Inventory.

Section: 8 Control Measures/Special Protection

Respiratory Protection.. use with adequate ventilation.
Ventilation Recommended. provide local exhaust.
Protective Gloves..... chemical or solvent resistant material.
Eye Protection..... chemical goggles or face shield.
Other Equipment..... safety/eye wash nearby.
Work/Hygienic Practices: wash thoroughly with soap after handling.

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1242**

Section: 9 ADDITIONAL INFORMATION

HMIS Rating Code: HMIS			
		0 =	minimal
		1 =	slight
Health.....	1	2 =	moderate
Fire.....	0	3 =	serious
Reactivity.....	0	4 =	severe
Personal Protection...	B	C =	safety glasses, rubber gloves and rubber apron.

The information provided relates to the specific material designated and may not be valid for such material used in combination with other materials outside the scope of intended usage. No representation, warranty or guarantee is made and it remains the user's responsibility to confirm by other investigation as to safe material application. We do not accept liability for loss or damage that may occur from the use of this information.

Powerhouse

MATERIAL SAFETY DATA SHEET

Broadmoor Products Incorporated
2547 Three Mile Rd NW #B
Grand Rapids MI 49544

Phone: (616) 285-6440
FAX : (616) 285-5503

Product.....> **MG-1252W**

Section: 1 Material Identification

Chemical Family..... proprietary phosphate blend
DOT Ship Name..... Compound, Boiler Preserving Solid (50090)
DOT Hazard Class..... Not Regulated
Date Prepared..... May 17, 2001

Section: 2 Ingredient and Hazards

CAUTION: skin irritant, corrosive to eyes

Ingredients	Percent	Limits(TLV)
sodium sulfite CAS(7757-83-7)	<70	none established
sodium hexametaphosphate CAS(62533-93-1)	<20	none established
sodium polyacrylate CAS(9003-04-7)	< 5	none estabished
sodium carbonate CAS(497-19-8)	< 5	none estabished

Section: 3 Physical Data

Boiling Point..... n/a
Specific Density..... 64 lbs/cuft
Vapor Pressure..... n/a
Evaporation Rate..... n/a (Water=1)
Vapor Density..... n/a (AIR=1)
Measured pH (1%)..... 11.1 - 11.4
Appearance..... off white powder
Odor..... mild odor

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1252W**

Section: 4 Fire and Explosion Data

Flash Point,F,COC.....	not combustible
Flammable Limits.....	LEL: n/a UEL: n/a
Auto Ignition Temp....	n/a
Extinguishing Media...	water, carbon dioxide, dry or foam
Special Procedures....	use SCBA with full face shield
Unusual Fire Hazards..	none

Section: 5 Health Hazard Data

Threshold Limit Value..	not established
Carcinogen.....	no

*** ROUTES OF EXPOSURE ***	**EYE & DERMAL**
Eye Contact.....	prolonged contact may cause moderate to severe chemical burns. Flush promptly.
Skin Contact.....	may cause irritation. Flush promptly.
Inhalation.....	minimum dusting powder not considered an inhalation hazard.
Oral.....	may be irritating to the mouth, throat and gastrointestinal system, if ingested.

*** EMERGENCY FIRST AID ***

Eyes.....	flush with water 15 minutes, seek medical attention.
Skin.....	flush with water 15 minutes, remove clothing.
Inhalation.....	move to fresh air
Ingestion.....	Give several glasses of milk. Induce vomiting, if conscious. Get immediate medical attention.

Section: 6 Reactivity Data

Stability.....	stable
Incompatibility.....	acids or oxidizing agents
Decomposition Products..	none hazardous
Hazardous Polymerization	will not occur

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1252W**

Section: 7 Environmental Protection Procedures

Spill..... Shovel into closable containers. Flush small amounts to sewer with copious amounts of water. Do not allow contact with natural waterways.

Waste Disposal..... Dispose large quantities following proper federal, state or local regulations where applicable.

Reportable Quantities... none

TSCA Listed..... All components of this product are listed on Toxic Substance Control Act inventory.

Section: 8 Control Measures/Special Protection

Respiratory Protection.. use with adequate ventilation.
Ventilation Recommended. provide local exhaust.
Protective Gloves..... chemical or solvent resistant material.
Eye Protection..... chemical goggles or face shield.
Other Equipment..... safety/eye wash nearby.
Work/Hygienic Practices: wash thoroughly with soap after handling.

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1252W**

Section: 9 ADDITIONAL INFORMATION

HMIS Rating Code: HMIS			
		0 =	minimal
		1 =	slight
Health.....	1	2 =	moderate
Flammability.....	0	3 =	serious
Reactivity.....	0	4 =	severe
Personal Protection...	B	B =	safety glasses, rubber gloves

The information provided relates to the specific material designated and may not be valid for such material used in combination with other materials outside the scope of intended usage. No representation, warranty or guarantee is made and it remains the user's responsibility to confirm by other investigation as to safe material application. We do not accept liability for loss or damage that may occur from the use of this information.

D-SP

MATERIAL SAFETY DATA SHEET

Broadmoor Products Incorporated
2547 Three Mile Rd NW #B
Grand Rapids MI 49544

Phone: (616) 285-6440
FAX : (616) 285-5503

Product.....> **MG-1517**

Section 1: Material Identification

Chemical Family.....	alkyl alkanol amine based proprietary boiler water treatment formulation.
DOT Ship Name.....	Compound, Boiler Preserving {50093 S2}
Hazard Class.....	Class 3 (Flammable Liquid) PGIII UN2686
Date Prepared.....	May 17, 2001

Section 2: Ingredient and Hazards

Hazard Classification: flammable, corrosive, sensitizer

Hazardous Ingredient	Percent	Limits(TLV)
diethylaminoethanol CAS(100-37-8)	<40	50 mg/m^3

Section: 3 Physical Data

Boiling Point.....	212 deg F
Specific Gravity.....	0.9554
Vapor Pressure.....	100 mm Hg @ 68 F
Evaporation Rate.....	slightly faster than water
Vapor Density.....	4.0 (AIR=1)
Measured pH.....	11.5
Water Solubility.....	complete
Appearance.....	colorless to pale peach liquid
Odor.....	distinct amine, ammonia

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1517**

Section: 4	**Fire and Explosion Data**
Flash Point,F,TCC.....	125 deg
Flammable Limits.....	LEL: 6.7% UEL: 11.7%
Auto Ignition Temp....	not established
Extinguishing Media...	water fog, CO_2 , alcohol foam
Special Procedures....	none established
Unusual Fire Hazards..	decomposition products include carbon monoxide, carbon dioxide, nitrogen oxides. Use self contained breathing apparatus.

Section 5:	**Health Hazard Data**
Threshold Limit Value..	120 mg/m^3
Carcinogen.....	none suspected

*** ROUTES OF EXPOSURE ***	**EYE, DERMAL, RESPIRATORY**
Eye Contact.....	severe corrosiveness, may cause blindness.
Skin Contact.....	causes burns and intense pain, rapidly absorbed through skin tissue.
Inhalation.....	mucous membrane irritation, coughing, nausea, possible lung damage.
Oral.....	LD_{50} for rats 1300 mg/kg. Corrosive to internal organs.

*** EMERGENCY FIRST AID ***	**DO NOT INDUCE VOMITING**
Eyes.....	flush with water 30 minutes, hold eye lids open, seek immediate medical attention.
Skin.....	flush with water 20 minutes, remove clothing. Get medical attention.
Inhalation.....	move to fresh air
Ingestion.....	drink large quantities of water or milk. Get immediate medical attention.

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1517**

Section 6: Reactivity Data

Stability.....	stable
Incompatability.....	strong oxidizing agents, extreme heat or sparks. Avoid contact with copper, copper alloys, zinc, galvanized iron.
Decomposition Products..	carbon monoxide, nitrogen oxide
Hazardous Polymerization	will not occur

Section: 7 Environmental Protection Procedures

Spill.....	absorb onto sand or other absorbent material. Shovel into sealable containers.
Waste Disposal.....	Flush small spills with copious amounts of water to sewer. Collect large spills in closed containers and dispose of following state or local regulations.
Reportable Quantities...	spills exceeding 300 gallons
TSCA Listed.....	all components of this product are listed on Chemical Substances Inventory.

Section: 8 Control Measures/Special Protection

Respiratory Protection..	limit exposure time under 4 hours
Ventilation Recommended.	provide local exhaust
Protective Gloves.....	chemical resistant
Eye Protection.....	chemical goggles or face shield
Other Equipment.....	safety/eye wash nearby
Work/Hygienic Practices:	wash thoroughly after handling

Abbreviations: n/a = not applicable n/d = not determined

MATERIAL SAFETY DATA SHEET

Product.....> **MG-1517**

Section: 9 ADDITIONAL INFORMATION

HMIS Rating Code: HMIS			
		0 =	minimal
		1 =	slight
Health.....	2	2 =	moderate
Flammability.....	3	3 =	serious
Reactivity.....	0	4 =	severe
Personal Protection...	D	D =	full face shield or splash proof safety glasses, rubber gloves and rubber apron.

The information provided relates to the specific material designated and may not be valid for such material used in combination with other materials outside the scope of intended usage. No representation, warranty or guarantee is made and it remains the user's responsibility to confirm by other investigation as to safe material application. We do not accept liability for loss or damage that may occur from the use of this information.

09 Color R&D

Material Safety Data Sheet

CHEMTAN MIMOSA CR

Print Date: March 15, 2000 Revision: 0

Date of Preparation: March 15, 2000

Section 1 - Chemical Product and Company Identification

Chemtrec: 800-424-9300

Product/Chemical Name: Chemtan Mimosa CR
Chemical Formula: N/A
CAS Number: N/A
Other Designations: N/A
Manufacturer / Distributer: Chemtan Company, Inc. 57 Hampton Road P.O. Box C Exeter, NH 03833
Tel. 603-772-3741 Fax 603-772-0796

Section 2 - Composition / Information on Hazardous Ingredients

Ingredient Name	CAS Number	%wt *or* % vol
NONE		

Trace Impurities:

Ingredient	OSHA PEL TWA	OSHA PEL STEL	ACGIH TLV TWA	ACGIH TLV STEL	NIOSH REL TWA	NIOSH REL STEL	NIOSH IDLH

Section 3 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

HMIS	
H	1
F	2
R	1
PPE	C

Potential Health Effects

Primary Entry Routes: Inhalation, eye and skin contact and ingestion
Target Organs: none
Acute Effects: see below
Inhalation: In common with materials classed as nuisance particulates, lung disorders may be aggravated by exposure to high dust concentrations.
Eye: May cause slight irritation in exceptionally dusty conditions.
Skin: None known
Ingestion: N/A
Carcinogenity: IARC, NTP, and OSHA do not list this product as a carcinogen.
Medical Conditions Aggravated by Long-Term Exposure: N/A
Chronic Effects: N/A

Section 4 - First Aid Measures

Inhalation: move subject to fresh air. If breathing is difficult - give oxygen. If not breathing give artificial respiration.
Eye Contact: Flush eyes with a large amount of water for at least 15 minutes
Skin Contact: Wash affected skin areas thoroughly with soap and water
Ingestion: If swallowed consult physician
After first aid, get appropriate in-plant, paramedic, or community medical support.
Note to Physicians: Bring MSDS
Special Precautions/Procedures: N/A

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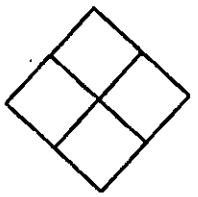
Section 5 - Fire-Fighting Measures



NFPA

Flash Point: N/A
Flash Point Method: N/A
Burning Rate: N/A
Autoignition Temperature: N.E.
LEL: N.E.
UEL: N.E.
Flammability Classification: N.E.
Extinguishing Media: water fog mechanical foam, dry chemical powder
Unusual Fire or Explosion Hazards: None
Hazardous Combustion Products:. N/A
Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.
Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill/Leak Procedures
Small Spills: Sweep up and place in drum for disposal. Wash area with water.
Large Spills: Contain spill by dike, advise EPA; state agency if required.
Containment: For large spills, do not release into sewers or waterways.
Cleanup: as per state and federal regulations
Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Handle with care using good industrial hygiene practices.
Storage Requirements: Store in dry area
Regulatory Requirements: N/A

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: Local exhaust ventilation may be necessary to control air contaminants during the use of the product.
Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.
Administrative Controls:
Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessel, or storage tanks), wear an SCBA. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: Light green powder
Odor: None
Odor Threshold: N.E.
Vapor Pressure: N/A
Vapor Density (Air=1): >1
Specific Gravity (H_2O=1, at 4 °C): N/A
pH: 3.0 (10 % solution)

Water Solubility:
Other Solubilities: N.E.
Boiling Point: N.E.
Freezing/Melting Point: Decomposes at 350 C
Viscosity: N.E.
Refractive Index: N.E.
Surface Tension: N.E.
% Volatile: N.E.
Evaporation Rate:N/A

Section 10 - Stability and Reactivity

Stability: This product is stable at room temperature in closed containers under normal storage and handling conditions.
Polymerization: Hazardous polymerization cannot occur.
Chemical Incompatibilities: None known
Conditions to Avoid: None known
Hazardous Decomposition Products: None Known

Section 11 - Toxicological Information

Eye Effects:

Skin Effects:

NO TOXICITY DATA AVAILABLE

Toxicity Data:*

Acute Inhalation Effects : NE.
Human, inhalation, TC_{Lo}:
Acute Oral Effects: NE
Rat, oral, LD_{50}: mg/kg
Chronic Effects: NE
Carcinogenicity :NE
Mutagenicity: NE
Teratogenicity: NE

Section 12 - Ecological Information

Ecotoxicity: NE
Environmental Fate: NE
Environmental Degradation: NE
Soil Absorption/Mobility: NE

Section 13 - Disposal Considerations

Disposal: Bury or incinerate in accordance of federal, state, and local regulations.
Disposal Regulatory Requirements: NE
Container Cleaning and Disposal: Containers should be triple rinsed, according to federal regulations and / or good waste management practices..

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Not regulated
Shipping Symbols: N/A
Hazard Class: N/A
ID No.: N/A
Packing Group: N/A

Packaging Authorizations
a) Exceptions:
b) Non-bulk Packaging:
c) Bulk Packaging:

Quantity Limitations
a) Passenger, Aircraft, or Railcar: None
b) Cargo Aircraft Only: None

Label: N/A
Special Provisions (172.102): N/A

Vessel Stowage Requirements
a) **Vessel Stowage:** None
b) **Other:** None

Section 15 - Regulatory Information

EPA Regulations:
RCRA Hazardous Waste Number: Not listed (40 CFR 261.33).
RCRA Hazardous Waste Classification : N/A
CERCLA Hazardous Substance: N/A
CERCLA Reportable Quantity (RQ): N/A
SARA 311/312 Codes: N/A
SARA Toxic Chemical (40 CFR 372.65): N/A
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): N/A
OSHA Regulations:
Air Contaminant (20 CFR 1910.1000, Table Z-1, Z-1-A): N/A
OSHA Specifically Regulated Substance: N/A
State Regulations: N/A

Section 16 - Other Information

Prepared By: The Chemtan Co.

Revision Notes:

Additional Hazard Rating Systems: N/A

N/A = No appropriate information available **NE** = Not established

Disclaimer: This information is furnished without warranty, representation, inducement, or license of any kind except that it is accurate to the best of our knowledge or obtained from sources believed to be accurate, and we do not assume any legal responsibility for use or reliance upon same. Customers are encouraged to conduct their own tests. Before using product, read label.

Mallinckrodt
Material Safety Data

Emergency Phone Number: 314-982-5000

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Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361.

MINERAL OIL

PRODUCT IDENTIFICATION:

Synonyms: Paraffin oil; liquid petrolatum

Formula CAS No.: 8012-95-1

Molecular Weight: Not applicable.

Chemical Formula: Not applicable.

Hazardous Ingredients: Mineral oil

PRECAUTIONARY MEASURES

WARNING! MAY BE HARMFUL IF SWALLOWED. MISTS OR FUME MAY BE HARMFUL IF INHALED. MAY CAUSE EYE IRRITATION.

Avoid breathing mist.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.
Avoid contact with eyes, skin and clothing.

EMERGENCY/FIRST AID

If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. If swallowed, DO NOT INDUCE VOMITING! Aspiration hazard. Call a physician immediately. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes.
SEE SECTION 5.

DOT Hazard Class: Not Regulated

SECTION 1 Physical Data

Appearance: Colorless oily liquid.

Odor: Odorless.

Solubility: Insoluble in water.

Boiling Point: 260-330°C (500-626°F)

Melting Point: No information found.

Specific Gravity: Heavy: 0.845 to 0.905

Light: 0.818 to 0.880

Vapor Density (Air = 1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
Flashpoint: Heavy: 435°F; Light: 390°F

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:
This substance does not polymerize.

Incompatibilities:
Strong oxidizers.

SECTION 4 Leak/Spill Disposal Information

Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require respiratory protection from mists. Contain and recover liquid when possible. Collect and atomize in an approved combustion chamber, or absorb with vermiculite, dry sand, earth or similar material for disposal in an approved facility. Do not flush to sewer!

Ensure compliance with local, state and federal regulations.

Non HAZ
24-000143
Rev

NFPA Ratings: Health: 0 Flammability: 1 Reactivity: 0

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Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361.

SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:
Inhalation of mist or fume may produce respiratory difficulties. Symptoms may include irritation of the mucous membranes and upper respiratory tract.

Ingestion:
Material is a cathartic and can cause serious diarrhea. Nausea and vomiting may also occur. Aspiration of mineral oil into the lungs can cause chemical pneumonia.

Skin Contact:
Prolonged contact may cause irritation; occasionally dermatitis due to hypersensitivity occurs.

Eye Contact:
Mists or fumes may irritate the eyes. Can cause discomfort similar to motor oil.

Chronic Exposure:
No information found.

Aggrevation of Pre-existing Conditions:
No information found.

B. FIRST AID

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:
If swallowed, DO NOT INDUCE VOMITING! Aspiration hazard. Call a physician immediately.

Skin Exposure:
Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Exposure:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

C. TOXICITY DATA (RTECS, 1986)

No LD50/LC50 information found relating to normal routes of occupational exposure. Tumorigenic effects cited.

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:
For Mineral Oil; Misted[1]:
-OSHA Permissible Exposure Limit (PEL): 5 mg/m^3
-ACGIH Threshold Limit Value (TLV):
5 mg/m^3 (TWA) 10 mg/m^3 (STEL)
(as sampled by method that does not collect vapor)
([1]Refers to airborne mist of mineral oil)

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)
If the TLV is exceeded, a dust/mist respirator may be worn up to ten times the TLV. Consult respirator supplier for details.

Skin Protection:
Wear protective gloves and clean body-covering clothing.

Eye Protection:
Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage.

MINIL

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MALLINCKRODT

Material Safety Data Sheet

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Mallinckrodt, Inc. Science Products Division, P.O. Box M Paris, KY 40361

Emergency Telephone Number: 314-982-5000

MINERAL OIL

PRODUCT IDENTIFICATION:

Synonyms: Paraffin oil; liquid petrolatum

Formula CAS No.: 8012-95-1

Molecular Weight: Not applicable.

Chemical Formula: Not applicable.

Hazardous Ingredients: Mineral oil

PRECAUTIONARY MEASURES

WARNING! MAY BE HARMFUL IF SWALLOWED. MISTS OR FUME MAY BE HARMFUL IF INHALED. MAY CAUSE EYE IRRITATION.

Avoid breathing mist.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.
Avoid contact with eyes, skin and clothing.

EMERGENCY/FIRST AID

If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. If swallowed, DO NOT INDUCE VOMITING! Aspiration hazard. Call a physician immediately. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes.
SEE SECTION 5.

DOT Hazard Class: Not Regulated

SECTION 1 Physical Data

Appearance: Colorless oily liquid.

Odor: Odorless.

Solubility: Insoluble in water.

Boiling Point: 260-330°C (500-626°F)

Melting Point: No information found.

Density: 0.89

Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
Flashpoint 188°C (370°F)

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:
This substance does not polymerize.

Incompatibilities:
Strong oxidizers.

SECTION 4 Leak/Spill Disposal Information

Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require respiratory protection from mists. Contain and recover liquid when possible. Collect and atomize in an approved combustion chamber, or absorb with vermiculite, dry sand, earth or similar material for disposal in an approved facility. Do not flush to sewer!

Ensure compliance with local, state and federal regulations.

AD

NFPA Ratings: Health: 0 Flammability: 1 Reactivity: 0

Effective Date: 04-06-89 Supersedes 10-01-87

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SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:
Inhalation of mist or fume may produce respiratory difficulties. Symptoms may include irritation of the mucous membranes and upper respiratory tract.

Ingestion:
Material is a cathartic and can cause serious diarrhea. Nausea and vomiting may also occur. Aspiration of mineral oil into the lungs can cause chemical pneumonia.

Skin Contact:
Prolonged contact may cause irritation; occasionally dermatitis due to hypersensitivity occurs.

Eye Contact:
Mists or fumes may irritate the eyes. Can cause discomfort similar to motor oil.

Chronic Exposure:
No information found.

Aggrevation of Pre-existing Conditions:
No information found.

B. FIRST AID

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:
If swallowed, DO NOT INDUCE VOMITING! Aspiration hazard: Call a physician immediately.

Skin Exposure:
Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Exposure:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

C. TOXICITY DATA (RTECS, 1986)

No LD50/LC50 information found relating to normal routes of occupational exposure. Tumorigenic effects cited.

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:
For Mineral Oil; Misted[1]:
-OSHA Permissible Exposure Limit (PEL): 5 mg/m^3
-ACGIH Threshold Limit Value (TLV):
5 mg/m^3 (TWA) 10 mg/m^3 (STEL)
(as sampled by method that does not collect vapor)
([1]Refers to airborne mist of mineral oil)

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)
If the TLV is exceeded, a dust/mist respirator may be worn up to ten times the TLV. Consult respirator supplier for details.

Skin Protection:
Wear protective gloves and clean body-covering clothing.

Eye Protection:
Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage.

.....

MINIL

MALLINCKRODT

Material Safety Data Sheet

Mallinckrodt, Inc. Science Products Division, P.O. Box M Paris, KY 40361

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Addendum to Material Safety Data Sheet

REGULATORY STATUS

(Chem.Key: MINIL)

Hazard Categories for SARA Section 311/312 Reporting

Acute	Chronic	Fire	Pressure	Reactive
X				

Product or Components of Product:	SARA EHS Sect. 302 RQ (lbs.)	SARA EHS Sect. 302 TPQ (lbs.)	SARA Section 313 Chemicals Name List	SARA Section 313 Chemicals Chemical Category	CERCLA Sec.103 RQ (lbs.)	RCRA Sec. 261.33
MINERAL OIL (8012-95-1)	No	No	No	No	No	No

SARA Section 302 EHS RQ: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.
SARA Section 302 EHS TPQ: Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.
SARA Section 313 Chemicals: Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.
CERCLA Sec. 103: Comprehensive Enviromental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4
RCRA: Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

Effective Date: 04-06-89 Supersedes 10-01-87

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EXXON COMPANY, U.S.A.
A DIVISION OF EXXON CORPORATION

DATE ISSUED 7/1/85

MATERIAL SAFETY DATA SHEET

EXXON COMPANY, U.S.A. P.O. BOX 2180 HOUSTON, TX 77252-2180

A. IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME
105 COASTAL PALE MINERAL OIL

PRODUCT CODE
311502 - 01502

CHEMICAL NAME
Petroleum Lubricating Oil, Base Stock

CAS NUMBER
Complex Mixture
CAS Number not applicable

PRODUCT APPEARANCE AND ODOR
Clear liquid, light yellow color
Mild, bland petroleum odor

EMERGENCY TELEPHONE NUMBER
(713) 656-3424

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS	CAS NO. OF COMPONENTS	APPROXIMATE CONCENTRATION
Hydrotreated light naphthenic distillate, petroleum	64742-53-6	Approximately 70%
Hydrotreated heavy naphthenic distillate, petroleum	64742-52-5	Approximately 30%

EXPOSURE LIMIT FOR TOTAL PRODUCT
5 mg/m3 for oil mist in air

BASIS
OSHA Regulation 29 CFR 1910.1000

C. EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT
If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

SKIN CONTACT
In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water.

INHALATION
Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen, if available. If overexposed to oil mist, remove from further exposure until excessive oil mist condition subsides.

INGESTION
If ingested, call a physician immediately.

D. FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM)
157°C (315°F)
ASTM D 92, Cleveland Open Cup

AUTOIGNITION TEMPERATURE
Greater than 260°C (500°F)

FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)
Estimated values: Lower Flammable Limit 0.9% Upper Flammable Limit 7%

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES
Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Eighth Edition (1984):

Use water spray, dry chemical, foam or carbon dioxide. Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for men attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS
Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

"EMPTY" CONTAINER WARNING
"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

E. HEALTH AND HAZARD INFORMATION

VARIABILITY AMONG INDIVIDUALS
Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure)
Prolonged or repeated skin contact may cause skin irritation.

NATURE OF HAZARD
Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis.

Product contacting the eyes may cause eye irritation.

TOXICITY INFORMATION
Product has a low order of acute oral toxicity.

F. PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE
IBP Approximately 271°C (520°F)
by ASTM D 2887

SPECIFIC GRAVITY (15.6 C/15.6 C)
0.90

MOLECULAR WEIGHT
Approximately 310

pH
Essentially neutral

POUR, CONGEALING OR MELTING POINT
-18°C (0°F)
Pour Point by ASTM D 97

VISCOSITY
108 SSU @ 100°F

VAPOR PRESSURE
Less than 0.01 mm Hg @ 20°C

VAPOR DENSITY (AIR = 1)
Greater than 5

PERCENT VOLATILE BY VOLUME
Negligible from open container in 4 hours @ 38°C (100°F)

EVAPORATION RATE @ 1 ATM. AND 25 C (77 F) (n-BUTYL ACETATE = 1)
Less than 0.01

SOLUBILITY IN WATER @ 1 ATM. AND 25 C (77 F)
Negligible; less than 0.1%

G. REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.

H. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Recover free product. Add sand, earth, or other suitable absorbent to spill area. Minimize skin contact. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable governmental regulations.

I. PROTECTION AND PRECAUTIONS

VENTILATION
Use local exhaust to capture vapor, mists or fumes, if necessary. Provide greater than 60 feet per minute hood face velocity for confined spaces. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. Use explosion-proof equipment. No smoking or open lights.

RESPIRATORY PROTECTION
Normally not needed at ambient temperatures. Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

PROTECTIVE GLOVES
Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION
Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT
Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

WORK PRACTICES / ENGINEERING CONTROLS
Keep containers closed when not in use. Do not handle or store near heat, sparks, flame or strong oxidants.

PERSONAL HYGIENE
Minimize breathing vapor, mist or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

J. TRANSPORTATION INFORMATION

TRANSPORTATION INCIDENT INFORMATION
For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

The information and recommendations contained herein are, to the best of Exxon's knowledge and belief, accurate and reliable as of the date issued. Exxon does not warrant or guarantee their accuracy or reliability, and Exxon shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.

FOR ADDITIONAL INFORMATION ON HEALTH EFFECTS CONTACT:
DIRECTOR OF INDUSTRIAL HYGIENE
EXXON COMPANY, U.S.A.
P. O. BOX 2180 ROOM 2737
HOUSTON, TX 77252-2180
(713) 656-2443

FOR OTHER PRODUCT INFORMATION CONTACT:
MANAGER, MARKETING TECHNICAL SERVICES
EXXON COMPANY, U.S.A.
P. O. BOX 2180 ROOM 2455
HOUSTON, TX 77252-2180
(713) 656-5949

WHITE MINERAL OIL -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology:
No data available.
Teratogenicity:
No data available.
Reproductive Effects:
No data available.
Neurotoxicity:
No data available.
Mutagenicity:
No data available.
Other Studies:
No data available.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
No information available
IMO
No information available.
IATA
No information available.
RID/ADR
No information available.
Canadian TDG
No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
TSCA
CAS# 8042-47-5 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA
Section 302 (RQ)
None of the chemicals in this material have an RQ.
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
Section 313
No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
WHITE MINERAL OIL is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level:
None of the chemicals in this product are listed.
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.
Risk Phrases:
Safety Phrases:
WGK (Water Danger/Protection)
CAS# 8042-47-5: No information available.
Canada
CAS# 8042-47-5 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of Not controlled..
CAS# 8042-47-5 is not listed on Canada's Ingredient Disclosure List.
Exposure Limits

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 10/10/1995 Revision #9 Date: 9/02/1997

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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**** MATERIAL SAFETY DATA SHEET ****

Mineral Oil, Light and Heavy
17996

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Mineral Oil, Light and Heavy
Catalog Numbers:
S76306-1, NC9526734, O121, O121 1, O121 20, O121 4, O121-20, O121-4, O121-500, O1211, O12120, O1214, O122 1, O122 4, O122-20, O122-4, O122-500, O1221, O1224, O2 20, O220, O5 20, O520, XXO121208LITER
Synonyms:
White mineral oil; Kaydol; Parol; Bath Oil (Stabilized), Paraffin Oil
Company Identification: Fisher Scientific
1 Reagent Lane
Fairlawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
8042-47-5	WHITE MINERAL OIL	100.0	232-455-8

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW
Appearance: water-white.
Caution! Causes severe eye irritation. Causes digestive and respiratory tract irritation.
Target Organs: Lungs.

Potential Health Effects
Eye:
Causes severe eye irritation.
Skin:
May cause skin irritation. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Chronic exposure may cause lung damage.
Ingestion:
May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Inhalation:
Causes respiratory tract irritation.
Chronic:
Chronic exposure may cause lung damage.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:
Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion:
If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
Inhalation:
Remove from exposure to fresh air immediately. Get medical aid if cough or other symptoms appear.
Notes to Physician:
Treat symptomatically and

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Extinguishing Media:
For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.
Autoignition Temperature: Not available.
Flash Point: 360-390F
NFPA Rating:(estimated) Health: 2; Flammability: 1; Reactivity: 0
Explosion Limits, Lower: Not available.
Upper: Not available.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:
Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container. Remove all sources of ignition.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:
Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
Storage:
Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
WHITE MINERAL OIL	none listed	none listed	none listed

OSHA Vacated PELs:
WHITE MINERAL OIL:
No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin:
Wear appropriate protective gloves to prevent skin exposure.
Clothing:
Wear appropriate protective clothing to prevent skin exposure.
Respirators:
Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Liquid
Appearance: water-white
Odor: None reported
pH: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: =33.5 cst @40C
Boiling Point: Not available.
Freezing/Melting Point: Not available.
Decomposition Temperature: Not available.
Solubility: Insoluble in water.
Specific Gravity/Density: 0.818-0.905
Molecular Formula: Hydrocarbon
Molecular Weight: Not available.

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Stable under normal temperatures and pressures.
Conditions to Avoid:
High temperatures, ignition sources.
Incompatibilities with Other Materials:
Strong oxidizing agents.
Hazardous Decomposition Products:
Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 8042-47-5: PY8047000
LD50/LC50:
Not available.
Carcinogenicity:

Mineral Oil

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AMERICHEM CORPORATION PAGE 1
MASON, MICHIGAN
210180 MINERAL SPIRITS
M A T E R I A L S A F E T Y D A T A S H E E T Dept 13

MANUFACTURER'S NAME: AMERICHEM CORPORATION
ADDRESS: 340 NORTH STREET
MASON, MI 48854 PHONE: (517)-676-9363

FOR CHEMICAL EMERGENCY SPILL, LEAK, FIRE EXPOSURE OR ACCIDENT
CALL: CHEMTREC 800-424-9300

PRODUCT NAME: MINERAL SPIRITS

PROPER SHIPPING NAME: PETROLEUM-NAPHTHA

DOT HAZARD CLASS: COMBUSTIBLE LIQUID IDENTIFICATION #: UN 1255
HMIS RATINGS HEALTH: 1 REACTIVITY: 0
FLAMMABILITY: 2 PERSONAL PROTECTION: BH

CHEMICAL FORMULA: MIXTURE
CHEMICAL FAMILY: ALIPHATIC PETROLEUM HYDROCARBONS
CHEMICAL NAME AND SYNONYMS: PETROLEUM-NAPTHA
MINERAL SPIRITS, REGULAR
STODDARD SOLVENT

I N G R E D I E N T S E C T I O N

CAS REGISTRY #	%W	%V	CHEMICAL NAME(S)	OSHA DEFINED CARCINOGEN
64741-41-9	100	100	C6-C12 NAPHTHA (PETROLEUM) HEAVY,STRAIGHT RUN OSHA PEL = 100 PPM; ACGIH TLV = 100 PPM. ALTERNATE CAS # = 8052-41-3 STODDARD SOLVENT OSHA PEL = 100 PPM; ACGIH TLV = 100 PPM.	NO

P H Y S I C A L D A T A

BOILING POINT: 300 DEG. F

VAPOR PRESSURE(MM HG): 3.1 AT 20C DEG. C

VAPOR DENSITY(AIR=1): 4.9

SOLUBILITY IN WATER: NIL

SPECIFIC GRAVITY(H2O=1): .78 AT 60 DEG. F

PERCENT VOLATILE BY VOLUME:100

EVAPORATION RATE(BUTYL ACETATE=1): .15

PH: NA

**** CONTINUED ON PAGE 2 ****

APPEARANCE AND ODOR: CLEAR, COLORLESS LIQUID W/CHARACTERISTIC ODOR
OTHER INFORMATION: NONE

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >100 DEG. F METHOD: TCC

FLAMMABLE LIMITS(% BY VOLUME) LOWER: 0.7 UPPER: 6.0

FIRE EXTINGUISHING MEDIA: FOAM, DRY CHEMICAL, CO2, WATER FOG.

SPECIAL FIRE-FIGHTING PROCEDURES: PROPER RESPIRATORY EQUIPMENT TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF COMBUSTION PRODUCTS IS RECOMMENDED. (SEE HAZARDOUS DECOMPOSITION PRODUCTS). WATER IN A STRAIGHT HOSE STREAM MAY CAUSE FIRE TO SPREAD AND SHOULD BE USED AS A COOLING MEDIUM ONLY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: VAPOR ACCUMULATIONS MAY FLASH AND/OR EXPLODE IF IGNITED. KEEP IGNITION SOURCES, OPEN FLAMES, ETC., AWAY FROM THESE FUMES.

SPECIAL PRECAUTIONS

SPECIAL HANDLING AND STORING PRECAUTIONS:
STORE IN A COOL, DRY, VENTILATED AREA AWAY FROM EXCESSIVE HEAT, SPARKS AND OPEN FLAMES. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN AND/OR BREATHING OF VAPORS WHEN HANDLING. KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT STORE WITH OXIDIZING AGENTS.

OTHER SPECIAL PRECAUTIONS: PRODUCT IS COMBUSTIBLE AND MAY BE IGNITED BY HEAT, SPARKS OR FLAME.

HEALTH HAZARD DATA

EXPOSURE LIMIT: OSHA PEL = 100 PPM (STODDARD SOLVENT)

PRIMARY ROUTE(S) OF ENTRY: ABSORPTION INHALATION INGESTION

EFFECTS OF OVEREXPOSURE

EYES: MODERATE IRRITATION AND DISCOMFORT.

SKIN: MODERATE IRRITATION AND DISCOMFORT. DEFATTING OF SKIN AND REDNESS ARE POSSIBLE. TOXIC SYSTEMIC EFFECTS FROM ABSORPTION ARE EXPECTED TO BE MINOR.

INHALATION: RESPIRATORY TRACT IRRITATION AND/OR HEADACHES POSSIBLE. SIGNIFICANT SYSTEMIC TOXIC EFFECTS ARE LIKELY FOLLOWING

**** CONTINUED ON PAGE 3 ****

REPEATED EXPOSURE TO HIGH CONCENTRATIONS.

INGESTION: GASTROINTESTINAL TRACT IRRITATION AND / OR DISCOMFORT IS POSSIBLE.

OTHER: ESTIMATED RAT ORAL LD50 > 5000 MG/KG.

FIRST AID PROCEDURES

EYES: FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.

SKIN: WASH EXPOSED AREA WITH MILD SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.

INHALATION: REMOVE VICTIM FROM AREA OF EXPOSURE. IF UNCONSCIOUS, GIVE OXYGEN. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. DANGER FROM ASPIRATING INTO LUNGS EXCEEDS SHORT TERM TOXIC EFFECTS. GET IMMEDIATE MEDICAL HELP.

OTHER: THIS PRODUCT IS A PULMONARY ASPIRATION HAZARD IF SWALLOWED AND VOMITING OCCURS.

R E A C T I V I T Y D A T A

STABILITY: STABLE

CONDITIONS TO AVOID: EXPOSURE TO EXCESSIVE HEAT, OPEN FLAMES AND SPARKS. AVOID CONDITIONS THAT FAVOR THE FORMATION OF EXCESSIVE MISTS AND/OR FUMES.

INCOMPATIBILITY: STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE FROM BURNING
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: NONE

S P I L L O R L E A K P R O C E D U R E S

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
EXTINGUISH POSSIBLE SOURCES OF IGNITION. EVACUATE ALL UNPROTECTED PERSONNEL AND VENTILATE AREA. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY, SKIN/EYE PROTECTION SHOULD ENTER SPILL AREA. DIKE

**** CONTINUED ON PAGE 4 ****

AREA TO CONTAIN SPILL AND CLEAN UP BY ABSORBING ON AN INERT ABSORBENT OR OTHER MEANS. DON'T FLUSH INTO SEWERS OR NATURAL WATERWAYS.

WASTE DISPOSAL METHOD: CONDITIONS OF USE MAY CAUSE THIS MATERIAL TO BECOME A HAZARDOUS WASTE AS DEFINED BY STATE OR FEDERAL LAW. USE APPROVED TREATMENT, TRANSPORTERS AND DISPOSAL SITES.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION(SPECIFY TYPE): USE NIOSH/MSHA APPROVED RESPIRATORS WHEN VAPORS OR MIST CONCENTRATIONS EXCEED PERMISSIBLE EXPOSURE LIMITS.

VENTILATION: USE LOCAL EXHAUST OR DILUTION VENTILATION AS APPROPRIATE TO CONTROL VAPOR OR MISTS TO BELOW PERMISSABLE EXPOSURE LIMITS.

PROTECTIVE GLOVES: NEOPRENE RUBBER OR OTHER CHEMICAL RESISTANT MATERIAL.

EYE PROTECTION: CHEMICAL SAFETY GOGGLES WITH SPLASH SHIELDS.

OTHER PROTECTION EQUIPMENT: CHEMICAL RESISTANT BOOTS, APRON, ETC., AS NECESSARY TO PREVENT CONTAMINATION OF CLOTHING AND SKIN CONTACT.

REGULATORY INFORMATION

DOT HAZARD CLASS(S) - COMBUSTIBLE LIQUID
OSHA HAZ CLASS(S) - COMBUSTIBLE, EYE/SKIN HAZARD, POSSIBLE TARGET ORGAN EFFECTS.
SARA HAZ CLASS(S) - FIRE, ACUTE AND POSSIBLE CHRONIC HEALTH
SARA TITLE III SEC.313 INGREDIENTS - NONE LISTED

ADDITIONAL INFORMATION

THE FOLLOWING INFORMATION MAY BE OF IMPORTANCE TO YOU PLEASE READ CAREFULLY

CAUTION! COMBUSTIBLE. TREAT AS AN OSHA CLASS II COMBUSTIBLE LIQUID. EXCESSIVE EXPOSURE TO VAPORS OR MISTS MAY CAUSE IRRITATION TO EYES, NOSE, AND THROAT, AND RESULT IN CNS EFFECTS SUCH AS DIZZINESS, LOSS OF BALANCE/COORDINATION, UNCONSCIOUSNESS, COMA, RESPIRATORY FAILURE AND DEATH. PROLONGED OR REPEATED SKIN CONTACT REMOVES NATURAL OILS AND FATS AND MAY CAUSE CHEMICAL DERMATITIS. ANIMAL STUDIES INDICATED KIDNEY DAMAGE IN MALE RATS AFTER EXPOSURE TO LIGHT HYDROCARBONS SUCH AS STODDARD SOLVENT. THIS MATERIAL HAS NOT BEEN IDENTIFIED AS A CARCINOGEN BY NTP, IARC, OR OSHA.

**** CONTINUED ON PAGE 5 ****

AMERICHEM CORPORATION
MASON, MICHIGAN
210180 MINERAL SPIRITS

M A T E R I A L S A F E T Y D A T A S H E E T

THIS MATERIAL SAFETY DATA SHEET (MSDS) WAS PREPARED IN ACCORDANCE WITH 29CFR 1910.1200. THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE ABOVE INFORMATION IS PROVIDED WITHOUT WARRANTY, EXPRESSED OR IMPLIED, REGARDING ITS CORRECTNESS.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME REPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

NAME: JACK R. LAPEER
DATE REVISED: 12/06/90
REVISION NUMBER: 01

**** E N D O F S H E E T ****

AMERICHEM CORPORATION
MASON, MICHIGAN

~~11006~~ 210060

M A T E R I A L S A F E T Y D A T A S H E E T

21-360441

New

MANUFACTURER'S NAME: AMERICHEM CORPORATION
ADDRESS: 340 NORTH STREET
MASON, MI 48854 PHONE: (517)-676-9363

FOR CHEMICAL EMERGENCY SPILL, LEAK, FIRE EXPOSURE OR ACCIDENT
CALL: CHEMTEEC 800-424-9300

PRODUCT NAME: RULE 66 MINERAL SPRRITS

PROPER SHIPPING NAME: PETROLEUM-NAPHTHA

HAZARD CLASS: COMBUSTIBLE LIQUID IDENTIFICATION #: UN 1255
HMIS RATINGS HEALTH: 2 REACTIVITY: 0
FLAMMABILITY: 2 PERSONAL PROTECTION: B

CHEMICAL FORMULA: MIXTURE
CHEMICAL FAMILY: ALIPHATIC PETROLEUM HYDROCARBONS
CHEMICAL NAME AND SYNONYMS: PETROLEUM-NAPTHA

I N G R E D I E N T S E C T I O N

CAS REGISTRY #	%W	%V	CHEMICAL NAME(S)	OSHA DEFINED CARCINOGEN
64742-88-7	0	100	C9-C12 ALIPHATIC SOLVENT NAPTHA	NO

P H Y S I C A L D A T A

BOILING POINT: 325 DEG. F

VAPOR PRESSURE(MM HG): 8.5 AT 38 DEG. C

VAPOR DENSITY(AIR=1): 4.73

SOLUBILITY IN WATER: NIL

SPECIFIC GRAVITY(H2O=1): .78 AT 60 DEG. F

PERCENT VOLATILE BY VOLUME:100

EVAPORATION RATE(BUTYL ACETATE=1): .15

PH: NA

APPEARANCE AND ODOR: SWEET SMELLING, WATER WHITE LIQUID.

**** CONTINUED ON PAGE 2 ****

M A T E R I A L S A F E T Y D A T A S H E E T

F I R E A N D E X P L O S I O N H A Z A R D D A T A

FLASH POINT: 107 DEG. F METHOD: TCC

FLAMMABLE LIMITS(% BY VOLUME) LOWER: 1 UPPER: 7

FIRE EXTINGUISHING MEDIA: FOAM, DRY CHEMICAL, CO2, WATER FOG.

SPECIAL FIRE-FIGHTING PROCEDURES: PROPER RESPIRATORY EQUIPMENT TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF COMBUSTION PRODUCTS IS RECOMMENDED. (SEE HAZARDOUS DECOMPOSITION PRODUCTS). WATER IN A STRAIGHT HOSE STREAM MAY CAUSE FIRE TO SPREAD AND SHOULD BE USED AS A COOLING MEDIUM ONLY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: VAPOR ACCUMULATIONS MAY FLASH AND/OR EXPLODE IF IGNITED. KEEP IGNITION SOURCES, OPEN FLAMES, ETC., AWAY FROM THESE FUMES.

S P E C I A L P R E C A U T I O N S

SPECIAL HANDLING AND STORING PRECAUTIONS:
STORE IN A COOL, DRY, VENTILATED AREA AWAY FROM EXCESSIVE HEAT, SPARKS AND OPEN FLAMES. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN AND/OR BREATHING OF VAPORS WHEN HANDLING. KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT STORE WITH OXIDIZING AGENTS.

OTHER SPECIAL PRECAUTIONS: PRODUCT IS COMBUSTIBLE DO NOT SMOKE WHEN USING.

H E A L T H H A Z A R D D A T A

EXPOSURE LIMIT: 100 PPM STODDARD SOLVENT 1985-86 ACGIH

PRIMARY ROUTE(S) OF ENTRY: ABSORBTION INHALATION

EFFECTS OF OVEREXPOSURE

EYES: MODERATE IRRITATION AND DISCOMFORT.

SKIN: MODERATE IRRITATION AND DISCOMFORT. DEFATTING OF SKIN AND REDNESS ARE POSSIBLE. TOXIC SYSTEMIC EFFECTS FROM ABSORPTION ARE EXPECTED TO BE MINOR.

INHALATION: MODERATE RESPIRATORY DISCOMFORT AND/OR HEADACHES. TOXIC SYSTEMIC EFFECTS FROM INHALATION ARE EXPECTED TO BE MINOR.

INGESTION: SEE ADDITIONAL INFORMATION SECTION

FIRST AID PROCEDURES

EYES: FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.

SKIN: WASH EXPOSED AREA WITH MILD SOAP AND WATER. GET MEDICAL

**** CONTINUED ON PAGE 3 ****

M A T E R I A L S A F E T Y D A T A S H E E T

ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.

INHALATION: REMOVE VICTIM FROM AREA OF EXPOSURE. IF UNCONSCIOUS, GIVE OXYGEN. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ATTENTION.

OTHER: NONE

R E A C T I V I T Y D A T A

STABILITY: STABLE

CONDITIONS TO AVOID: EXPOSURE TO EXCESSIVE HEAT, OPEN FLAMES AND SPARKS. AVOID CONDITIONS THAT FAVOR THE FORMATION OF EXCESSIVE MISTS AND/OR FUMES.

INCOMPATIBILITY: STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION MAY YIELD CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: NONE

S P I L L O R L E A K P R O C E D U R E S

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
EXTINGUISH POSSIBLE SOURCES OF IGNITION. EVACUATE ALL UNPROTECTED PERSONNEL AND VENTILATE AREA. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY, SKIN/EYE PROTECTION SHOULD ENTER SPILL AREA. DIKE AREA TO CONTAIN SPILL AND CLEAN UP BY ABSORBING ON AN INERT ABSORBENT OR OTHER MEANS. DON'T FLUSH INTO SEWERS OR NATURAL WATERWAYS.

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH LOCAL, STATE OR FEDERAL REGULATIONS.

S P E C I A L P R O T E C T I O N I N F O R M A T I O N

RESPIRATORY PROTECTION(SPECIFY TYPE): USE NIOSH/MSHA APPROVED RESPIRATORS WHEN VAPORS OR MIST CONCENTRATIONS EXCEED PERMISSIBLE EXPOSURE LIMITS.

VENTILATION: USE LOCAL EXHAUST OR DILUTION VENTILATION AS APPROPRIATE TO CONTROL VAPOR OR MISTS TO BELOW PERMISSABLE EXPOSURE LIMITS.

PROTECTIVE GLOVES: NEOPRENE RUBBER OR OTHER CHEMICAL RESISTANT MATERIAL.

EYE PROTECTION: CHEMICAL SAFETY GOGGLES WITH SPLASH SHIELDS.

**** CONTINUED ON PAGE 4 ****

M A T E R I A L S A F E T Y D A T A S H E E T

OTHER PROTECTION EQUIPMENT: CHEMICAL RESISTANT BOOTS, APRON, ETC., AS NECESSARY TO PREVENT CONTAMINATION OF CLOTHING AND SKIN CONTACT.

A D D I T I O N A L I N F O R M A T I O N

THE FOLLOWING INFORMATION MAY BE OF IMPORTANCE TO YOU PLEASE READ CAREFULLY

INGESTION: SLIGHTLY TOXIC. ORAL LD 50 ESTIMATED BETWEEN .5 AND 5.0 GRAMS PER KILOGRAM OF BODY WEIGHT.
CAUTION! COMBUSTIBLE DANGER! HARMFUL OR FATAL IF SWALLOWED.
TREAT AS AN OSHA CLASS II COMBUSTIBLE LIQUID.

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WICH WE BELIEVE ARE RELIABLE. HOWEVER, THE ABOVE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED, REGARDING ITS CORRECTNESS.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

NAME: JACK R. LAPEER
DATE REVISED: 11/25/85
REVISION NUMBER: 0

MATERIAL SAFETY DATA SHEET

SHELL MSDS: 7550-13 04/21/95

SHELL MINERAL SPIRITS 135

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE
SHELL: 713-473-9461
CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE
SHELL: 713-241-4819

MANUFACTURER'S NAME AND ADDRESS

SHELL OIL COMPANY
PRODUCT SAFETY & COMPLIANCE
P.O. BOX 4320
HOUSTON, TX 77210

SECTION I NAME

PRODUCT: SHELL MINERAL SPIRITS 135
CHEM NAME: MIXTURE
CHEM FAMILY: HYDROCARBON SOLVENT
SHELL CODE: 83048

HEALTH HAZARD: 2 **FIRE HAZARD:** 2 **REACTIVITY:** 0

SECTION II-A INGREDIENTS

NO.	COMPOSITION	CAS NO.	PERCENT
P	SHELL MINERAL SPIRITS 135*	MIXTURE	100
1	SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC	64742-88-7	85
2	SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	15
.	CONTAINS		
A	TRIMETHYLBENZENE	25551-13-7	8-10

*A COMPLEX COMBINATION OF PREDOMINATELY C8-C12 HYDROCARBONS; EXACT COMPOSITION WILL VARY.

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LD50
P	NOT AVAILABLE		
1*	>25 ML/KG (RAT)	>4 ML/KG (RABBIT)	>700 PPM/4H (RAT)
2*	4.7 G/KG (RAT)	>4 ML/KG (RAT)	>3670 PPM/8H (RAT)

*BASED UPON TESTING OF EITHER PRODUCT OR ESSENTIALLY SIMILAR PRODUCTS.

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT:
LIQUID IS MINIMALLY IRRITATING TO THE EYES. HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION.

SKIN CONTACT:
LIQUID IS SLIGHTLY IRRITATING TO THE SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

INHALATION:
VAPORS MAY BE IRRITATING TO NOSE, THROAT AND RESPIRATORY TRACT. HIGH VAPOR CONCENTRATIONS MAY CAUSE CNS DEPRESSION.

INGESTION:
INGESTION OF PRODUCT MAY RESULT IN VOMITING; ASPIRATION (BREATHING) OF VOMITUS INTO THE LUNGS MUST BE AVOIDED AS EVEN SMALL QUANTITIES MAY RESULT IN ASPIRATION PNEUMONITIS.

SIGNS AND SYMPTOMS:
IRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONCIOUSNESS AND DEATH MAY OCCUR. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABORED BREATHING AND CYANOSIS (BLUISH SKIN); IN SEVERE CASES DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS:
PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS:
NONE
SEE SECTION VI FOR SUPPLEMENTAL INFORMATION.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

COMP	OSHA		ACGIH		
NO.	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	OTHER
P	NOT ESTABLISHED				
1*	100 PPM		100 PPM		
A	25 PPM		25 PPM		

*RECOMMEND THAT LIMITS FOR STODDARD SOLVENT BE USED AS A GUIDE.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:
FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT:
REMOVE CONTAMINATED CLOTHING/SHOES. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED.

INHALATION:

REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICALATTENTION.

INGESTION:
DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GETMEDICAL ATTENTION.*

NOTE TO PHYSICIAN:
*IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

MALE RATS EXPOSED FOR 90 DAYS BY INHALATION TO VAPORS OF SOLVENTS SIMILAR TO COMPONENT 1 SHOWED EVIDENCE OF KIDNEY DAMAGE. THE RELEVANCE OF THIS EFFECT TO MAN IS UNKNOWN. IN ONE OF THE STUDIES A LOW GRADE ANEMIA WAS ALSO OBSERVED.

RATS EXPOSED FOR 4 MONTHS TO 1700 PPM OF A SOLVENT SIMILAR TO COMPONENT 2 SHOWED EVIDENCE OF MILD DAMAGE TO THE LIVER, LUNGS AND KIDNEYS. THESE EFFECTS WERE NOT SEEN IN RATS EXPOSED FOR ONE YEAR TO 350 PPM OF ANOTHER SIMILAR SOLVENT. RATS EXPOSED TO VAPORS OF A SIMILAR SOLVENT DURING PREGNANCY SHOWED EMBRYO/FETOTOXICITY AT CONCENTRATIONS PRODUCING MATERNAL TOXICITY.

IN RESPONSE TO A TSCA TEST RULE, SEVERAL STUDIES OF A COMPOUND SIMILAR TO COMPONENT 2 HAVE BEEN COMPLETED. MUTAGENICITY STUDIES ANDA RAT INHALATION NEUROTOXICITY STUDY WERE NEGATIVE. IN A MOUSE DEVELOPMENTAL EFFECTS STUDY, REDUCED FETAL BODY WEIGHT WAS SEEN BUT NO TERATOGENICITY. A RAT REPRODUCTIVE EFFECTS STUDY DEMONSTRATED TOXICITY BUT LITTLE EFFECT ON REPRODUCTIVE PARAMETERS.

SECTION VII PHYSICAL DATA

BOILING POINT (DEG F):	SPECFIC GRAVITY (H2O = 1):	VAPOR PRESSURE (MM HG):
320-357	0.791	4.6@100 DEG. F

MELTING POINT (DEG F):	SOLUBILITY IN WATER:	VAPOR DENSITY (AIR = 1):
NOT AVAILABLE	NEGLIGIBLE	4.8*

*ESTIMATED

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1): 0.47

APPEARANCE AND ODOR:
CLEAR LIQUID. HYDROCARBON ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: 103 DEG. F (TCC)

FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER: 0.7 UPPER: 6

EXTINGUISHING MEDIA:
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SUFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:
CAUTION. COMBUSTIBLE. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES ANDRUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION IX REACTIVITY

STABLITY: STABLE **HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION:
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

ADDITIONAL PROTECTIVE MEASURES:
USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA, THEN LAUNDER BEFORE REUSING.

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES:
CAUTION. COMBUSTIBLE. *** LARGE SPILLS *** ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS AND SEAL

TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTION AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

SECTION XII SPECIAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.
CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM.
STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.
WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETICS, OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA BEFORE LAUNDERING.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
CLASS 3 (FLAMMABLE LIQUIDS), III

DOT PROPER SHIPPING NAME:
PETROLEUM DISTILLATES, N.O.S. (PETROLEUM NAPHTHA)

OTHER REQUIREMENTS:
UN1268, GUIDE 128. THIS PRODUCT CONTAINS TRIMETHYLBENZENES (10%) WHICH ARE MARINE POLLUTANTS UNDER 49 CFR 172.101, APPENDIX B.

SECTION XIV OTHER REGULATORY CONTROLS

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.
PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.

SECTION XV STATE REGULATORY INFORMATION

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE LISTED COMPONENT	CAS NO.	PERCENT	STATE CODE
PSEUDOCUMENE	95-63-6	6V	CA, MA, PA

CA = CALIFORNIA HAZ. SUBST. LIST; CA65C, CA65R, CA65C/R = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT OF 1986 OR PROPOSITION 65 LIST; CT =

CONNECTICUT TOXIC. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.

SECTION XVI SPECIAL NOTES

THIS MSDS REVISION HAS CHANGES IN SECTION XIII.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

WE ARE PROVIDING OUR MOST RECENT MATERIAL SAFETY DATA SHEET AND/OR ENVIRONMENTAL DATA SHEET. IF YOU WISH TO RECEIVE UPDATES TO THIS INFORMATION, PLEASE CALL SHELL'S GENERAL MSDS ASSISTANCE LINE (713-241-4819) TO ENSURE THAT YOU ARE ADDED TO SHELL'S REGULAR MSDS DISTRIBUTION SYSTEM.

BE SAFE. READ OUR PRODUCT SAFETY INFORMATION...AND PASS IT ON. (PRODUCT LIABILITY LAW REQUIRES IT)

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4320
HOUSTON, TX. 77210

ENVIRONMENTAL DATA SHEET

SHELL EDS: 7550-01 06/13/89

SHELL MINERAL SPIRITS 135

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE
SHELL: 713-473-9461
CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE
SHELL: 713-241-4819

MANUFACTURER'S NAME AND ADDRESS

SHELL OIL COMPANY
PRODUCT SAFETY & COMPLIANCE
P.O. BOX 4320
HOUSTON, TX 77210

PRODUCT CODE: 83048

SECTION I PRODUCT COMPOSITION

NO.	COMPOSITION	CAS	PERCENT

P	SHELL MINERAL SPIRITS 135*	MIXTURE*	100
1	SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC	64742-88-7	85
2	SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	15
.	CONTAINS		
A	TRIMETHYLBENZENES	25551-13-7	8-10
B	PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)	95-63-6	6

*A COMPLEX COMBINATION OF PREDOMINATELY C8-C12 HYDROCARBONS; EXACT COMPOSITION WILL VARY.

SECTION II SARA TITLE III INFORMATION

NO.	EHS RQ (*1)	EHS TPQ (*2)	SEC-313 (*3)	313 CATEGORY (*4)	311/312 CATEGORY (*5)
P					H-1, H-2, P-3
B			YES		

*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC 302
*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302
*3 = TOXIC CHEMICAL, SEC 313
*4 = CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM
*5 = CATEGORY (FOR AGGREGATE REPORTING REQUIREMENTS UNDER SARA 311, 312)
HEALTH: H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD
H-2 = DELAYED (CHRONIC) HEALTH HAZARD
PHYSICAL: P-3 = FIRE HAZARD
P-4 = SUDDEN RELEASE OF PRESSURE HAZARD
P-5 = REACTIVE HAZARD

SECTION III ENVIRONMENTAL RELEASE INFORMATION

UNDER EPA-CWA, THIS PRODUCT IS CONSIDERED AN OIL UNDER SECTION 311. SPILLS INTO OR LEADING TO SURFACE WATERS THAT CAUSE A SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802.THIS MATERIAL IS COVERED BY CERCLA'S PETROLEUM EXCLUSION, THEREFORE, RELEASES TO AIR, LAND OR WATER ARE NOT REPORTABLE UNDER EPA-CERCLA ("SUPERFUND").

SECTION IV RCRA INFORMATION

UNDER EPA - RCRA (40 CFR 261.21), IF THIS PRODUCT BECOMES A WASTE MATERIAL, IT WOULD BE AN IGNITABLE HAZARDOUS WASTE, HAZARDOUS WASTE NUMBER D001. REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

DATE PREPARED: 06/13/89

SHELL OIL COMPANY
P.O. BOX 4320
HOUSTON, TX 77210

FOR ADDITIONAL INFORMATION ON THIS ENVIRONMENTAL DATA PLEASE CALL
(713) 241-2252

FOR EMERGENCY ASSISTANCE PLEASE CALL
SHELL: (713) 473-9461
CHEMTREC: (800) 424-9300

Material Safety Data Sheet
GENERAL MSDS FOR NON-HAZARDOUS POWDER REAGENTS

Section I

Product Name	No. 607, 623, 632, 634, 663, 672, 676, 725, AND 730		
Emergency Telephone No.	(616)241-4684	Date Issued	5/16/00
Manufacturer's Name and Address	Mitco, Inc. 1601 Steele S.W. Grand Rapids, MI 49507	Supersedes	1/15/96
		Chemical Family	Aqueous Mixture
Hazardous Material Description, Shipping Name Hazard Class, Hazard ID No. (49 CFR 172.101)	None		

Section II - HAZARDOUS INGREDIENTS

	Listed as Carcinogen or Potential Carcinogen						Reporting Required
Chemical Name CAS Registry Number	National Toxicology Program	I.A.R.C. Mono-graphs	OSHA	OSHA Permissible Exposure Limit	ACGIH Threshold Limit Value	Other Exposure Limit	Sec. 313 of Title III and 40CFR372
None							
N/A							
N/A							

Section III - PHYSICAL DATA

Boiling Point (°F)	N/A	Specific Gravity (H_2O = 1)	N/A
Vapor Pressure (mm Hg.)	N/A	Percent, Volatile By Volume (%)	N/A
Vapor Density (AIR=1)	N/A	Evaporation Rate (WATER = 1)	N/A
Solubility in Water	Complete	pH	N/A
Appearance and Odor	Powders of various colors and no odors.		

Section IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F)	None	Flammable Limits	LEL	N/A
Method Used	N/A		UEL	N/A
Extinguishing Media	Not Flammable			
Special Fire Fighting Procedures	N/A			
Unusual Fire and Explosion Hazards	N/A			

N/A = Not Applicable

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MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: MM-337 ANTIFOAM updated 1/1/04

PROPER SHIPPING NAME: 49 CFR 172.101 NONE
D.O.T. HAZARD NAME: 49 CFR 172.101 NON
D.O.T. HAZARD CLASS 49 CFR 172.101 (IF DISCARDED): NONE
RCRA HAZARD CLASS: NONE
E.P.A. PRIORITY POLLUTANTS 49 CFR 172.101: NONE
NFPA = NATIONAL FIRE PROTECTION ASSN.-704
CAS NO: PROPRIETARY BLEND
GENERIC DESCRIPTION ; ANTIFOAM

SECTION 2. HAZARD INGREDIENTS AS DEFINED IN 29 CFR 1910-1200

MINERAL OIL CAS# 64742 -54 7

ISHA PEL 5 MG/,3 (OIL MIST) 29 CFR 1910.1000
ACGIH TLV 5 MG/,3 (OIL MIST)

ADDITIONAL SARA REGULATORY COMPLIANCE INFORMATION
SECTION 312 HAZARD CLASS: NONE
SECTION 313 NOTIFICATION: NOT APPLICABLE -EITHER NONE PRESENT OR NONE IN REGULATED QUANTITIES

SECTION 3. PHYSICAL DATA

BOILING POINT : >510C
SPECIFIC GRAVITY (AT 25C) ; 0.87
MELTING POINT: N/A
VAPOR PRESSURE: (mmHg.): <O.1 MM
VAPOR DENSITY (AIR = 1 @ 25C) >5
% VOLATILE BY WEIGHT (%): <0.1
EVAPORATION RATE (BUTYL ACETATE =1); <1
SOLUBILITY IN WATER (%): EMULSIFIES
COLOR, APPEARANCE & ODOR: OPAQUE AMBER LIQUID WITH MILD ODOR

SECTION 4. FIRE AND EXPLOSION DATA

FLASH POINT: 380 F, C0C
AUTO IGNITION: > 510F

FLAMMABILITY LIMITS IN AIR: LOWER: 0.9% UPPER: 7.0%
EXTINGUISHING MEDIA: WATER SPRAY *FOG) FOAM, DRY CHEMICALS AND C02
UNUSUAL FIRE & EXPLOSION H HAZARDS: NONE
COMMENTS: USE WATER SPRAY TO COOL DIRE EXPOSED CONTAINERS. WEAR SELF CONTAINED BREATHING APPARATUS WHEN FIGHTING FIRE IN CONTAINED AREAS.

SECTION 5. REACTIVITY

STABILITY: STABLE
HAZARDOUS DECOMPOSITION: CO2 AND CO
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
INCOMPATIBILITY: (MATERIAL TO AVOID) STRONG OXIDANTS
CONDITIONS TO AVOID: NONE

SECTION 6. EFFECTS OF OVEREXPOSURE

EYES: IRRITATION – FLUSH IMMEDIATELY WITH PLENTY OF WARM WATER

INHALATION: IRRITATION TO RESPIRATORY PASSAGES IF DUST OR MIST IS MORE THAN .05 MG/M3. NO INJURY IS LIKELY FROM RELATIVELY SHORT EXPOSURE OF LESS THAN 8 HOURS.

ORAL SMALL AMOUNTS TRANSFERRED TO THE MOUTH DURING USE SHOULD NOT CAUSE INJURY. INGESTION OF LARGE AMOUNTS MAY CAUSE DIGESTIVE DISCOMFORT, CONTACT A PHYSICIAN.

COMMENTS: NO KNOWN ADVERSE CHRONIC HEALTH EFFECTS HOWEVER, UNNECESSARY EXPOSURE TO ANY CHEMICAL SHOULD BE AVOIDED. THIS PRODUCT AS WITH ANY CHEMICAL, MAY ENHANCE ALLERGIC CONDITIONS ON CERTAIN PEOPLE.
WE DO NOT KNOW OF ANY MEDICAL CONDITIONS THAT MIGHT BE CAUSED BY EXPOSURE TO THIS PRODUCT.

SECTION 7. EMERGENCY FIRST AID

EYES: FLUSH IMMEDIATELY WITH WARM WATER

SKIN: WIPE OFF, THEN WASH SOAP AND WATER

INHALATION: REMOVE TO FRESH AIR

ORAL: IF INGESTED, DRINK TWO GLASSES OF WATER, DO NOT INDUCE VOMITING. IF GASTROINTESTINAL SYMPTOMS DEVELOP, CONSULT A PHYSICIAN.

COMMENTS: CONTACT PHYSICIAN IS SYMPTOMS PERSIST

SECTION 8. ROUTINE HANDLING PRECAUTIONS

PROTECTIVE EQUIPMENT

EYES: USE PROPER PROTECTION (SAFETY GLASSES AS MINIMUM)

SKIN:
USE CHEMICAL RESISTANT GLOVES AND APRON.
WASH WITH SOAP AND WATER BEFORE MEAL TIMES AND AT THE END OF EACH WORK SHIFT. GOOD MANUFACTURING PRACTICES REQUIRE THAT GROSS AMOUNTS OF ANY CHEMICAL BE REMOVED FROM THE SKIN AS SOON AS PRACTICAL, ESPECIALLY BEFORE EATING OR SMOKING.
INHALATION:
NO RESPIRATORY PROTECTIONS SHOULD BE REQUIRED AT AMBIENT TEMPERATURES.
MAINTAIN A 5 MG/METER, USE NIOSH AIR RESPIRATOR FOR EXPOSURE TO HOT VAPORS.
MECHANICAL (GENERAL) :
RECOMMENDED (OIL MIST)

VENTILATION –
LOCAL EXHAUST SHOULD BE SUFFICIENT AT AMBIENT TEMPERATURES TO MAINTAIN <5 MG/M3
MECHANICAL(GENERAL): RECOMMENDED(OIL MIST)
SUITABLE RESPIRATOR: NONE SHOULD BE NEEDED

SUITABLE RESPIRATORY: NONE SHOULD BE NEEDED

THE ABOVE PRECAUTIONS ARE FOR ROOM TEMPERATURE HANDLING, USE AT ELEVATED TEMPERATURES OR AEROSOL/SPRAY APPLICATIONS, MAY REQUIRE ADDED PRECAUTIONS

SECTION 9. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE AS A COMBUSTIBLE LIQUID.

KEEP AWAY FROM HEAT SOURCES OF IGNITION. AVOID PROLONGED REPEATED SKIN CONTACT. USE REASONABLE CARE AND CAUTION. KEEP CONTAINER CLOSED WHEN NOT IN USE. AVOID SPILLING DURING TRANSFER AND STIRRING AS ANY QUANTITY OF SPILLED MATERIAL IS SLIPPERY. CONTAIN SPILL IMMEDIATELY AND APPLY DRY ASBSORBENT, THEN SWEEP UP, SCRUB AND CLEAN AREA WITH HIGH PRESSURE WATER.

SECTION 10. SPILL, LEAK, & WASTE PROCEDURES

CONTAIN SPILL AND ABSORB ON INERT MATERIAL.
WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

D.O.T. (49 CFR 171.8) E.P.A. (40 CFR 117) SPILL REPORTING INFORMATION

HAZARDOUS SUBSTANCE : (NOT A RCRA HAZARD WASTE IF UNCONTAMINATED
REPORTING QTY: N/A
CONCENTRATION OF HAZARDOUS SUBSTANCE: N/A

SECTION 11. COMMENTS

THIS DATA IS OFFERED IN GOOD FAITH AS TYPICAL AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EITHER EXPRESSED OR IMPLIED IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.

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MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: MM - 655

HMIS HEALTH –1 FLAMMABILITY -- 1 RACTIVITY 0

CAS# N/A

GENERIC DESCRIPTION : FORMULATLED FOOD PROCESSING ANTIFOAM.

II. COMPOSITION

MATERIAL	%	CAS Number	LD_{50}	LC_{50}
WHITE MINERAL OIL	30-50	8042-47-5	Oral (rat) > 5000 mg/kg Dermal (rabbit) > 2000 mg/kg	NA
HYDROPHOBIC SILICA	5-10	67762-90-7		
EMULSIFIERS	5-15	NA		
WATER	30-50	7732-18-5		

III. HAZARD IDENTIFICATION

ROUTE OF ENTRY		SKIN CONTACT		SKIN ABSORPTION	☒	EYE CONTACT		INHALATION		INGESTION

EMERGENCY OVERVIEW	Not expected to present a hazard under anticipated use conditions. If swallowed contact a physician. Aspiration of material into the lungs can cause severe damage. Spills can cause a slipping hazard.
POTENTIAL HEALTH EFFECTS	SKIN CONTACT: No significant adverse health effects are expected from short-term exposure. INHALATION: No significant adverse health effects are expected from short-term exposure. EYE CONTACT: Liquid mists and sprays may cause eye irritation. INGESTION: If swallowed no significant adverse health effects are anticipated. A laxative effect may result. However, aspiration during ingestion or vomiting can cause serious lung damage. CONDITIONS AGGRAVATED BY EXPOSURE: None known CARCINOGENIC POTENTIAL: This product contains no component >0.1% which is considered carcinogenic by OSHA, IARC or NTP.

IV. FIRST AID MEASURES

INHALATION	In case of overexposure, remove the person to fresh air.
EYE CONTACT	Check for and remove contact lenses. Flush eyes with cool, clean water while occasionally lifting and lowering the eyelids. Seek medical attention if excessive tearing, redness or pain persists.
SKIN CONTACT	Remove contaminated clothing. Wipe off excess material. Wash skin with soap and water. Thoroughly clean contaminated clothing prior to reuse. Discard contaminated leather goods. If material is injected beneath the skin seek immediate medical attention.
INGESTION	Do not give anything to drink unless advised by physician. If significant amounts are ingested seek medical help immediately.
NOTES TO PHYSICIAN	This material is a significant aspiration hazard. Treatment may involve careful gastric lavage if performed soon after ingestion or in comatose or patients at risk of convulsing. Protect airway by placement in Trendelenburg and left lateral decubitis position or by cuffed endotracheal intubation. Subcutaneous or intramuscular injection requires prompt surgical debridement.

V. FIRE FIGHTING MEASURES

NFPA FLAMMABILITY CLASSIFICATION	NFPA CLASS – IIIB COMBUSTIBLE MATERIAL. SLIGHTLY COMBUSTIBLE
FLASH POINT/ METHOD	177°C (351°F) / Open cup
LOWER FLAMMABILITY LIMIT	NA
UPPER FLAMMABILITY LIMIT	NA
AUTOIGNITION TEMPERATURE	AP 400°C (752°F)
HAZARDOUS DECOMPOSITION PRODUCTS	CO_2, CO, SMOKE, FUMES, UNBURNED HYDROCARBONS
SPECIAL PROPERTIES	This material can burn but will not readily ignite. It will produce flammable vapors when heated above its flash point. In enclosed spaces heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point.
EXTINGUISHING MEDIA	Dry chemical, Carbon Dioxide or water fog
PROTECTION OF FIREFIGHTERS	NIOSH approved positive pressure self-contained breathing apparatus and full bunker gear.

VI. ACCIDENTAL RELEASE MEASURES

Do not handle damaged containers or spilled material without appropriate protective equipment. Stop leaks if you can do so without risk. For small spills, absorb or cover with dry earth, sand or other inert absorbent and place in containers for disposal.
Contain large spills to prevent entry into waterways or sewers.

VII. HANDLING AND STORAGE

HANDLING: Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to flames, sparks, heat or other ignition sources. Dispose of unused contents and containers in compliance to state, federal and local regulations.

STORAGE: Do not store with strong oxidizing agents or at temperatures > 120 °F or in direct sunlight for extended periods.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls	Provide exhaust ventilation to keep concentration of mists or vapors within established limits. An eye wash station should be near work areas using this product.
Personal Protective equipment	Safety glasses, Non absorbent clothing, Chemical resistant gloves
Eye Protection	Safety glasses with side shield
Hand Protection	Nitrile rubber gloves or equivalent
Body Protection	Clean and impervious such as a lab coat.
Respiratory Protection	Not required under normal operating conditions
General Comments	Wash hands with soap and water after using this product and before eating, drinking or smoking.
Occupational Exposure Guidelines	
ACGIH (USA)	TWA: 5 mg/m^3 STEL: 10mg/m^3 (Oil mist)
OSHA (USA)	TWA: 5 mg/m^3 (Oil mist)

IX. PHYSICAL DATA

Physical state	Odor and Appearance		Odor Threshold (ppm)
LIQUID	Mild organic odor, opaque white liquid		NA
Specific Gravity	Vapor Density (air=1)	Vapor Pressure (mm Hg)	Evaporation Rate (Butyl acetate = 1)
0.90 – 1.0	NA	NA	NA
Boiling Point °C	Freezing Point °C	pH	Water Solubility
100°C	0°C	NA	EMULSIFIES

X. STABILITY AND REACTIVITY

Chemical Stability	Stable
Hazardous Polymerization	Not expected to occur
Conditions to Avoid	Keep away from heat, sparks, open flame and strong oxidizing conditions
Materials Incompatibility	Strong Oxidizers
Hazardous Decomposition Products	CO_2, CO, SMOKE,FUMES, UNBURNED HYDROCARBONS AND TRACE OXIDES OF SULFUR OR NITROGEN

XI. TOXICOLOGICAL INFORMATION

See also section II above.

Mineral oil mists are reported to have low acute and subacute toxicities in animals. Effects from single and short term exposure to high concentrations of mineral oil mists well above applicable workplace limits include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. Exposure at lower levels at or near workplace limits produced no significant toxicological effects. Long term (up to two years) exposure produced no reported carcinogenic effects in any animal species tested.

XII. ECOLOGICAL INFORMATION

Analysis of ecological impact has not been done on this product.

XIII. DISPOSAL CONSIDERATIONS

Hazard characteristics and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

Conditions of use may cause this material to become a "hazardous waste" as defined by Federal and State regulations. It is the user's responsibility to determine if the material is a RCRA "hazardous waste" at the time of disposal. Transportation, treatment, storage and disposal of waste material must be conducted in accordance with RCRA regulations (40CFR 260 through 40 CFR 271). State and local regulations may be more restrictive. Contact the RCRA/Superfund hotline at (800) 424-9346 or your regional EPA office for guidance concerning specific disposal issues.

XIV. TRANSPORTATION INFORMATION

DOT STATUS	Not regulated	PACKING GROUP(S)	Not applicable
PROPER SHIPPING NAME	Not regulated	UNNA ID	Not applicable
HAZARD CLASS	Not regulated	EMERGENCY RESPONSE GUIDE NO.	Not applicable
REPORTABLE QUANTITY	Not established	HAZMAT STTC NO.	Not assigned
PLACARDS (USA)	None required	MARPOL III STATUS	Not a DOT "Marine Polluant" per 49CFR 171.8

XV. REGULATORY INFORMATION

TSCA INVENTORY	ALL COMPONENTS ARE LISTED ON THE TSCA INVENTORY	CERCLA	NO COMPONENT IDENTIFIED
SARA 302/304	NO COMPONENT IDENTIFIED	CWA	Under Section 311 of the Clean Water Act this material is classified as an oil and spills into water ways that produce a visible sheen must be reported
SARA 311/312	NO HAZARD IDENTIFIED	CALIFORNIA PROPOSITION 65	NO COMPONENT IDENTIFIED
SARA 313	NO COMPONENT IDENTIFIED	NEW JERSEY RIGHT TO KNOW	PETROLEUM OIL

XVI. OTHER INFORMATION

DISCLAIMER OF LIABILITY

The information in this MSDS was obtained from sources, which we believe to be reliable. However, the information is provided without any warranty, expressed or implied regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. Users should make their own investigations to determine the suitability of the information or product for their particular purpose.

The conditions or methods of handling, storage, use and disposal are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with handling, storage, use or disposal of this product.

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MM-602

HMIS CODE: Health=0 Flammability=1 Reactivity: 0

CAS# : N/A

2. HAZARDOUS INGREDIENTS (29 CFR 1910.1200)

Material	%	CAS#	LD_{50}	LC_{50}
Soybean Oil	70-90	8016-70-4	n/a	n/a
White Mineral Oil	<5	80042-47-5	Oral (rat) >5000 mg/Kg	N/a

3. HAZARDS IDENTIFICATION

Route of Entry (x) Skin Contact ( ) Skin Absorption (x) Eye Contact ( ) Inhalation
( ) Ingestion

Emergency Overview: Not expected to present a hazard under anticipated use conditions. If swallowed contact a physician. Aspiration into the lungs can cause severe damage. Spills can cause a slipping hazard.

WHMIS SYMBOL : Division 3-Flammable Liquid

Potential Health Effects
Skin Contact: May cause mild irritation

Inhalation: No Significant adverse health effects are expected from short-term exposure. Aspiration could cause lung damage.

Eye Contact: Liquid mists and sprays can cause eye irritation

Ingestion: If swallowed no significant adverse health effects are anticipated. A laxative effect may result.

Conditions aggravated by exposure: None Known

Carcinogenic potential: This product contains no component >0.1% which is considered carcinogenic by Osha, IRC, or NTP

4. FIRST AID MEASURES

Inhalation: In case of overexposure, remove the person to fresh air

Eye Contact: Check for and remove contact lenses. Flush eyes with cool clean water while occasionally lifting and lowering the eyelids. Seek Medical attention if excessive tearing, redness, or pain persists

Skin Contact: Remove contaminated clothing. Wipe off excess material. Wash skin with soap and water. Thoroughly clean contaminated clothing prior to reuse

Ingestion: Do not give anything to drink unless advised by a physician. If significant symptoms develop after this material is ingested, seek medical attention

5. FIRE FIGHTING MEASURES

NFPA FLAMMABILITY CLASSIFICATION: NFPA CLASS – IIIB COMBUSTIBLE MATERIAL SLIGHTLY COMBUSTIBLE

FLASH POINT/METHOD:	282C (540F) OPEN CUP
LOWER FLAMMABILITY LIMIT	N/A
UPPER FLAMMABILITY LIMIT	N/A
AUTO IGNITION TEMPERATURE	N/A
HAZARDOUS DECOMPOSITION PRODUCTS	CO_2 CO SMOKE, FUMES
SPECIAL PROPERTIES	N/A
EXTINGUISHING MEDIA	DRY CHEMICAL CARBON DIOXIDE OR FOAM
PROTECTION OF FIRE FIGHTERS	NIOSH APPROVED POSITIVE PRESSURE SELF CONTAINED BREATHING APPARATUS AND FULL BUNKER GEAR

6. ACCIDENTAL RELEASE MEASURES

DO NOT HANDLE DAMAGED CONTAINERS OR SPILLED MATERIAL WITHOUT APPROPRIATE PROTECTIVE EQUIPMENT. STOP LEAKS IF YOU CAN DO SO WITHOUT RISK. FOR SMALL SPILLS, ABSORB OR COVER WITH DRY EARTH, SAND, OR OTHER INERT ABSORBENT AND PLACE IN CONTAINERS FOR DISPOSAL. CONTAIN LARGE SPILLS TO PREVENT ENTRY INTO WATERWAYS OR SEWERS

SOILED RAGS, PAPER, CLAY AND OTHER ABSORBENTS SATURATED WITH THIS MATERIAL REPRESENT A SPONTANEOUS COMBUSTION HAZARD

7. HANDLING AND STORAGE

HANDLING:
DO NOT PRESSURIZE, CUT, WELD, BRAZE, DRILL, GRIND OR EXPOSURE CONTAINERS TO FLAMES, SPARKS, HEAT OR OTHER IGNITION SOURCES. DISPOSE OF UNUSED CONTENTS AND CONTAINERS IN COMPLIANCE TO STATE, FEDERAL AND LOCAL REGULATIONS

STORAGE: DO NOT STORE WITH STRONG OXIDIZING AGENTS OR AT TEMPERATURES > 120F OR IN DIRECT SUNLIGHT FOR EXTENDED PERIODS

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: PROVIDE EXHAUST TO KEEP CONCENTRATION OF MISTS OR VAPORS WITHIN ESTABLISHED LIMITS. AN EYE WASH STATION SHOULD BE NEAR WORK AREAS USING THIS PRODUCT

PERSONAL PROTECTIVE EQUIPMENT: SAFETY GLASSES, NON-ABSORBENT CLOTHING, CHEMICAL RESISTANT GLOVES

HAND PROTECTION SAFETY	NITRILE GLOVES OR EQUIVALENT
EYE PROTECTION	GLASSES WITH SIDE SHIELD
BODY PROTECTION	CLEAN AND IMPERVIOUS SUCH AS A LAB COAT
RESPIRATORY PROTECTION:	NOT REQUIRED UNLESS RESPIRABLE MISTS ARE GENERATED

GENERAL COMMENTS – WASH HANDS WITH SOAP AND WATER AFTER USING THIS PRODUCT AND BEFORE EATING, DRINKING OR SMOKING

OCCUPATIONAL EXPOSURE GUIDELINES:
OSHA (USA) PEL: 15 MG/M^3 (VEGETABLE OIL OR MIST TOTAL)
5 MG/M^3 (RESPIRABLE FRACTION)

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	ODOR & APPEARANCE	ODOR THRESHOLD (PPM)
LIQUID	MILD ORGANIC ODOR, OPAQUE AMBER LIQUID	N/A

SPECIFIC GRAVITY: 0.95-0.98
VAPOR DENSITY (AIR=1) N/A
VAPOR PRESSURE (MMHG) <0.1 MM
EVAPORATION RATE (BUTYL ACETATE = 1) N/A
BOILING POINT: >200C
FREEZING POINT C: N/A
PH : N/a
WATER SOLUBILITY: EMULSIFIES

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: STABLE
HAZARDOUS POLYMERIZATION: NOT EXPECTED TO OCCUR
CONDITIONS TO AVOID: KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME AND STRONG OXIDIZING CONDITIONS

MATERIAL INCOMPATIBILITY: STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS: CO^2, CO, SMOKE, FUMES

11. TOXICOLOGICAL INFORMATION

VEGETABLE OIL IS THE PRINCIPAL INGREDIENT AND IS NOT TOXIC, EDIBLE MATERIAL

12. ECOLOGICAL INFORMATION

ANALYSIS OF ECOLOGICAL IMPACT HAS NOT BEEN ON THIS PRODUCT

13. DISPOSAL CONSIDERATIONS

HAZARD CHARACTERISTICS AND REGULATORY WASTE STREAM CLASSIFICATION CAN CHANGE WITH PRODUCT USE. ACCORDINGLY, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE PROPER STORAGE, TRANSPORTATION, TREATMENT, AND OR DISPOSAL METHODOLOGIES FOR SPENT MATERIALS AND RESIDUES AT THE TIME OF DISPOSITION.

CONDITIONS OF USE MAY CAUSE THIS MATERIAL TO BECOME A "HAZARDOUS WASTE" AS DEFINED BY THE FEDERAL AND STATE REGULATIONS. IT IS THE USER'S RESPONSIBILITY TO DETERMINE IF THE MATERIAL IS A RCRA "HAZARDOUS WASTE" AT THE TIME OF DISPOSAL. TRANSPORTATION, TREATMENT, STORAGE AND DISPOSAL OF WASTE MATERIAL MUST BE CONDUCTED IN ACCORDANCE WITH RCRA REGULATIONS (40CFR 260 THROUGH 40 CFR 271). STATE AND LOCAL REGULATIONS MAY BE MORE RESTRICTIVE. CONTACT THE RCRA/SUPERFUND AT 800-424-9346 OR YOUR REGIONAL EPA OFFICE FOR GUIDANCE CONCERNING SPECIFIC DISPOSAL ISSUES.

RAGS, PAPER, INSULATION, CLAY OR OTHER MATERIALS SATURATED WITH THIS MATERIAL SHOULD BE STORED IN APPROVED SAFETY CONTAINERS OR DRIED INDIVIDUALLY IN A WELL VENTILATED AREA TO AVOID SPONTANEOUS COMBUSTION

14. TRANSPORT INFORMATION

DOT STATUS:	NON REGULATED
PACKING GROUP(S)	N/A
UNNA ID	N/A
HAZARD CLASS	N/A
EMERGENCY RESPONSE GUIDE #	N/A
REPORTABLE QUANTITY	NOT ESTABLISHED
PLACARD(S)	NONE REQUIRED
MARPOL III STATUS	NOT A DOT MARINE POLLUTANT ER 49 CFR 171.8

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

15. REGULATORY INFORMATION

TSCA INVENTORY:	ALL COMPONENTS ARE LISTED ON THE TSCA INVENTORY
CERCLA	NO COMPONENT IDENTIFIED
SARA 302/304	NO COMPONENT IDENTIFIED
CWA	NO COMPONENT IDENTIFIED

SARA 311/312	NO HAZARD IDENTIFIED
CALIFORNIA PROPOSITION 65	NO COMPONENT IDENTIFIED
SARA 313	NO COMPONENT IDENTIFIED
NEW JERSEY RIGHT TO KNOW	VEGETABLE OIL PETROLEUM OIL

16. OTHER INFORMATION

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

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MATERIAL SAFETY DATA SHEET

Rev. DATE 3/5/05

PRODUCT NAME **MM-2236UH**

1. CHEMICAL PRODUCT

CHEMICAL NAME AND SYNONYMS
ANIONIC POLYACRYLAMIDE
MOLECULAR FORMULA: MIXTURE
MOLECULAR WEIGHT: MIXTURE

FORMULA
PROPRIETARY

2. COMPOSITION / INFORMATION ON INGREDIENTS

WHMIS REGULATED COMPONENTS

COMPONENT	CAS #	%(W/W)	TWA/CEILING	REFERENCE
PETROLEUM DISTILLATE HYDROTREATED LIGHT	064742-47-8	22.0-25.0	500 PPM	OSHA
AMMONIUM HYDROXIDE	001336-21-6	0.15-1.0	NOT ESTABLISHED	

3. HAZARDS IDENTIFICATION

EMG. OVERVIEW
APPEARANCE & ODOR: OPAQUE, WHITE LIQUID, PETROLEUM DISTILLATES ODOR

STATEMENTS OF HAZARD:
WARNING: CAUSES SKIN IRRITATION
MAY CAUSE EYE IRRITATION

POTENTIAL HEALTH EFFECTS
EFFECTS OF EXPOSURE
THE ESTIMATE ACUTE ORAL (RAT) LD50,A CUTE DERMAL RABBIT) LD50 AND 4-HOUR INHALATION (RAT) LC50 VALUES FOR THIS MATERIAL ARE >5000 mg/kg, >2,000 mg/kg and >20 mg/l, RESPECTIVELY.
INHALATION OVEREXPOSURES MAY CAUSE IRRITATION OF THE RESPIRATORY TRACT AND EYES.
DIRECT CONTACT WITH THIS MATERIAL CAN CAUSE MODERATE SKIN AND MILD EYE IRRITATION.
REEFER TO SECTION 11 FOR TOXICOLOGY INFORMATION OF THE REGULATED COMPONENTS OF THIS PRODUCT.

4. FIRST AID MEASURES

IF SWALLOWED, CALL A PHYSICIAN IMMEDIATELY. ONLY INDUCE VOMITING AT THE INSTRUCTION OF A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUSNESS PERSON. IN CASE OF SKIN CONTACT, REMOVE CONTAMINATED CLOTHING WITHOUT DELAY. FLUSH SKIN THOROUGHLY WITH WATER. DO NOT REUSE CLOTHING WITHOUT LAUNDERING. GET MEDICAL ATTENTION IF PAIN OR IRRITATION PERSISTS AFTER WASHING OR IF SIGNS AND SYMPTOMS OF OVER EXPOSURE APPEAR.

IN CASE OF EYE CONTACT, IMMEDIATELY IRRIGATE WITH PLENTY OF WATER FOR 15 MINUTES

IF VAPOR OR DUST _ OF THIS MATERIAL IS INHALED REMOVE FROM EXPOSURE. ADMINISTER OXYGEN IF THERE IS DIFFICULTY IN BREATHING. OBTAIN MEDICAL ATTENTION IMMEDIATELY IF NECESSARY.

SECTION 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASH POINT: >213 F 101 C
METHOD: PESKY MARTENS CLOSED CUP

FLAMMABLE LIMITS (% BY VOLUME) N/A
AUTO IGNITION TEMP: N/A
DECOMPOSITION TEMP: N/A
MECHANICAL / STATIC SENSITIVITY: NONE

EXTINGUISHING MEDIA AND FIRE FIGHTING INSTRUCTIONS
USE WATER SPRAY, CARBON DIOXIDE OR DRY CHEMICAL TO EXTINGUISH FIRES. USE WATER TO KEEP CONTAINERS COOL. WEAR SELF CONTAINED P[POSITIVE PRESSURE BREATHING APPARATUS AND FULL FIRE FIGHTING PROTECTIVE CLOTHING. SEE SECTION 8 (EXPOSURE CONTROLS/PERSONAL PROTECTION) FOR SPECIAL PROTECTIVE CLOTHING.

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
WHERE EXPOSURE LEVEL IS KNOWN KNOW, WEAR NIOSH APPROVED, POSITIVE PRESSURE SELF CONTAINED RESPIRATOR, SUITABLE FOR LEVEL OF EXPOSURE. IN ADDITION TO THE PROTECTIVE CLOTHING/EQUIPMENT IN SECTION 8 (EXPOSURE CONTROLS/PERSONAL PROTECTION)WEAR IMPERIOUS BOOTS. SPILLS OF THIS PRODUCT ARE VERY SLIPPERY. SPILLED MATERIAL SHOULD BE ABSORBED ONTO AN INERT MATERIAL AND SCOOPED UP. THE AREA SHOULD BE THOROUGHLY FLUSHED WITH WATER AND SCRUBBED TO REMOVE RESIDUE. IF SLIPPERINESS REMAINS APPLY MORE DRY SWEEPING COMPOUND.

SECTION 7. HANDLING AND STORAGE

AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. WASH THOROUGHLY AFTER HANDLING.
TO AVOID PRODUCT DEGRADATION AND EQUIPMENT CORROSION, DO NOT USE IRON, COPPER OR ALUMINUM CONTAINERS OR EQUIPMENT.

OSHA REGULATIONS (29 CFR 106.a.14) REQUIRE THAT THE FLASH POINT OF MATERIALS OF THIS TYPE BE DETERMINED BY THE PENSKY-MATERNS CLOSED TESTER METHOD. THE TEST FOR THIS PRODUCT INDICATES IT HAS A FLASH POINT GREATER THAN 200F (93.3C). ALTHOUGH THERE WAS NO FLASH POINT DETECTED BELOW 200F(93.3C) BY THE PESKY - MARTENS CLOSED TESTER METHOD, SOME FLAMMABLE VAPORS WERE EVOLVED DURING THE TEST AS EVIDENCED BY THE ENLARGEMENT OF THE TEST FLAME, THEREFORE, CAUTION SHOULD BE EXERCISED IN STORAGE AND HANDLING.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS & PERSONAL PROTECTIVE EQUIPMENT (PPE)
WHERE THE MATERIAL IS NOT USED IN A CLOSED SYSTEM, GOOD ENCLOSURE AND LOCAL EXHAUST VENTILATION SHOULD BE PROVIDED TO CONTROL EXPOSURE. FOOD BEVERAGES AND TOBACCO PRODUCTS SHOULD NOT BE CARRIED, STORED OR CONSUMED WHERE THIS MATERIAL IS IN USE. BEFORE EATING, DRINKING OR SMOKING, WASH FACE AND HANDS WITH SOAP AND WATER. AVOID SKIN CONTACT. PROTECTIVE CLOTHING SUCH AS IMPERVIOUS GLOVES, APRON, WORK PANTS, LONG SLEEVE WORK SHIRT OR DISPOSABLE COVERALLS SUCH AS CHEMICAL SPLASH PROOF GOGGLES OR FACE SHIELD. EYE WASH EQUIPMENT AND SAFETY SHOWER SHOULD BE PROVIDE IN AREAS OF POTENTIAL EXPOSURE. WHERE EXPOSURES ARE BELOW THE PERMISSIBLE EXPOSURE LIMIT (PEL) NO RESPIRATORY PROTECTION IS REQUIRED. WHERE EXPOSITOR S EXCEED THE PEL, USE RESPIRATOR APPROVED BY NIOSH FOR THE MATERIAL AND LEVEL OF EXPOSURE. SEE "GUIDE TO INDUSTRIAL RESPIRATORY PROTECTION" (NIOSH)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: OPAQUE, WHITE LIQUID, PETROLEUM DISTILLATE ODOR
BOILING POINT: SIMILAR TO WATER
MELTING POINT: N/A
VAPOR PRESSURE: N/A
SPECIFIC GRAVITY: 1.03-1.06
VAPOR DENSITY: SIMILAR TO WATER
%VOLATILE (BY WT): 56-62
pH: 6-9.5
SATURATION IN AIR (% BY VOLUME) N/A
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: LIMITED BY VISCOSITY
VOLATILE ORGANIC CONTENT: ~ 25%
ODOR THRESHOLD- SEE SECTION 2 FOR PERMISSIBLE EXPOSURE LIMITS

SECTION 10. STABILITY & REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE KNOWN

POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBLE MATERIALS: NONE KNOWN

HAZARDOUS DECOMPOSITION/COMBUSTION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE, AMMONIA., OXIDES OF NITROGEN; OXIDES OF SULFUR (INCLUDES SULFUR DI & TRI OXIDES)

SECTION 11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION FOR THE PRODUCT IS FOUND UNDER SECTION 3. HAZARDS IDENTIFICATION.
TOXICOLOGICAL INFORMATION ON THE WHMIS REGULATED COMPONENTS OF THIS PRODUCT IS AS FOLLOWS:

PETROLEUM DISTILLATES, HYDROTREATED LIGHT (CAS# 64742-47-8) HAS ACUTE ORAL (RAT) AND DERMAL (RABBIT) LD50 VALUES OF >5G/KG AND 3.16 G/KG RESPECTIVELY. PROLONGED OR REPEATED SKIN CONTACT TENDS TO REMOVE SKIN OILS, POSSIBLY LEADING TO IRRITATION AND DERMATITIS. DIRECT CONTACT MAY CAUSE EYE IRRITATION. OVER EXPOSURE TO HIGH VAPOR CONCENTRATIONS, >~ 700 PPM, ARE IRRITATION TO THE EYES AND RESPIRATORY TRACT AND MAY CAUSE HEADACHES, DIZZINESS, DROWSINESS, AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DEATH. ASPIRATION OF MINUTE AMOUNTS DURING INGESTION OR VOMITING MAY CAS MILD TO SEVERE PULMONARY INJURY AND POSSIBLE DEATH. IN A 90 DAY ORAL GAVAGE (RATS) STUDY AT 100,500, OR 1000 MG/KG, NO TREATMENT RELATED MORALITIES WERE OBSERVED. THERE WERE NO SIGNIFICANT CHANGES IN BODY WEIGHTS OR FOOD CONSUMPTION IN ANY DOSE GROUPS. INCREASED LIVER WEIGHTS WERE OBSERVED IN MALE AND FEMALE RATS A 500 AND 1000 MG/KG. INCREASED KIDNEY WEIGHTS WERE OBSERVED ONLY IN MALE RATS AT 500 AND 1000 MG/KG. TESTES WEIGHTS WERE SIGNIFICANTLY ELEVATED IN MALE RATS AT 1000 MG/KG. KIDNEY EFFECTS, INDICATIVE OF LIGHT HYDROCARBON NEPHROPATHY, OCCURRED IN MALE RAT KIDNEYS AT ALL DOSE LEVELS, HISTOLOGICAL FINDINGS AT HEPATOCELLULAR HYPERTROPHY, WERE SEEN IN THE LIVERS OF MALE RATS AT 1000 MG/KG AND IN FEMALE RATS AT 500 AND 1000 MG/KG, ALL TREATMENT RELATED EFFECTS WERE REVERSIBLE WITHIN THE 4 WEEK RECOVERY PERIOD. OBSERVED KIDNEY EFFECTS (INCLUDING LIGHT HYDROCARBON NEPHROPATHY AND INCREASED KIDNEY WEIGHT) ARE A UNIQUE RESPONSE BY MALE RATS TO CHRONIC HYDROCARBON EXPOSURE, WHICH THE US EPA HAS CLEARED "NOT RELEVANT TO HUMANS:"
HIGH DOSE LIVER EFFECTS (INCLUDING HEPATOCELLULAR HYPERTROPHY OR ENLARGED LIVER CELLS) ARE A DIRECT CONSEQUENCE THE SUSTAINED HIGH FAT "HYDROCARBON DIET". THE NO OBSERVED ADVERSE EFFECT LEVEL (NOAEL) FOR THIS STUDY WAS 1000 MG/KG,
THE ACUTE ORAL LD50 (RAT) FOR AMMONIUM HYDROXIDE IS 350 MG/KG. AMMONIUM HYDROXIDE CAN CAUSE SEVERE SKIN AND EYE IRRITATION.

SECTION 12. ECOLOGICAL INFORMATION

NO AQUATIC LC50, BOD OR COD DATA AVAILABLE

OCTANOL H20 PARTITION DOEF: N/A

SECTION 13. DISPOSAL CONSIDERATIONS

MINERAL MASTERS ENCOURAGES THE RECYCLE AND REUSE OF MATERIALS WHERE PERMITTED AS A ALTERNATIVE OR DISPOSAL AS A WASTE. MINERAL MASTERS RECOMMENDS THAT ORGANIC MATERIALS CLASSIFIED AS HAZARDOUS WASTE ACCORDING TO THE RELEVANT LOCAL OR NATIONAL REGULATIONS BE DISPOSED OF BY THERMAL TREATMENT OR INCINERATION AT APPROVED FACILITIES. ALL LOCAL AND NATIONAL REGULATIONS SHOULD BE FOLLOWED.

SECTION 14. TRANSPORT INFORMATION

THIS SECTION PROVIDES BASIC SHIPPING CLASSIFICATION INFORMATION. REFER TO APPROPRIATE TRANSPORTATION REGULATIONS FOR SPECIFIC REQUIREMENTS

SHIPPING NAME	TRANSPORT CANADA NOT APPLICABLE /NOT REGULATED	ICAO/IATA NOT APPLICABLE /NOT REGULATED
HAZARD CLASS:	N/A	N/A
SUBSIDIARY CLASS:	N/A	N/A
UN/ID NUMBER	N/A	N/A
PACKING GROUP	N/A	N/A
TRANSPORT LABEL REQUIRED	NONE REQUIRED	NONE REQUIRED
PACKING INSTR.	N/A	PASSENGER: N/A CARGO: N/A
MAX NET QTY:	N/A	PASSENGER: N/A CARGO: N/A
SHIPPING NAME:	**D.O.T. SHIPPING INFORMATION** ENVIRONMENTALLY HAZARDOUS	**IMO SHIPPING INFORMATION** NON APPLICABLE/NON REGULATED
HAZARD CLASS /PKG GROUP	9 III	N/A
UN NUMBER	UN3082	N/A
IMDG PAGE	N/A	N/A
D.O.T. HAZARDOUS SUBSTANCES	(PRODUCT REPORTABLE QTY) AMMONIUM ACETATE (50,000#)	N/A
TRANSPORT LABEL REQUIRED:	MISC	NONE REQUIRED

ADDITIONAL TRANSPORT INFORMATION

TECHNICAL NAME (N.O.S.) (CONTAINS AMMONIUM ACETATE

COMMENTS: DOT NOT REGULATED IF LESS THAN REPORTABLE QTY (RQ) PER PACKAGE

SECTION 15. REGULATORY INFORMATION

THIS PRODUCT HAS BEEN CLASIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS AND THIS MATERIAL SAFETY DATA SHEET CONTAINS ALL THE INFORMATION REQUIRED BY THE CONTROLLED PRODUCTS REGULATIONS.

WHMIS CLASSIFICATION: CLASS D DIVISION 2B TOXIC

INVENTORY INFORMATION

CANADA DSL: COMPONENTS OF THIS PRODUCT HAVE BEEN REPORTED TO ENVIRONMENT CANADA IN ACCORDANCE WITH SUBSECTION 25 OF THE CANADIAN ENVIRONMENTAL PROTECTION ACT AND ARE IN INCLUDED ON THE DOMESTIC SUBSTANCES LIST.

US TSCA: ALL COMPONENTS OF THIS PRODUCT ARE INCLUDED ON THE TSCA INVENTORY IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT, 15 U.S.C. 2601 ET. SEQ.
THIS PRODUCT CONTAINS A CHEMICAL SUBSTANCE THAT IS SUBJECT TO EXPORT NOTIFICATION UNDER SECTION 12 (B) OF THE TOXIC SUBSTANCES CONTROL ACT, 15 U.S.C. 2 2601 ET SEQ. (THIS REQUIREMENT APPLIES TO EXPORTS FROM HE US ONLY)

EEC EINECS: ALL COMPONENTS OF THIS PRODUCT ARE INCLUDED IN THE EUROPEAN INVENTORY OF EXISTING CHEMICAL SUBSTANCES (EINECS) IN COMPLIANCE WITH COUNCIL DIRECTIVE 67/548/EEC AND ITS AMENDMENTS

SECTION 16. OTHER INFORMATION

NFPA HAZARD RATING (NATIONAL FIRE PROTECTION ASSOCIATION)
FIRE:1
FIRE; MATERIALS THAT MUST E PREHEATED BEFORE IGNITION CAN OCCUR
HEALTH:2 REACTIVITY:O
HEALTH: MATERIALS TAT, UNDER EMERGENCY CONDITIONS, CAN CAUSE TEMPORARY INCAPACITATION OR RESIDUAL INJURY.

SPECIAL-

REACTIVITY MATERIALS THAT IN THEMSELVES ARE NORMALLY STABLE, EVEN UNDER FIRE EXPOSURE CONDITIONS

THIS INFORMATION IS GIVEN WITHOUT ANY WARRANTY OR REPRESENTATION. WE DO NOT ASSUME ANY LEGAL RESPONSIBILITY FOR SAME, NOR DO WE GIVE PERMISSION, INDUCEMENT OR RECOMMENDATION PRACTICE ANY PATENTED INVENTION WITHOUT LICENSE. IT IS OFFERED SOLELY FOR OUR CONSIDERATION, INVESTIGATION AND VERIFICATION. BEFORE USING ANY PRODUCT, READ ITS LABEL

MINERAL MASTERS

130 W. GRAND LAKE BLVD. • WEST CHICAGO, IL. 60185
630-293-7727 Office • 630-293-7765 FAX

FOR CHEMICAL EMERGENCY. SPILL, LEAK, EXPOSURE, OR ACCIDENT, CALL CHEMTREC, 1-800-423-9300

MATERIAL SAFETY DATA SHEET

1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME :**MM-2306**

EMERGENCY TELEPHONE NUMBER(S) :(800) 424-9300 (24 Hours) CHEMTREC
NFPA 704M/HMIS RATING
HEALTH :0 / 1FLAMMABILITY :1 / 1INSTABILITY :0 / 0OTHER :0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

2.COMPOSITION/INFORMATION ON INGREDIENTS

Based on our hazard evaluation, none of the substances in this product are hazardous.

3.HAZARDS IDENTIFICATION

****EMERGENCY OVERVIEW**CAUTION**

May cause irritation with prolonged contact. Toxic to aquatic organisms.
Do not get in eyes, on skin, on clothing. Do not take internally. Wear suitable protective clothing.
Keep container tightly closed. Water in contact with the product will cause slippery floor conditions.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
After contact with skin, wash immediately with plenty of soap and water.
May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. Water in contact with the product will cause slippery floor conditions.
PRIMARY ROUTES OF EXPOSURE :
Eye, Skin

HUMAN HEALTH HAZARDS - ACUTE :

EYE CONTACT :
May cause irritation with prolonged contact.

SKIN CONTACT :
May cause irritation with prolonged contact.

INGESTION :
Not a likely route of exposure. No adverse effects expected.

INHALATION :
Not a likely route of exposure. No adverse effects expected.

SYMPTOMS OF EXPOSURE :
Acute :
A review of available data does not identify any symptoms from exposure not previously mentioned.

Chronic :
Frequent or prolonged contact with product may defat and dry the skin, leading to discomfort and dermatitis.

AGGRAVATION OF EXISTING CONDITIONS :
Skin contact may aggravate an existing dermatitis condition.

4.FIRST AID MEASURES
EYE CONTACT :
Flush affected area with water. If symptoms develop, seek medical advice.

SKIN CONTACT :
Flush affected area with water. If symptoms develop, seek medical advice.

INGESTION :
Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink.

If symptoms develop, seek medical advice.

INHALATION :
Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

NOTE TO PHYSICIAN :
Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

5.FIRE FIGHTING MEASURES
Flash Point : > 200 °F / > 93 °C (PMCC)
EXTINGUISHING MEDIA :
This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for surrounding fire.

FIRE AND EXPLOSION HAZARD :
May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. Water in contact with the product will cause slippery floor conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING :
In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

6.ACCIDENTAL RELEASE MEASURES
PERSONAL PRECAUTIONS :
Notify appropriate government, occupational health and safety and environmental authorities.
Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection).

METHODS FOR CLEANING UP :
SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. LARGE SPILLS: Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS :
This product is toxic to fish. It should not be directly discharged into lakes, ponds, streams, waterways or public water supplies.

7.HANDLING AND STORAGE

HANDLING :
Avoid eye and skin contact. Do not take internally. Ensure all containers are labelled. Keep the containers closed when not in use.

STORAGE CONDITIONS :
Store the containers tightly closed.

8.EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS :
This product does not contain any substance that has an established exposure limit.

ENGINEERING MEASURES :
General ventilation is recommended.

RESPIRATORY PROTECTION :
Respiratory protection is not normally needed. If significant mists, vapors or aerosols are generated an approved respirator is recommended. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

HAND PROTECTION :
Neoprene gloves, Nitrile gloves, Butyl gloves, PVC gloves

SKIN PROTECTION :
Wear standard protective clothing.

EYE PROTECTION :
Wear chemical splash goggles.

HYGIENE RECOMMENDATIONS :
Keep an eye wash fountain available. Keep a safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

9.PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE Viscous liquid
APPEARANCE Off-white
ODOR None

SPECIFIC GRAVITY 1.02 @ 86 °F / 30 °C DENSITY 8.48 lb/gal SOLUBILITY IN WATER Partially miscible pH ()4.0 - 5.0VISCOSITY 685 cps @ 72 °F / 22 °C
Note: These physical properties are typical values for this product and are subject to change.

10.STABILITY AND REACTIVITY
STABILITY :
Stable under normal conditions.

HAZARDOUS POLYMERIZATION :
Hazardous polymerization will not occur.

CONDITIONS TO AVOID :
Freezing temperatures.

MATERIALS TO AVOID :
Addition of water results in gelling.

HAZARDOUS DECOMPOSITION PRODUCTS :
Under fire conditions: Oxides of carbon, Oxides of nitrogen

11.TOXICOLOGICAL INFORMATION
No toxicity studies have been conducted on this product.

CARCINOGENICITY :
None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

HUMAN HAZARD CHARACTERIZATION :
Based on our hazard characterization, the potential human hazard is: Low

12.ECOLOGICAL INFORMATION
ECOTOXICOLOGICAL EFFECTS :

No toxicity studies have been conducted on this product.

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION
Based on our hazard characterization, the potential environmental hazard is: Moderate

If released into the environment, see CERCLA/SUPERFUND in Section 15.

13.DISPOSAL CONSIDERATIONS
If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous waste, it is not subject to federal regulation. Consult state or local regulation for any

additional handling, treatment or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

14.TRANSPORT INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

LAND TRANSPORT :

Proper Shipping Name :PRODUCT IS NOT REGULATED DURING TRANSPORTATION
AIR TRANSPORT (ICAO/IATA) :

Proper Shipping Name :PRODUCT IS NOT REGULATED DURING TRANSPORTATION
MARINE TRANSPORT (IMDG/IMO) :

Proper Shipping Name :PRODUCT IS NOT REGULATED DURING TRANSPORTATION

15.REGULATORY INFORMATION

NATIONAL REGULATIONS, USA :

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200 :
Based on our hazard evaluation, none of the substances in this product are hazardous.

CERCLA/SUPERFUND, 40 CFR 117, 302 :
Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) – SECTIONS 302, 311, 312, AND 313 :

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355) :
This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370) :
Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372) :
This product does not contain substances on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA) :
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR 116.4 / formerly Sec. 311 :
None of the substances are specifically listed in the regulation.

CLEAN AIR ACT, Sec. 111 (40 CFR 60, Volatile Organic Compounds), Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :
None of the substances are specifically listed in the regulation.

CALIFORNIA PROPOSITION 65 :
This product does not contain substances which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS :
None of the substances are specifically listed in the regulation.

STATE RIGHT TO KNOW LAWS :
None of the substances are specifically listed in the regulation.

NATIONAL REGULATIONS, CANADA :

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) :
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION :
Not considered a WHMIS controlled product.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) :
The substances in this preparation are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

16.OTHER INFORMATION
This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

REFERENCES

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH., (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C.

(TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA), (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH, (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Ariel Insight# (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Prepared By : Product Safety Department
Date issued : 05/19/2003
Replaces : 08/27/2001

MINERAL MASTERS

130 W. GRAND LAKE BLVD. • WEST CHICAGO, IL. 60185
630-293-7727 Office • 630-293-7765 FAX

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : **MM-2307**

APPLICATION : FLOCCULANT

EMERGENCY TELEPHONE NUMBER(S) : (800) 424-9300 (24 Hours) CHEMTREC

NFPA 704M/HMIS RATING

HEALTH :	0 / 1	FLAMMABILITY :	1 / 1	INSTABILITY :	0 / 0	OTHER :

0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

2. COMPOSITION/INFORMATION ON INGREDIENTS

Based on our hazard evaluation, none of the substances in this product are hazardous.

3. HAZARDS IDENTIFICATION

****EMERGENCY OVERVIEW****

CAUTION

May cause irritation with prolonged contact.
Do not get in eyes, on skin, on clothing. Do not take internally. Wear suitable protective clothing. Keep container tightly closed. Water in contact with the product will cause slippery floor conditions. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water. Protect product from freezing.
May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.

PRIMARY ROUTES OF EXPOSURE :
Eye, Skin

HUMAN HEALTH HAZARDS - ACUTE :

EYE CONTACT :
May cause irritation with prolonged contact.

SKIN CONTACT :
May cause irritation with prolonged contact.

INGESTION :
Not a likely route of exposure. No adverse effects expected.

INHALATION :
Not a likely route of exposure. No adverse effects expected.

SYMPTOMS OF EXPOSURE :
Acute :
A review of available data does not identify any symptoms from exposure not previously mentioned.
Chronic :
A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS :
A review of available data does not identify any worsening of existing conditions.

4. FIRST AID MEASURES

EYE CONTACT :
Flush affected area with water. If symptoms develop, seek medical advice.

SKIN CONTACT :
Remove contaminated clothing. Wash off affected area immediately with soap and plenty of water. If symptoms develop, seek medical advice.

INGESTION :
Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. If symptoms develop, seek medical advice.

INHALATION :
Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

NOTE TO PHYSICIAN :
Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

5. FIRE FIGHTING MEASURES

FLASH POINT : > 200 °F / > 93 °C (PMCC)

LOWER EXPLOSION LIMIT : Not flammable

UPPER EXPLOSION LIMIT : Not flammable

EXTINGUISHING MEDIA :
Foam, Dry powder, Carbon dioxide, Other extinguishing agent suitable for Class B fires

UNSUITABLE EXTINGUISHING MEDIA :
Do not use water unless flooding amounts are available.

FIRE AND EXPLOSION HAZARD :
May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING :
In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :
Notify appropriate government, occupational health and safety and environmental authorities. Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection).

METHODS FOR CLEANING UP :
SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. LARGE SPILLS: Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS :
This product is toxic to fish. It should not be directly discharged into lakes, ponds, streams, waterways or public water supplies.

7. HANDLING AND STORAGE

HANDLING :
Do not take internally. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labelled. Avoid eye and skin contact.

STORAGE CONDITIONS :
Store separately from oxidizers. Store the containers tightly closed.

SUITABLE CONSTRUCTION MATERIAL :
PVC, Teflon, Mild steel, Stainless Steel 304, Stainless Steel 316L, Hastelloy C-276, Kalrez, Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

UNSUITABLE CONSTRUCTION MATERIAL :
Nylon, Ethylene propylene, Polypropylene, Polyethylene, Carbon Steel C1018, Plexiglass, EPDM, Alfax, Copper, Brass, Buna-N, HDPE (high density polyethylene), Natural rubber, Polyurethane, Hypalon, Viton, Neoprene, Aluminum, Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS :
This product does not contain any substance that has an established exposure limit.

ENGINEERING MEASURES :
General ventilation is recommended.

RESPIRATORY PROTECTION :
Where concentrations in air may exceed the limits given in this section, the use of a half face filter mask or air supplied breathing apparatus is recommended. A suitable filter material depends on the amount and type of chemicals being handled. Consider the use of filter type: Organic vapor cartridge (Black) with a Particulate pre-filter (Purple). If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

HAND PROTECTION :
Nitrile gloves, PVC gloves

SKIN PROTECTION :
Wear standard protective clothing.

EYE PROTECTION :
Wear chemical splash goggles.

HYGIENE RECOMMENDATIONS :
Keep an eye wash fountain available. Keep a safety shower available.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Liquid
APPEARANCE	Off-white
ODOR	Slight, Hydrocarbon

SPECIFIC GRAVITY	1.04 @ 77 °F / 25 °C
DENSITY	8.5 - 9.0 lb/gal
SOLUBILITY IN WATER	Emulsifiable
pH (1 %)	6.8
VISCOSITY	300 - 1,700 cps @ 77 °F / 25 °C
FREEZING POINT	26 °F / -3 °C
BOILING POINT	215 °F / 102 °C
VOC CONTENT	23.3 % EPA Method 24

Note: These physical properties are typical values for this product and are subject to change.

10. STABILITY AND REACTIVITY

STABILITY :
Stable under normal conditions.

HAZARDOUS POLYMERIZATION :
Hazardous polymerization will not occur.

CONDITIONS TO AVOID :
Freezing temperatures.

MATERIALS TO AVOID :
Addition of water results in gelling.. Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.

HAZARDOUS DECOMPOSITION PRODUCTS :
Under fire conditions: Oxides of carbon, Oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

No toxicity studies have been conducted on this product.

SENSITIZATION :
This product is not expected to be a sensitizer.

CARCINOGENICITY :
None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

HUMAN HAZARD CHARACTERIZATION :
Based on our hazard characterization, the potential human hazard is: Low

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL EFFECTS :

The following results are for the product and a 1% aqueous solution of the product.

ACUTE FISH RESULTS :

Species	Exposure	LC50	Test Descriptor
Fathead Minnow	96 hrs	240 mg/l	Similar Product
Rainbow Trout	96 hrs	8,500 mg/l	1% Aqueous Solution of Product
Sheepshead Minnow	96 hrs	> 1,000 mg/l	1% Aqueous Solution of a Similar Product

Inland Silverside	96.00 hrs	90.700 mg/l	Product

Rating : Slightly toxic

ACUTE INVERTEBRATE RESULTS :

Species	Exposure	LC50	EC50	Test Descriptor
Mysid Shrimp (Mysidopsis bahia)	96 hrs	188 mg/l		Similar Product
Daphnia magna	48 hrs	200 mg/l		1% Aqueous Solution of Product
Mysid Shrimp (Mysidopsis bahia)	96.00 hrs	67.400 mg/l		Product

Rating : Slightly toxic

AQUATIC PLANT RESULTS :

Species	Exposure	EC50/LC50	Test Descriptor
Marine Algae (Skeletonema costatum)	72 hrs	23 mg/l (EC50)	Product

Rating : Slightly toxic

PERSISTENCY AND DEGRADATION :

Chemical Oxygen Demand (COD) : 429,000 mg/l

Biological Oxygen Demand (BOD) :

Incubation Period	Value	Test Descriptor
5 d	200,000 mg/l	Product

The organic portion of this preparation is expected to be inherently biodegradable.

MOBILITY :
The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM , provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models. If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	Water	Soil/Sediment
<5%	10 - 30%	50 - 70%

The portion in water is expected to be soluble or dispersible.

BIOACCUMULATION POTENTIAL
Component substances have a potential to bioconcentrate.

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION
Based on our hazard characterization, the potential environmental hazard is: Low

If released into the environment, see CERCLA/SUPERFUND in Section 15.

13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous waste, it is not subject to federal regulation. Consult state or local regulation for any additional handling, treatment or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

14. TRANSPORT INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

LAND TRANSPORT :

Proper Shipping Name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

AIR TRANSPORT (ICAO/IATA) :

Proper Shipping Name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

MARINE TRANSPORT (IMDG/IMO) :

Proper Shipping Name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

15. REGULATORY INFORMATION

NATIONAL REGULATIONS, USA :

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200 :
Based on our hazard evaluation, none of the substances in this product are hazardous.

CERCLA/SUPERFUND, 40 CFR 117, 302 :
Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312, AND 313 :

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355) :
This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370) :
Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372) :
This product does not contain substances on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA) :
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

NSF INTERNATIONAL :
This product has received NSF/International certification under ANSI/NSF Standard 60 in the coagulation and flocculation category. The official name is "Polyacrylamide." Maximum product application dosage is : 1 mg/l.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR 116.4 / formerly Sec. 311 :
None of the substances are specifically listed in the regulation.

CLEAN AIR ACT, Sec. 111 (40 CFR 60, Volatile Organic Compounds), Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :
None of the substances are specifically listed in the regulation.

CALIFORNIA PROPOSITION 65 :
This product does not contain substances which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS :
None of the substances are specifically listed in the regulation.

STATE RIGHT TO KNOW LAWS :
None of the substances are specifically listed in the regulation.

NATIONAL REGULATIONS, CANADA :

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) :
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION :
Not considered a WHMIS controlled product.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) :
The substances in this preparation are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

INTERNATIONAL CHEMICAL CONTROL LAWS

AUSTRALIA
All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS) and are listed on the Australian Inventory of Chemical Substances (AICS).

EUROPE
The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

JAPAN
All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Ministry of International Trade & industry List (MITI).

KOREA
All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

THE PHILIPPINES
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippine Inventory of Chemicals & Chemical Substances (PICCS).

16. OTHER INFORMATION

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

REFERENCES

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH., (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA), (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH, (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Ariel Insight# (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Prepared By : Product Safety Department
Date issued : 12/11/2002
Replaces : 09/07/2001

7. Disposal
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MINERAL MASTERS

135 S. CHURCH ST., UNIT B, ADDISON, IL. 60101 630-628-1280 630-628-1290 FAX

FOR CHEMICAL EMERGENCY SPILL, LEAK, EXPOSURE, OR ACCIDENT CALL CHEMTREC, 1-800-423-9300

MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: MM-2917 SOLN. DATE ISSUED: 1/1/02

DESCRIPTION:CO POLYMER OF A QUATEMARY ACRYLATE SALT AND ACRYLAMIDE

SECTION 2. PRODUCT INGREDIENTS

		CASE NO#
CHEMICAL NAME:	CATIONIC COPOLYMER WITH ACRYLAMIDE	69418-26-4
	ADIPIC ACID	124-04-9

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: WHITE, FREE FLOWING DRY POWDER WITH LITTLE OR NO ODOR. SPILLS ARE VERY SLIPPER. AVOID CONTACT WITH SKIN AND EYES AND CLOTHING. CONTACT WITH EYES MAY PRODUCE IRRITATION AND OR REDNESS. INHALED DUST MAY CAUSE SOME RESPIRATORY IRRITATION.

POTENTIAL HEALTH EFFECTS
EFFECTS OF OVER EXPOSURE

EYE CONTACT: PROLONGED OR REPEATED EYE CONTACT MAY CAUSE IRRITATION.

SKIN CONTACT:PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE IRRITATION.

INHALATION: MAY CAUSE RESPIRATORY IRRITATION

INGESTION: NOT AVAILABLE

CHRONIC HAZARDS: NOT AVAILABLE

PRIMARY ROUTE OF ENTRY:EYES INHALATION

SECTION 4. FIRST AID MEASURES

INHALATION: REMOVE PATIENT TO FRESH AIR

SKIN: FLUSH IMMEDIATELY WITH SOAP AND WATER FOR AT LEAST 15 MINUTES.

EYE CONTACT: FLUSH WITH WATER FOR AT LEAST 15 MINUTES WITH EYE LIDS OPEN. CALL A PHYSICIAN.

INGESTION: IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE VICTOM A GLASS OF WATER. CONSUL;T A PHYSICIAN. NEVER GIVE ANYTHING MY MOUTH TO AN UNCONSCIOUS PERSON.

SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT: N/A
FLAMMABILITY: NONE
AUTO FLAMMABILITY: NONE
EXPLOSION HAZARDS: DUST IN SUFFICIENT CONCENTRATION CAN RESULT IN AN EXPLOSIVE MIXTURE OF AIR.
EXPLOSIVE LIMITS: LOWER: N/A
UPPER: N/A
EXTINGUISHING MEDIA CARBON DIOXIDE, DRY CHEMICAL OR FOAM TO EXTINGUISH.

EXTINGUISHING MEDIA WHICH MUST NOT BE USED: CARE MUST BE TAKEN WHEN USING WATER AS SPILLED PRODUCT IS EXTREMELY SLIPPERY WHEN WET.

SPECIAL EXPOSURE HAZARDS IN A FIRE: IN A FIRE SITUATION, MAY LIBERATE OXIDES OR NITROGEN OR CARBON AND HYDROGEN CHLORIDE. KEEP CONTAINERS COOL BY SPRAYING WITH WATER IF EXPOSED TO FIRE.

SPECIAL PROTECTIVE EQUIPMENT FOR A FIRE: SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN.

SECTION 6. ACCIDENTAL RELEASE MEASURES

ENVIRONMENTAL PRECAUTIONS:AVOID RUN OFF INTO STORM SEWERS AND DITCHES WHICH LEAD TO WATERWAYS.

METHOD FOR CLEAN UP: PRODUCT BECOMES SLIPPERY AND DIFFICULT TO HANDLE WHEN WET. SPILLS ARE BEST HANDLED WHILE DRY. SWEEP AND COLLECT DRY PRODUCT. ABSORB WET PRODUCT WHEN VERMICULITE OR OTHER INERT MATERIAL. THEN WATER WASH AREA TO WASTE TREATMENT.

OTHER INSTRUCTIONS: DISPOSE OF SOLIDIFIED MATERIAL IN ACCORDANCE WITH FEDERAL,STATE , LOCAL OR OTHER APPLICABLE LAWS AND REGULATIONS.

SECTION 7. HANDLING AND STORAGE

HANDLING: AVOID CONTACT WITH EYES SKIN AND CLOTHING.
STORAGE: AVOID TEMPERATURE EXTREMES, WET OR DAMP OR HUMID CONDITIONS.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: GENERAL VENTILATION IS RECOMMENDED. EYE WASH AND SAFETY SHOWER STATIONS ARE RECOMMENDED.

EXPOSURE GUIDELINES: NO MAC VALUES HAVE BEEN ESTABLISHED.

PERSONAL PROTECTIVE EQUIPMENT: SEE BELOW

RESPIRATORY PROTECTION: RESPIRATORY PROTECTION IS NOT NORMALLY NEEDED SINCE VOLATILITY AND TOXICITY ARE LOW. IF SIGNIFICANT VAPORS, MISTS OR AEROSOLS ARE PRESENT, USE NIOSH APPROVED RESPIRATOR (ANSI Z 882. 1980) OR EQUIVALENT.

HAND PROTECTION: WEAR IMPERVIOUS GLOVES.

EYE PROTECTION: WEAR CHEMICAL SPLASH GOGGLES OR FACE MASK.

SKIN PROTECTION: IF CLOTHING IS CONTAMINATED WASH SKIN AND LAUNDER CLOTHING.

NOTE: BEFORE EATING, DRINKING OR SMOKING, WASH FACE AND HANDS THOROUGHLY WITH SOAP AND WATER.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, COLOR AND ODOR: WHITE, FREE FLOWING DRY POWDER WITH LITTLE OR NO ODOR.

pH AS IS: N/A

MELTING POINT/RANGE: N/A

SPECIFIC GRAVITY: 0.8 - 1.0

WATER SOLUBILITY: COMPLEXLY SOLUBLE

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: STABLE

CONDITIONS TO AVOID: NONE

MATERIALS TO AVOID: STRONG OXIDANTS SUCH AS LIQUID CHLORINE, ENRICHED GASEOUS OR LIQUID OXYGEN AND SODIUM OR CALCIUM HYPOCHLORITE.

HAZARDOUS DECOMPOSITION PRODUCTS: OXIDES OF CARBON AND NITROGEN, AMMONIA AND OR HYDROGEN CHLORIDE. VAPOR MAY BE IRRITATING OR HARMFUL.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: NOT LISTED AS A CARCINOGEN BY IRAC, NTP, OSHA OR ACGIH. THE OSHA 8 HOUR TWA FOR TOTAL DUST IS 15 MG/CU METER (5 MG/CU-METER FOR THE RESPIRABLE FRACTION). THE ACGIH TLV-TWA IS 10 MG/CU-METER.

IRRITANCY AND CORROSIVENESS-MAY BE SLIGHTLY IRRITATING TO SKIN AND EYES ON PROLONGED EXPOSURE. NO EVIDENCE OF CORROSIVENESS.

SENSITIZATION: NONE KNOWN

SUBACUTE, SUB CHRONIC AND PROLONGED TOXICITY: NO INFORMATION AVAILABLE

EMPIRICAL DATA ON EFFECTS ON HUMANS: CONSIDERED NON TOXIC IN NORMAL USE.

SECTION 12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY: THIS PRODUCT OR A SIMILAR PRODUCT IS TOXIC TO FISH. LC50 (RAINBOW TROUT) IS BETWEEN 1 AND 10 PPM.

OTHER INFORMATION: DISCHARGE OF THIS PRODUCT MUST BE IN ACCORDANCE WITH ALL FEDERAL,S TATE OR LOCAL OR OTHER APPLICABLE LAWS AND REGULATIONS.

SECTION 13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: RECYCLE IF POSSIBLE. IF NOT, ABSORB SPILLED MATERIAL ON INERT ABSORBENT AND DISPOSE OF SOLIDIFIED MATERIAL IN ACCORDANCE WITH FEDERAL, STATE, LOCAL OR OTHER APPLICABLE LAWNS AND REGULATIONS.

SECTION 14. TRANSPORT INFORMATION

NON HAZARDOUS AND NON REGULATED BY D.O.T.

SECTION 15. REGULATORY INFORMATION

U.S.FEDERAL REGULATIONS

CERCLA-SARA HAZARD CATEGORY: NO SARA SECTION 313 COMPONENTS EXIST IN THIS PRODUCT.

INVENTORY INFORMATION:

EECFIEINECS: ALL COMPONENTS OF THIS PRODUCTS ARE INCLUDED ON THE EUROPEAN INVENTORY OF EXISTING CHEMICAL SUBSTANCES (EINECS) IN COMPLIANCE WITH COUNCIL DIRECTIVE 67/548/EEC AS AMENDED.

US TSCA: THIS PRODUCT IS MANUFACTURED IN COMPLIANCE WITH ALL PROVISIONS OF THE TOXIC SUBSTANCES CONTROL ACT, 15. US.C.

CANADA : COMPONENTS OF THIS PRODUCT HAVE BEEN REPORTED TO ENVIRONMENT CANADA IN ACCORDANCE WITH SUBSECTION 25 OF THE CANADIAN ENVIRONMENTAL PROTECTION ACT AND ARE INCLUDED ON THE DOMESTIC SUBSTANCES LIST.

SECTION 16. OTHER INFORMATION

HMIS RATINGS:

HEALTH:	1	FLAMMABILITY:	1
REACTIVITY:	0	PROTECTION:	F

THIS INFORMATION CONTAINED HEREIN IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF ACCURATE. HOWEVER, SINCE THE CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE MAKE NO GUARANTEE FOR RESULTS OBTAINED, AND ASSUME NO RESPONSIBILITY FOR DAMAGES INCURRED BY USED OF THIS PRODUCT. IT IS THE RESPONSIBILITY OF THE USER TO COMPLY WITH ALL FEDERAL,STATE AND LOCAL LAWS AND REGULATIONS.

16-120103

MINERAL MASTERS

130 W. GRAND LAKE BLVD. • WEST CHICAGO, IL. 60185
630-293-7727 Office • 630-293-7765 FAX

FOR CHEMICAL EMERGENCY, SPILL, LEAK, EXPOSURE, ACCIDENT, CALL CHEMTREC, 1-800-423-9300
Chemical Cleaner NOI
NON REGULATED BY D.O.T. NFMC#048580-03, Freight class 55

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION REVISED 12-14-05

PRODUCT NAME **MM-8225**

CHEMICAL NAME AND SYNONYMS
CLEANER CONCENTRATE

FORMULA
PROPRIETARY

2. COMPOSITION/INFORMATION ON INGREDIENTS

PRINCIPLE HAZARDOUS COMPONENT(S) CHEMICAL NAME	CAS#	% BY WEIGHT	ORAL LD50	DERMAL LD50	TLV (UNITS) ACGIH	OSHA	OTHER
ETHOXYLATED LINEAR ALCOHOL 8-10 MOLE	9016459		45		45PPM		

1 NOT AVAILABLE
*EXPOSURE LIMITS

3. PYSICAL DATA

BOILING POINT(0F)	N/D
VAPOR PRESSURE(mmHg)	.6mmHg
VAPOR DENSITY (AIR=1)	<1
SOLUBILITY IN WATER	>10%
SPECIFIC GRAVITY (H2O=1)	1.06
PERCENT VOLATILE BY VOLUME(%)	30
pH	7.0
APPEARANCE AND ODOR	WHITE OPAQUE,MILD

N/A = NOT APPLICABLE

WHILE THIS INFORMATION AND RECOMMENDATIONS SET FORTH HERIN ARE BELIEVED TO BE ACCURATE AS OF THE DATE HEREOF, MINERAL MASTERS CORPORATION MAKES NO WARRANTY WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

4. FIRE & EXPLOSION DATA

FLASH POINT	4700F CDC
EXTINGUISHING MEDIA	WATER ALCOHOL OR ALL PURPOSE FOAM

SPECIAL FIRE FIGHTING PROCEDURES	USE SELF CONTAINED BREATHING APPARATUS
UNUSUAL FIRE AND EXPLOSION HAZZARDS	NONE

5. HEALTH HAZARD DATA

EFFECT OF OVEREXPOSURE

A. ACUTE

1. INGESTION	MOD. TOXICITY. MAY CAUSE DIZZINESS OR NAUSIA. INGESTION OF SIGNIFICANT QUANTITIES MAY RESULT IN RED BLOOD CELL HEMOLYSIS.
2. INHALATION	HIGH CONCENTRATIONS OF VAPOR CAUSE IIRRITATION OF THE RESPISATORY TRACT, EXPERIANCED AS NASAL DISCOM FORT AND DISCHARGE, WITH CHEST PAIN AND COUGHING. HEADACHE, NAUSEA, VOM MITING, DIZZINESS AND DROWSINESS MAY OCCUR.
3. DERMAL EXPOSURE	BRIEF CONTACT MAY CAUSE SLIGHT IRRITATION WITH ITCHING AND LOCAL REDNESS\ PROLONGED CONTACT MAY CAUSE MORE SEVERE IRRITATION WITH DISCOM FORT OR PAIN,LOCAL REDNESS AND SWELLING, AND POSSIBLE TISSUE DESTRUCTION.
4. EYE IRRITATION	CAUSES SVERE IRRITATION EXPERIENCED AS DISCOMFORT OR PAIN, EXCESS TEAR PRODUCTION AND BLINKING, WITH MARKED EXCESS REDNESS AND SWELLING OF THE CONJUNCTIVA WITH INJURY TO THE CORNEA

B. SUBCHRONIC,CHRONIC,OTHER	NO ADVERSE EFFECTS ANTICIPATED FROM REPEATED EXPOSURE AS DETERMINED FROM AVAILABLE INFORMATION

FIRST AID

A. EYE	IMMEDIATELY FLUSH EYES WITH WATER AND CONTINUE WASHING FOR SEVERAL MINUTES. OBTAIN MEDICAL ATTENTION.
B. SKIN	REMOVE CONTAMINATED CLOTHING. WASH SKIN WITH SOAP AND WATER. IF IRRITATION PERSISTS OR IF CONTACT HAS BEEN PROLONGED, OBTAIN MEDICAL ATTENTION.
C. INGESTION	IF PATIENT IS FULLY CONSCIOUS GIVE TWO GLASSES OF WATER. INDUCE VOMITTING. OBTAIN MEDICAL ATTENTION.
D. INHALATION	REMOVE TO FRESH AIR

6. REACTIVITY DATA

STABILITY : _X_ STABLE____UNSTABLE

CONDITIONS TO AVOID: DO NOT DISTILL

INCOMPATABILITY
(MATERIALS TO BE AVOIDED):
AVOID STRONG ACIDS, BASES OR OXIDIZING AGENTS, STRONG EXOTHERMIC DECOMPOSITIONS MAY OCCUR UNDER SUCH CONDITIONS

HAZARDOUS DECOMPOSITION PRODUCTS: BURNING CAN CAUSE THE FOLLOWING COMBUSTIONS PRODUCTS; CARBON MONOXIDE AND CARBON DIOXIDE. CARBON MONOXIDE IS HIGHLY TOXIC AND CARBON DIOXIDE CAN ACT AS A ASPHYXIANT.

7. SPILL/LEAK PROCEDURES

REPORTABLE QUANTITIES (RQ)
IN LBS OF EPA HAZARDOUS
SUBSTANCES IN PRODUCT
1.SARA TITLE III NONE
2.CERCLA UPPER BOUNDRY CONC.% 100%

3. NOTIFY EPA OF PRODUCT SPILLS EQUAL TO OR EXCEEDING:
400 LBS

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
SMALL SPILLS CAN BE FLUSHED WITH LARGE AMOUNTS OF WATER, LOW LEVELS ARE BIODEGRADABLE AND MAY BE SENT TO A BIOLOGICAL WASTE WATER FACILITY. WEAR SUITABLE PROTECTIVE EQUIPMENT. DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. DIKE AREA TO CONTAIN AS MUCH SPILLED MATERIAL AS POSSIBLE. REMOVE ANY REMAINING MATERIAL BY ABSORBING ON VERMICULITE OR OTHER SUITABLE ABSORBING MATERIAL AND PLACE IN A SEALED CONTAINER FOR DISPOSAL.

WASTE DISPOSAL METHOD: LARGE AMOUNTS, INCINERATE

8. HANDLING/STORAGE

PROTECTIVE GLOVES
BUTYL

EYE PROTECTION
CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE CLOTHING
CHEMICAL APRON,EYE BATH AND SAFETY SHOWER

RESPIRATORY PROTECTION
USE SELF CONTAINED BREATING APPARATUS IN HIGH VAPOR CONC.

VENTALATION
LOCAL EXHAUST
MECHANICAL(GENERAL)
OTHER

AT CONCENTRATION POINTS
RECOMMENDED
USE ONLY IN WELLVENTILATED AREAS THAT WILL MAINTAIN AIR LEVELS BELOW LIMITS ESTABLISHED BY LOCAL,STATE, AND FEDERAL REGULATIONS.

9. STORAGE & HANDLING

WARNING!!

- HARMFULL IF ABSORBED THROUGH SKIN
- CAUSES EYE AND SKIN IRRITATION
- AVOID CONTACT WITH EYES SKIN AND CLOTHING
- WEAR CHEMICAL SPLASH GOGGLES AND RUBBER GLOVES WHEN HANDLING
- WASH THOROUGHLY AFTER HANDLING
- KEEP CONTAINER CLOSED WHEN NOT IN USE
- USE WITH ADEQUATE VENTILLATION

•SWALLOWING LARGE QUANTITIES MAY CAUSE RED BLOOD CELL DAMAGE

OTHER PRECAUTIONS NONE

FOR INDUSTRIAL USE ONLY

N/A = NOT APPLICABLE

10 TRANSPORT INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

NON REGULATED BY DOT

11. OTHER INFORMATION

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

Imperial Oil & Grease Company

MATERIAL SAFETY DATA SHEET

PART ONE

SECTION I

PRODUCT NAME OR NUMBER (as it appears on label) MOLUB-ALLOY CHAIN OIL 22	EMERGENCY TELEPHONE NO. 213-679-0271
ADDRESS (Number, Street, City, State and Zip Code) 4801 West 147th St., Hawthorne, California, 90250	MANUFACTURER'S D.U.N.S. N 07-954-5248
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) None- Does not apply	
ADDITIONAL HAZARD CLASSES (as applicable)	
CHEMICAL FAMILY None-(mixture)	FORMULA None-(mixture)

SECTION II — HAZARDOUS INGREDIENTS
(Additional information in MSDS Part 2)

CAS REGISTRY NO.	%W	%V	CHEMICAL NAME(S)	Listed as a Carci in NTP, IARC or 1910(z) (spec
			(REFER TO SECTION V ON REVERSE SIDE)	

TO THE BEST OF OUR KNOWLEDGE, THIS PRODUCT CONTAINS NO HAZARDOUS INGREDIENTS, AS DEFINED BY 29 CFR 1910.1200.

SECTION III — PHYSICAL DATA

BOILING POINT >500 °F ___ °C	SPECIFIC GRAVITY (H2O = 1) @ 60 °F	0.901	
APPEARANCE AND ODOR Dark opaque liquid, petroleum odor.		IS MATERIAL: GAS VAPOR LIQUID SOLID	

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT 275 °F ___ °C method used ASTM D92	FLAMMABLE LIMITS LEL N/A
EXTINGUISHING MEDIA Foam, CO_2, dry chemical.	
SPECIAL FIRE FIGHTING PROCEDURES None, fight as petroleum fire.	
UNUSUAL FIRE AND EXPLOSION HAZARDS None	

SECTION V-HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE — Conditions to Avoid	THRESHOLD LIMIT VALUE
Mild skin irritation.	OTHER LIMIT [XX] It is recommended that the generalized ACGIH limit be followed; TWA 5 mg/m³ if sprayed in air.

PRIMARY ROUTES OF ENTRY Inhalation [X] Skin Contact [ ] Other (specify)

EMERGENCY AND FIRST AID PROCEDURES Rinse material from eyes with warm water; if ingested, do not induce vomiting, call a physician.

SECTION VI-REACTIVITY DATA

			CONDITIONS TO AVOID
STABILITY	UNSTABLE		
	STABLE	X	Sources of ignition.

INCOMPATIBILITY (materials to avoid) Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: None in normal use.

			CONDITIONS TO AVOID
HAZARDOUS POLYMERIZATION	MAY OCCUR		
	WILL NOT OCCUR	X	None

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Dike spill - clean up promptly with oil absorbent - place in impervious container.

WASTE DISPOSAL METHOD Reclaim, incinerate or transport to licensed disposal facility per applicable regulations.

SECTION VIII-SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type) None required in normal use.

VENTILATION	LOCAL EXHAUST (Specify Rate) None required in normal use.	SPECIAL	
	MECHANICAL (General) (Specify Rate)	OTHER	

PROTECTIVE GLOVES (specify type) None required. EYE PROTECTION (specify type) Protective eyeware always recommended.

OTHER PROTECTIVE EQUIPMENT

SECTION IX-SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Store neatly to detect leaks.

OTHER PRECAUTIONS Maintain cleanliness.

"THE INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE AND IS ACCURATE TO THE BEST OF SELLER'S KNOWLEDGE, HOWEVER, SELLER MAKES NO WARRANTY WHATSOEVER, EXPRESSED, IMPLIED OR OF MERCHANTABILITY REGARDING THE ACCURACY OF SUCH DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SELLER ASSUMES NO RESPONSIBILITY FOR INJURY TO BUYER OR TO THIRD PERSONS OR FOR ANY DAMAGE TO ANY PROPERTY AND BUYER ASSUMES ALL SUCH RISKS."

Name (print)	Michael Romanov, Ph.D.
Signature	Michael Romanov
Title	Environmental Chemist
Date	November 25, 1985

OF 2545 11/85

MINERAL MASTERS

130 W. GRAND LAKE BLVD. • WEST CHICAGO, IL. 60185
630-293-7727 Office • 630-293-7765 FAX

REVISION DATE JAN, 2004

FOR CHEMICAL EMERGENCY, SPILL, LEAK, EXPOSURE, OR ACCIDENT, CALL CHEMTREC, 1-800-423-9300

MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: MM-P80

ALUMINUM CHLOROHYDRATE, SOLUTION FILTER AID
CASE: 712042-91-0 (ANHYDROUS FORM)
CHEMICAL NAME: INORGANIC BASIC SALT, SOLUTION

SECTION 2. PRODUCT INGREDIENTS

INGREDIENT NAME	CASE#	%	PERCENTAGE
NONE			

SECTION 3. PHYSICAL DATA

BOILING POINT :	1100C	pH(15% W/W)	4.0 - 4.4
MELTING POINT:	70C	SOLUBILITY IN WATER:	COMPLETE
SPECIFIC GRAVITY:	1.34	VAPOR PRESSURE:	N/F1
% VOLATILE:	50 (WATER)	EVAPORATION RATE:	N/F
FORM:	LIQUID		
COLOR:	COLORLESS		
ODOR:	NONE		

SECTION 4. FIRE AND EXPLOSION DATA

FLASH POINT: N/A2
FLAMMABLE LIMITS IN AIR: UFL: N.A LFL: N.A (% BY VOLUME)
EXTINGUISHING MEDIA: WILL NOT BURN =, USE MATERIALS APPROPRIATE FOR SURROUNDING FIRE

SPECIAL FIRE FIGHTING INSTRUCTIONS: COOL EXPOSED TANKS WITH WATER

SPECIAL FIRE AND EXPLOSION HAZARDS: POSSIBLE FORMATION OF HAZARDOUS CHLORINE COMPOUNDS

SECTION 5. REACTIVITY

STABILITY: STABLE
POLYMERIZATION: WILL NOT OCCUR
DECOMPOSITION: WILL NOT OCCUR
INCOMPATIBILITY: N/F

SECTION 6. HEALTH HAZARDS

EXPOSURE LIMITS: NOT SPECIFICALLY REGULATED AS TOXIC AS HAZARDOUS BY OSHA. THE ACGIH TLV FOR MISTS OR DUSTS OF SOLUBLE ALUMINUM SALTS IS 2 MG/M3 AS AL (8 HOUR TIME WEIGHTED AVERAGE)

CARCINOGENCITY: NONE OF THE COMPONENTS OF THIS MATERIAL ARE LISTED AS A CARCINOGEN BY IARC, NTP, OSHA OR ACGIH.

TOXICOLOGY

INGESTION: EFFECTS OF SMALL AMOUNTS ARE NEGLIGIBLE; LARGE AMOUNTS MAY INJURE SLIGHTLY.

EYE CONTACT: EYE CONTACT RESULTS IN MILD IRRITATION AND REDNESS.

SKIN CONTACT: SKIN CONTACT MAY CAUSE IRRITATION OR MILD CHEMICAL BURNS. SKIN MAY DRY OR CRACK TO ASTRINGENT NATURE OF MATERIAL.

INHALATION: ALTHOUGH UNLIKELY TO OCCUR, INHALATION MAY RESULT IN AN ADVERSE REACTION TO PERSONS PREVIOUSLY SENSITIZED TO THE MATERIAL.

FIRST AID

EYE: IMMEDIATELY FLUSH EYES FOR 15 MINUTES WITH PLENTY OF WATER. CALL A PHYSICIAN

SKIN: FLUSH SKIN WITH WATER. REMOVE CONTAMINATED CLOTHING, WASH BEFORE REUSE

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CALL A PHYSICIAN

INGESTION: NONE NEEDED

SECTION 7. PERSONAL PROTECTION

ADEQUATE GENERAL VENTILATION SHOULD BE PROVIDED TO KEEP VAPOR AND MISTS BELOW EXPOSURE LIMITS.

WEAR SAFETY GLASSES WITH SIDE SHIELDS. WEAR A FACE SHIELD IF POSSIBILITY OF MATERIAL SPLASHING OR SPRAYING EXISTS. WHERE THERE IS POSSIBILITY OF SKIN CONTACT, USE THE FOLLOWING AS APPROPRIATE: GLOVES IMPERVIOUS TO MATERIAL, APRON, BOOTS, HOOD, PANTS AND JACKET. WEAR A NIOSH/OSHA APPROVED RESPIRATOR WITH A DUST/MIST CARTRIDGE IF THERE IS POTENTIAL OF EXPOSURE TO MISTS IN EXCESS OF APPLICABLE LIMITS.

SECTION 8. SPILL/LEAK PROCEDURE

REVIEW SAFETY PRECAUTIONS BEFORE PROCEEDING WITH CLEAN UP. USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT.

NEUTRALIZE SILL WITH LIME (CALCIUM HYDROXIDE), LIMESTONE (CALCIUM CARBONATE), OR SODA ASH (SODIUM CARBONATE. CAUTION: LIMESTONE AND SODA ASH WILL EVOLVE CO2; VENTILATION SHOULD BE PROVIDED IN ENCLOSED AREAS. DIKE AREA AROUND SPILL TO PREVENT SPREADING, AND USE ABSORBENT MATERIAL TO PICK UP SPILL.

DISPOSAL:
UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE WHETHER A SUBSTANCE SHOULD BE CLASSIFIED AS A HAZARDOUS WASTE AT THE TIME OF DISPOSAL. THIS IS DUE TO THE FACT THAT PRODUCT USE, TRANSFORMATION, SYNTHESIS, MIXTURES, ETC., MAY CHANGE THE NATURE OF THE PRODUCT. DISPOSE OF WASTE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS.

SECTION 9. SHIPPING INFORMATION

D.O.T.

PROPER SHIPPING NAME:	N/A
HAZARD CLASS:	N/A
UN/NA #:	N/A
D.O.T. LABELS:	N/A
D.O.T. PLACARDS:	N/A
STORAGE CONDITIONS:	KEEP CONTAINERS CLOSED

SECTION 10. TITLE III, HAZARD CLASSIFICATIONS

ACUTE:	NO	CHRONIC:	NO
FIRE:	NO	REACTIVITY:	NO
PRESSURE:	NO		

EXTREMELY HAZARDOUS SUBSTANCE:	NO
TOXIC CHEMICAL:	NO
CERCLA HAZARDOUS SUBSTANCE:	NO

NFPA/HMIS RATINGS: HEALTH=1
FLAMMABILITY=0
REACTIVITY=0
PERSONAL PROTECTION RATING TO BE SUPPLIED BY USER DEPENDING ON USE CONDITIONS.

THIS MSDS SHEET REFERS ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN, AND DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS.

MINERAL MASTERS

130 W. GRAND LAKE BLVD. • WEST CHICAGO, IL. 60185
630-293-7727 Office • 630-293-7765 FAX

FOR CHEMICAL EMERGENCY, SPILL, LEAK, EXPOSURE, OR ACCIDENT, CALL CHEMTREC, 1-800-423-9300

MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: MM-PAL 400 REVISED 8/18/03

PROPER SHIPPING NAME: NONE
D.O.T. HAZARD NAME: NON
D.O.T. ID#: NONE
D.O.T. HAZARD CLASS: NONE
RCRA HAZARD CLASS: NONE
E.P.A. PRIORITY CLASS: NONE
NFPA = NATIONAL FIRE PROTECTION ASSN.-704
HEALTH (NFPA)=1 FLAMMABILITY (NFPA)=1 REACTIVITY (NFPA) = 0
CAS NO: PROPRIETARY BLEND
GENERIC DESCRIPTION ; DEFOAMER

SECTION 2. HAZARD INGREDIENTS AS DEFINED IN 29 CFR 1910-1200

NON HAZARDOUS MATERIAL: CFR21,S SECTION 173.340

NOT LISTED AS A CARCINOGENIC

ADDITIONAL SARA REGULATORY COMPLIANCE INFORMATION
SECTION 312 HAZARD LASS: NONE
SECTION 313 NOTIFICATION: NOT APPLICABLE -EITHER NONE PRESENT OR NONE IN REGULATED QUANTITIES

SECTION 3. PHYSICAL DATA

BOILING POINT :	100 C (212F)
SPECIFIC GRAVITY (AT 25C) ;	0.98
MELTING POINT: 85F	
VAPOR PRESSURE: (mmHg.):	N/A
VAPOR DENSITY (AIR=1 @ 25C)	N/A
% VOLATILE BY WEIGHT (%):	<0.1
EVAPORATION RATE (BUTYL ACETATE =1): 1.0	
SOLUBILITY IN WATER (%):	EMULSIFIES
COLOR, APPEARANCE & ODOR:	WHITE LIQUID

SECTION 4. FIRE AND EXPLOSION DATA

FLASH POINT:	N/A	
AUTO IGNITION:	NOT DETERMINED	
FLAMMABILITY LIMITS IN AIR:	LOWER: N/A	UPPER: N/A
EXTINGUISHING MEDIA:	NOT FLAMMABLE	
UNUSUAL FIRE & EXPLOSION H HAZARDS: NONE		
COMMENTS:	NONE	

SECTION 5. REACTIVITY

STABILITY: STABLE
POLYMERIZATION: WILL NOT OCCUR

DECOMPOSITION: WILL NOT OCCUR
INCOMPATIBILITY: N/A

CONDITIONS TO AVOID: NONE

SECTION 6. EFFECTS OF OVEREXPOSURE

EYES: DIRECT CONTACT MAY CAUSE TEMPORARY DISCOMFORT WITH REDNESS AND DRYNESS

SKIN: A SINGLE PROLONGED EXPOSURE (24-48 HRS) CAUSES NO ADVERSE EFFECTS.

ORAL: SMALL AMOUNTS TRANSFERRED TO THE MOUTH DURING USE SHOULD NOT CAUSE INJURY: LARGE AMOUNTS MAY
CAUSE DIGESTIVE DISCOMFORT.

COMMENTS: NO KNOWN ADVERSE CHRONIC HEALTH EFFECTS HOWEVER, UNNECESSARY EXPOSURE TO ANY CHEMICAL SHOULD BE AVOIDED. HIS PRODUCT AS WITH ANY CHEMICAL, MAY ENHANCE ALLERGIC CONDITIONS ON CERTAIN PEOPLE. WE DO NOT KNOW OF ANY MEDICAL CONDITIONS THAT MIGHT BE CAUSED BY EXPOSURE TO THIS PRODUCT.

SECTION 7. EMERGENCY FIRST AID

EYES: FLUSH IMMEDIATELY WITH WARM WATER

SKIN: WIPE OFF, THEN WASH SOAP AND WATER

INHALATION: REMOVE TO FRESH AIR

ORAL: I INGESTED, DRINK TWO GLASSES OF WATER, DO NOT INDUCE VOMITING

COMMENTS: CONTACT PHYSICIAN IS SYMPTOMS PERSIST

SECTION 8. ROUTINE HANDLING PRECAUTIONS

PROTECTIVE EQUIPMENT

EYES: USE PROPER PROTECTION (SAFETY GLASSES AS MINIMUM)

SKIN: WASH WITH SOAP AND WATER BEFORE MEAL TIMES AND THE END OF EACH WORK SHIFT. GOOD MANUFACTURING
PRACTICES REQUIRE THAT ROSS AMOUNTS OF ANY CHEMICAL BE REMOVED FROM SKIN AS SOON AS POSSIBLE, ESPECIALLY BEFORE EATING OR SMOKING.

INHALATION: NO RESPIRATORY PROTECTIONS SHOULD BE REQUIRED

MECHANICAL (GENERAL) RECOMMENDED

VENTILATION - LOCAL EXHAUST: NONE SHOULD BE REQUIRED.

SUITABLE RESPIRATORY: NONE SHOULD BE NEEDED

THE ABOVE PRECAUTIONS ARE FOR ROOM TEMPERATURE HANDLING, USE AT ELEVATED TEMPERATURES OR AEROSOL/SPRAY APPLICATIONS, MAY REQUIRE ADDED PRECAUTIONS

SECTION 9. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
KEEP FROM FREEZING. USE REASONABLE CARE AND CAUTION. KEEP CONTAINERS CLOSED WHEN NOT IN USE. AVOID SPILL DURING TRANSFER OR STIRRING AS ANY QUANTITY OF SPILLED MATERIAL IS SLIPPERY. CONTAIN SPILL IMMEDIATELY AND APPLY DRY ABSORBENT. THEN SWEEP UP, SCRUB AND CLEAN AREA WITH HIGH PRESSURE WATER.

SECTION 10. SPILL, LEAK, & WASTE PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED.

CONTAIN SPILL AND ABSORB ON INERT MATERIAL.

PROTECTIVE EQUIPMENT:
EYES: USE PROPER EQUIPMENT (SAFETY GLASSES AS MINIMUM)

SKIN: WASH WITH SOAP AND WATER AFTER SPILL IS CONTAINED

INHALATION: NO RESPIRATORY PROTECTION SHOULD BE NEEDED

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH LOCAL STATE AND FEDERAL REGULATIONS
D.O.T. (49 CFR 171.8) /E.P.A. (40 CFR 117)...SPILL REPORTING INFORMATION
HAZARDOUS SUBSTANCE NOT A RCRA HAZARD WASTE IF UNCONTAMINATED
REPORTING QTY.: N/A
CONCENTRATION OF HAZARDOUS SUBSTANCE: NOT APPLICABLE

COMMENTS: PRODUCT CONTAINS NO INGREDIANTS SUBJECT TO D.O.T. OR E.P.A. CERCLA/SARA ENVIRONMENTAL RELEASE REPORTING REGULATIONS. SEE SECTION XI FOR ADDITION SARA COMPLIANCE INFORMATION. PRODUCT IS CONSIDERED AN OIL IN THE CONTEXT OF THE USA CLEAN WATER ACT.

SPILLS TO US SURFACE WATERS, OR TO WATER COURSE OR SEWER LEADING TO US SURFACE WATERS, THAT COURSE A VISIBLE SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER #800-424-8802

SECTION 11. COMMENTS

THIS DATA IS OFFERED IN GOOD FAITH AS TYPICAL AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EITHER EXPRESSED OR IMPLIED IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.

MATERIAL SAFETY DATA SHEET

MANUFACTURER: TAYLOR TECHNOLOGIES, INC
31 LOVETON CIRCLE
SPARKS, MD 21152
TELEPHONE: 410-472-4340

1. PRODUCT IDENTIFICATION

CATALOG NO.: R-0601
PRODUCT NAME: Molybdate Reagent
CHEMICAL FAMILY: Inorganic acid and salt solution

2. INGREDIENTS

INGREDIENT	CAS NO.	%	NATURE OF HAZARD
Sodium molybdate	7631-95-0	<5	Irritant
*Sulfuric acid	7664-93-9	<10	Corrosive acid
Deionized water	7732-18-5	to 100	None

*This chemical is subject to the reporting requirements of SARA Title III Section 313 and 40 CFR 372.

3. PHYSICAL/CHEMICAL CHARACTERISTICS

STATE: Liquid APPEARANCE: Clear, colorless ODOR: None
BOILING PT (F): 215 pH: 0.8 SPECIFIC GRAVITY: 1.05
VAPOR PRESSURE (mm Hg): 17 VAPOR DENSITY (AIR=1): .6
PERCENT VOLATILE BY VOLUME: 99 SOLUBILITY IN WATER: Soluble

4. FIRE/ EXPLOSION HAZARD AND REACTIVITY DATA

FLASH PT: NA METHOD: NA
FLAMMABLE LIMITS: LEL: NA UEL: NA
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide
SPECIAL PROCEDURES: Wear self-contained (positive pressure if available) breathing apparatus and special protective clothing
FIRE/EXPLOSION HAZARDS AND HAZARDOUS DECOMPOSITION PRODUCTS: May react violently with water. May react with metals to produce hydrogen gas. May ignite combustible materials. May emit toxic fumes of sulfur oxides.
NFPA CODE: Health: 1 Flammability: 0 Reactivity: 1 Specific: CORR
CONDITIONS TO AVOID: Extreme heat, temperatures. Contact with strong alkali, metals.

5. HEALTH HAZARD DATA

INGREDIENT: Sulfuric acid
TOXICITY: LD50(orl-rat): 2140 mg/kg
PEL: 1 mg/m3 TLV: 1 mg/m3
STEL: 3 mg/m3

5.HEALTH HAZARD DATA - continued
ROUTE(S) OF ENTRY: Inhalation Ingestion X Skin X
TARGET ORGAN(S): Eyes, skin
CARCINOGENICITY: NTP No IARC No OSHA No
HEALTH HAZARDS AND SYMPTOMS OF EXPOSURE:
EYES: Corrosive. Contact may cause severe burns.
SKIN: Corrosive. Contact may cause severe burns.
INGESTION: Corrosive. May cause severe gastrointestinal irritation, burns of mouth, esophagus, and stomach.
INHALATION: NA
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye and skin conditions

6.PRECAUTIONARY MEASURES
PROTECTIVE EQUIPMENT: Rubber gloves, safety glasses, lab coat, rubber apron, face shield
HANDLING: Avoid contact with eyes, skin, and clothing. Avoid breathing chemical. Wash thoroughly after handling.
STORAGE: Cool, dry area. Avoid direct sunlight.

7.EMERGENCY AND FIRST AID PROCEDURES
EYE AND SKIN CONTACT: Immediately flush eyes with water for 15 minutes. Call physician. Wash skin thoroughly with baking soda, soap and water.
INGESTION: Give large amounts of water or large amounts of water with milk of magnesia. Call physician. DO NOT INDUCE VOMITING.
INHALATION: NA

8.SPILL AND DISPOSAL PROCEDURES
SPILL OR RELEASE: Neutralize with soda ash. Absorb with vermiculite or other inert material. Containerize for later disposal.
DISPOSAL: Incineration or other method to comply with all local, state, and federal regulations.

NA = Not applicable
ND = Not determined
NE = Not established

This Material Safety Data Sheet has been prepared in accordance with 29 CFR Part 1910.1200 and contains information believed to be accurate and complete at the date of preparation. However, no warranty is expressed or implied. Advice given under "Spill and Disposal Procedures" assumes compliance with federal, state, and local regulations regarding the disposal of hazardous waste.

DATE PREPARED: May 1996

Material Safety Data Sheet

19-120618

PROUCT NAME: MORCAT NO. 331

MSDS NUMBER: 51A

PRODUCT CODE: FINISHED

MSDS DATE: 06/01/98

KEY NUMBER:

EMERGENCY PHONE #'s: 617-242-1180

HEALTH	Slightly Hazardous
FIRE	Flash Point: Above 200°F, 93°C
REACTIVITY	Stable
SPECIFIC	-

1. IDENTIFICATION

☐ See Addendum: Ref. PAGE:

Chemical Name: MORCAT NO. 331

Chemical Family: FATTY OIL

CAS #: N/A - MIXTURE

Chemical Formula: ND

CAS Name: ND

Molecular Weight: ND

Synonyms / Common Name: TRIGLYCERIDES

DOT Information: NON HAZARDOUS

2. PHYSICAL DATA

☐ See Addendum: Ref. PAGE:

Appearance: THIN PASTE

Color: WHITE

State: LIQUID

Odor Characteristics: ACETIC ACID SMELL

pH: 3.0-4.0

Viscosity: ND

Specific Gravity (Water = 1): ND

Vapor Density (Air = 1): ND

Vapor Pressure: ND

Melting Point: ND

Boiling Point: ND

Flash Point: ND

Freezing Point: ND

Percent Volatility: ND

Evaporation Rate (BAc = 1): ND

Solubility in Water: YES

Solubility in Oil: ND

Solubility in Acetone: ND

3. INGREDIENTS

☐ See Addendum: Ref. PAGE:

Material / Components	CAS #:	CAS Name	TLV Units	Approx. %
ACETIC ACID	64-19-7	ACETIC ACID	10 PPM	7.0%

4. FIRE AND EXPLOSION HAZARD DATA

☐ See Addendum: Ref. PAGE:

Flash Point: ND

Flammable Limits in Air % by volume: Lower ND, Upper

Extinguishing Media: DRY CHEMICAL, CO2 OR FOAM

Special Fire Fighting Procedures: DO NOT ENTER ENCLOSED SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT. THIS MAY INCLUDE SELF CONTAINED BREATHING APPARATUS TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF COMBUSTION PRODUCTS AND OXYGEN DEFICIENCIES.

Unusual Fire & Explosion Hazards: WHEN HEATED TO EXTREME THIS PRODUCT MAY RELEASE FLAMMABLE VAPORS, WHICH MAY BURN OR BE EXPLOSIVE IN CONFINED SPACES IF EXPOSED TO A SOURCE OF IGNITION. MIST MAY BE FLAMMABLE AT NORMAL TEMPERATURES. KEEP AWAY FROM EXTREME HEAT AND OPEN FLAME.

PRODUCT NAME: MORCAT NO. 331
MSDS NUMBER: 51A
MSDS DATE: 06/01/98
PRODUCT CODE: FINISHED
KEY NUMBER:

5. HEALTH HAZARD DATA

☐ *See Addendum:* PAGE #:

Threshold Limit Value: ND

Effects of Overexposure:

Inhalation: ND

Skin Contact: ND

Eye Contact: ND

Ingestion: ND

Delayed Effects: ND

Medical Conditions Aggravated by Exposure ND

6. FIRST AID MEASURES

☐ *See Addendum:* PAGE #:

Inhalation: PROVIDE FRESH AIR. IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION.

Skin Contact: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION.

Eye Contact: IMMEDIATELY FLUSH WITH PLENTY OF WATER. REMOVE CONTAMINATED CLOTHING. CALL A PHYSICIAN IF IRRITATION PERSISTS. WASH CLOTHING BEFORE REUSE.

Ingestion: IF SWALLOWED CALL A PHYSICIAN IMMEDIATELY. ONLY INDUCE VOMITING AT THE INSTRUCTIONS OF A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCOUS PERSON.

NOTES TO PHYSICIAN:

7. REACTIVITY DATA

☐ *See Addendum:* PAGE #:

Stability: STABLE UNDER NORMAL CONDITIONS, SLIGHTLY CORROSIVE

Incompatibility: (materials to avoid) VERY STRONG OXIDIZERS

Hazardous Combustion or Decomposition Products NO

Hazardous Polymerization: NO

Conditions to Avoid: NONE KNOWN

8. SPILL OR LEAK PROCEDURES

☐ *See Addendum:* PAGE #:

Actions to take for Leaks & Spills STOP LEAKS. CLEAN UP LARGE SPILLS WITH VACUUM TRUCK. SOAK UP SMALL SPILLS WITH ABSORBENT MATERIAL AND PLACE IN LABELED WASTE CONTAINER FOR DISPOSAL. WEAR ADEQUATE PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT.

Waste Disposal Method: DISPOSE OF IN AN APPROVED CHEMICAL WASTE LANDFILL OR INCINERATE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

PRODUCT NAME: MORCAT NO. 331
MSDS NUMBER: 51A
MSDS DATE: 06/01/98
PRODUCT CODE: FINISHED
KEY NUMBER:

9. SPECIAL PROTECTION INFORMATION

☐ *See Addendum:* Ref. PAGE:

Resporatory Protection: RECOMMENDED UNDER ADVERSE CONDITIONS.

Eye Protection: CHEMICAL SPLASH GOGGLES RECOMMENDED.

Skin Protection: NEOPRENE GLOVES RECOMMENDED

Other Clothing: WEAR FULL PROTECTIVE CLOTHING UNDER ADVERSE CONDITIONS

Other Equipmet: FOLLOW GOOD INDUSTRIAL PRACTICES.

Engineering Controls:

10. HANDLING AND STORAGE

☐ *See Addendum:* Ref. PAGE:

Special Precautions: FOLLOW GOOD INDUSTRIAL PRACTICES

Other Precautions: WASH FASE AND HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET.

11. REGULATORY INFORMATION

☐ *See Addendum:* Ref. PAGE:

Workplace Classification: NON HAZARDOUS

12. TOXICOLOGICAL INFORMATION

☐ *See Addendum:* Ref. PAGE:

Acute Data: ND

Reproductive / Teratology Data ND

13. ECOLOGICAL INFORMATION

☐ *See Addendum:* Ref. PAGE:

Fate in the Environment: ND

14. DISPOSAL CONDITIONS

☐ *See Addendum:* Ref. PAGE:

Procedures: DISPOSE OF IN AN APPROVED CHEMICAL WASTE LANDFILL OR INCINERATE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

15. TRANSPORTATION INFORMATION

☐ *See Addendum:* Ref. PAGE:

DOT Classification: LIQUID SOAP CLASS 55

Warning Labels: NONE

Material Safety Data Sheet

PRODUCT NAME: MORITE AAOK

MSDS NUMBER: 24C

MSDS DATE: 01/01/01

EMERGENCY PHONE #'s: 617-242-1180

PRODUCT CODE: FINISHED

KEY NUMBER:

WHITTEMORE-WRIGHT CO.
62 AFFORD STREET
CHARLESTOWN, MA 02129

HEALTH	Slightly Hazardous
FIRE	Flash Point: Above 260°F 93°C
REACTIVITY	Stable
SPECIFIC	

See Addendum: Ref. PAGE:

1. IDENTIFICATION

Chemical Name: MORITE AAOK
Chemical Family: FATTY OIL
CAS #: N/A - MIXTURE
CAS Name: ND
Synonyms / Common Name: TRIGLYCERIDES
DOT Information: NON HAZARDOUS

Chemical Formula: ND
Molecular Weight: ND

See Addendum: Ref. PAGE:

2. PHYSICAL DATA

Appearance: LIGHT OIL, MILD ODOR
Color: BROWN
State: LIQUID
Odor Characteristics: MILD SOAPY
pH: 5.0 - 10.0
Viscosity: ND
Specific Gravity (Water = 1): ND
Vapor Density (Air = 1): ND
Vapor Pressure: ND

Melting Point: ND
Boiling Point: ND
Flash Point: ND
Freezing Point: ND
Percent Volatility: ND
Evaporation Rate (BAc = 1): ND
Solubility in Water: YES
Solubility in Oil: ND
Solubility in Acetone: ND

See Addendum: Ref. PAGE:

3. INGREDIENTS

Material / Components	CAS #:	CAS Name	TLV Units	Approx. %
ETHYOXLATE	9016-45-9			5.0%
LUBRICATING OIL	64742-58-1		5.0MG/M3	13.0%
ETHANOL	64-17-5			<1.0%
PHENOL				<1.0%

See Addendum: Ref. PAGE:

4. FIRE AND EXPLOSION HAZARD DATA

Flash Point: ND

Flammable Limits In Air % by volume: Lower ND Upper

Extinguishing Media: DRY CHEMICAL, CO2 OR FOAM

Special Fire Fighting Procedures: DO NOT ENTER ENCLOSED SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT.THIS MAY INCLUDE SELF CONTAINED BREATHING APPARATUS TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF COMBUSTION PRODUCTS AND OXYGEN DEFICIENCIES.

Unusual Fire & Explosion Hazards: WHEN HEATED TO EXTREME THIS PRODUCT MAY RELEASE FLAMMABLE VAPORS, WHICH MAY BURN OR BE EXPLOSIVE IN CONFINED SPACES IF EXPOSED TO A SOURCE OF IGNITION. MIST MAY BE FLAMMABLE AT NORMAL TEMPERATURES. KEEP AWAY FROM EXTREME HEAT AND OPEN FLAME

WHITTEMORE-WRIGHT CO.
62 ALFORD STREET
CHARLESTOWN, MA 02129

PRODUCT NAME: MORITE AAOK
MSDS NUMBER: 24C
MSDS DATE: 01/01/01
PRODUCT CODE: FINISHED
KEY NUMBER:

5. HEALTH HAZARD DATA

See Addendum: PAGE #:

Threshold Limit Value: ND

Effects of Overexposure:

Inhalation: ND

Skin Contact: ND

Eye Contact: ND

Ingestion: ND

Delayed Effects: ND

Medical Conditions Aggravated by Exposure: ND

6. FIRST AID MEASURES

See Addendum: PAGE #:

Inhalation: PROVIDE FRESH AIR. IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION.

Skin Contact: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION.

Eye Contact: IMMEDIATELY FLUSH WITH PLENTY OF WATER. REMOVE CONTAMINATED CLOTHING. CALL A PHYSICIAN IF IRRITATION PERSISTS. WASH CLOTHING BEFORE REUSE.

Ingestion: IF SWALLOWED CALL A PHYSICIAN IMMEDIATELY. ONLY INDUCE VOMITING AT THE INSTRUCTIONS OF A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

NOTES TO PHYSICIAN:

7. REACTIVITY DATA

See Addendum: PAGE #:

Stability: STABLE UNDER NORMAL CONDITIONS, SLIGHTLY CORROSIVE

Incompatibility: (materials to avoid) VERY STRONG OXIDIZERS

Hazardous Combustion or Decomposition Products: NO

Hazardous Polymerization: NO

Conditions to Avoid: NONE KNOWN

8. SPILL OR LEAK PROCEDURES

See Addendum: PAGE #:

Actions to take for Leaks & Spills: STOP LEAKS. CLEAN UP LARGE SPILLS WITH VACUUM TRUCK. SOAK UP SMALL SPILLS WITH ABSORBENT MATERIAL AND PLACE IN LABELED WASTE CONTAINER FOR DISPOSAL. WEAR ADEQUATE PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT.

Waste Disposal Method: DISPOSE OF IN AN APPROVED CHEMICAL WASTE LANDFILL OR INCINERATE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

WHITTEMORE-WRIGHT CO.
62 ALFORD STREET
CHARLESTOWN, MA 02129

PRODUCT NAME: MORITE AAOK
MSDS NUMBER: 240
MSDS DATE: 01/01/01
PRODUCT CODE: FINISHED
KEY NUMBER:

9. SPECIAL PROTECTION INFORMATION

See Addendum: Ref. PAGE:

Respiratory Protection: RECOMMENDED UNDER ADVERSE CONDITIONS.

Eye Protection: CHEMICAL SPLASH GOGGLES RECOMMENDED.

Skin Protection: NEOPRENE GLOVES RECOMMENDED

Other Clothing: WEAR FULL PROTECTIVE CLOTHING UNDER ADVERSE CONDITIONS

Other Equipment: FOLLOW GOOD INDUSTRIAL PRACTICES.

Engineering Controls:

10. HANDLING AND STORAGE

See Addendum: Ref. PAGE:

Special Precautions: FOLLOW GOOD INDUSTRIAL PRACTICES

Other Precautions: WASH FACE AND HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET.

11. REGULATORY INFORMATION

See Addendum: Ref. PAGE:

Workplace Classification: NON HAZARDOUS

12. TOXICOLOGICAL INFORMATION

See Addendum: Ref. PAGE:

Acute Data: ND

Reproductive / Teratology Data: ND

13. ECOLOGICAL INFORMATION

See Addendum: Ref. PAGE:

Fate in the Environment: ND

14. DISPOSAL CONDITIONS

See Addendum: Ref. PAGE:

Procedures: DISPOSE OF IN AN APPROVED CHEMICAL WASTE LANDFILL OR INCINERATE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

15. TRANSPORTATION INFORMATION

See Addendum: Ref. PAGE:

DOT Classification: LIQUID SOAP CLASS 55

Warning Labels: NONE

Material Safety Data Sheet

NON-HAZ

PROUCT NAME: MORITE CTB NO.4M

MSDS NUMBER: 29

PRODUCT CODE: FINISHED

MSDS DATE: 06/01/98

KEY NUMBER:

EMERGENCY PHONE #'s: 617-242-1180

19-120607
Non HAZ

1	HEALTH	Slightly Hazardous
0	FIRE	Flash Point: Above 200°F, 93°C
0	REACTIVITY	Stable
B	SPECIFIC	-

1. IDENTIFICATION

See Addendum: Ref. PAGE:

Chemical Name: MORITE CTB NO.4M
Chemical Family: FATTY OIL
CAS #: N/A - MIXTURE
CAS Name: ND
Synonyms / Common Name: TRIGLYCERIDES
DOT Information: NON HAZARDOUS
Chemical Formula: ND
Molecular Weight: ND

2. PHYSICAL DATA

See Addendum: Ref. PAGE:

Appearance: THICK PASTE
Color: LIGHT BROWN
State: SOLID AT ROOM TEMP.
Odor Characteristics: ACETIC ACID SMELL
pH: 3.0 - 4.0
Viscosity: ND
Specific Gravity (Water = 1): ND
Vapor Density (Air = 1): ND
Vapor Pressure: ND
Melting Point: ND
Boiling Point: ND
Flash Point: ND
Freezing Point: ND
Percent Volatility: ND
Evaporation Rate (BAc = 1): ND
Solubility in Water: YES
Solubility in Oil: ND
Solubility in Acetone: ND

3. INGREDIENTS

See Addendum: Ref. PAGE:

Material / Components	CAS #:	CAS Name	TLV Units	Approx. %
ACETIC ACID	64-19-7	ACETIC ACID	10 PPM	4.0%
AMINES	61791-26-2		ND	3.0%
LUBRICATING OIL	64742-58-1		5MG/M3	11.0%

4. FIRE AND EXPLOSION HAZARD DATA

See Addendum: Ref. PAGE:

Flash Point: ND

Flammable Limits in Air % by volume: Lower ND, Upper

Extinguishing Media: DRY CHEMICAL, CO2 OR FOAM

Special Fire Fighting Procedures: DO NOT ENTER ENCLOSED SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT. THIS MAY INCLUDE SELF CONTAINED BREATHING APPARATUS TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF COMBUSTION PRODUCTS AND OXYGEN DEFICIENCIES.

Unusual Fire & Explosion Hazards: WHEN HEATED TO EXTREME THIS PRODUCT MAY RELEASE FLAMMABLE VAPORS, WHICH MAY BURN OR BE EXPLOSIVE IN CONFINED SPACES IF EXPOSED TO A SOURCE OF IGNITION. MIST MAY BE FLAMMABLE AT NORMAL TEMPERATURES. KEEP AWAY FROM EXTREME HEAT AND OPEN FLAME.

PRODUCT NAME: MORITE CTB NO.4M
MSDS NUMBER: 29
MSDS DATE: 06/01/98
PRODUCT CODE: FINISHED
KEY NUMBER:

5. HEALTH HAZARD DATA

See Addendum: PAGE #:

Threshold Limit Value: ND

Effects of Overexposure:

Inhalation: ND

Skin Contact: ND

Eye Contact: ND

Ingestion: ND

Delayed Effects: ND

Medical Conditions Aggravated by Exposure ND

6. FIRST AID MEASURES

See Addendum: PAGE #:

Inhalation: PROVIDE FRESH AIR. IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION.

Skin Contact: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATIO PERSISTS SEEK MEDICAL ATTENTION.

Eye Contact: IMMEDIATELY FLUSH WITH PLENTY OF WATER. REMOVE CONTAMINATED CLOTHING. CA L A PHYSICIAN IF IRRITATION PERSISTS. WASH CLOTHING BEFORE REUSE.

Ingestion: IF SWALLOWED CALL A PHYSICIAN IMMEDIATELY. ONLY INDUCE VOMITING AT THE INSTI UCTIONS OF A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCOUS PERSON.

NOTES TO PHYSICIAN:

7. REACTIVITY DATA

See Addendum: PAGE #:

Stability: STABLE UNDER NORMAL CONDITIONS, SLIGHTLY CORROSIVE

Incompatibility: (materials to avoid) VERY STRONG OXIDIZERS

Hazardous Combustion or Decomposition Products NO

Hazardous Polymerization: NO

Conditions to Avoid: NONE KNOWN

8. SPILL OR LEAK PROCEDURES

See Addendum: PAGE #:

Actions to take for Leaks & Spills STOP LEAKS. CLEAN UP LARGE SPILLS WITH VACUUM TRUCK. SOAK UP SMALL SPILLS V H ABSORBENT MATERIAL AND PLACE IN LABELED WASTE CONTAINER FOR DISPOSAL. WEAR ADEQUAT PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT.

Waste Disposal Method: DISPOSE OF IN AN APPROVED CHEMICAL WASTE LANDFILL OR INCINERATE IN ACCORD CE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

PRODUCT NAME: MORITE CTB NO.4M
MSDS NUMBER: 29
MSDS DATE: 06/01/98
PRODUCT CODE: FINISHED
KEY NUMBER:

9. SPECIAL PROTECTION INFORMATION

See Addendum: Ref. PAGE:

Resporatory Protection: RECOMMENDED UNDER ADVERSE CONDITIONS.

Eye Protection: CHEMICAL SPLASH GOGGLES RECOMMENDED.

Skin Protection: NEOPRENE GLOVES RECOMMENDED

Other Clothing: WEAR FULL PROTECTIVE CLOTHING UNDER ADVERSE CONDITIONS

Other Equipmet: FOLLOW GOOD INDUSTRIAL PRACTICES.

Engineering Controls:

10. HANDLING AND STORAGE

See Addendum: Ref. PAGE:

Special Precautions: FOLLOW GOOD INDUSTRIAL PRACTICES

Other Precautions: WASH FASE AND HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET.

11. REGULATORY INFORMATION

See Addendum: Ref. PAGE:

Workplace Classification: NON HAZARDOUS

12. TOXICOLOGICAL INFORMATION

See Addendum: Ref. PAGE:

Acute Data: ND

Reproductive / Teratology Data ND

13. ECOLOGICAL INFORMATION

See Addendum: Ref. PAGE:

Fate in the Environment: ND

14. DISPOSAL CONDITIONS

See Addendum: Ref. PAGE:

Procedures: DISPOSE OF IN AN APPROVED CHEMICAL WASTE LANDFILL OR INCINERATE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

15. TRANSPORTATION INFORMATION

See Addendum: Ref. PAGE:

DOT Classification: LIQUID SOAP CLASS 55

Warning Labels: NONE

Material Safety Data Sheet

0 HAVILAND®

MURIATIC ACID 20°, INHIBITED

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME ..... Haviland Products Company
MANUFACTURER'S ADDRESS ..... 421 Ann St., N.W., Grand Rapids, MI 49504
PHONE NUMBER ..... (616) 361-6691
EMERGENCY PHONE NUMBER ..... CHEMTREC (800) 424-9300
EFFECTIVE DATE 4/27/04
TRADE NAME ..... **MURIATIC ACID 20°, INHIBITED**
CHEMICAL FAMILY ..... Inorganic Acid

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	OSHA PEL	TLV (Units)	CAS NUMBER
**Hydrochloric Acid (Hydrogen Chloride) (31.5% by wt)	5ppm ceiling	5ppm Ceiling	7647-01-0
**Propargyl Alcohol (.01-.03% by wt)	1ppm (skin)	1ppm (skin)	107-19-7
Substituted Triazine	Not Established	Not Established	68411-63-2
Proprietary Mixture	Not Established	Not Established	Proprietary

SECTION III - PHYSICAL DATA

BOILING POINT ..... 183°F.
FREEZING POINT ..... -49°F
VAPOUR PRESSURE ..... 25 @ 20°C
VAPOUR DENSITY (air=1) 1.3
SOLUBILITY IN H20 ..... Completely
ODOUR AND APPEARANCE ..... Clear, Colorless to Slightly Yellow Liquid; Pungent Odor
SPECIFIC GRAVITY 1.16
pH ..... Not Established

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT AND METHOD OF DETERMINATION ..... Will Not Burn
LOWER EXPLOSIVE LIMIT (% by Volume) Not Applicable
UPPER EXPLOSIVE LIMIT (% by Volume) Not Applicable
MEANS OF EXTINCTION ..... As for Surrounding Fire.
SPECIAL FIRE FIGHTING PROCEDURES ..... Wear self contained breathing apparatus and full personal protective equipment when material is involved in fire.
UNUSUAL FIRE HAZARD ..... Reacts with most metals to produce flammable and explosive hydrogen gas. Explosive concentrations of Hydrogen may accumulate inside metal equipment.

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Material Safety Data Sheet

SECTION V - HEALTH HAZARD DATA

CARCINOGENICITY, REPRODUCTIVE EFFECTS	None
NTP?	No
IARC MONOGRAPHS?	No
OVER EXPOSURE EFFECTS	Corrosive to all exposed body tissues, conjunctivitis, burns, redness of exposed tissues, coughing, burns, possible choking, headaches, dizziness, nausea, vomiting.
PRIMARY ROUTE (S) OF ENTRY	Inhalation and Eye and Skin Contact
SPECIFIC FIRST AID PROCEDURES	In case of contact: Immediately flush eyes and skin with plenty of water for at least 15 minutes. For eyes get medical attention. If inhaled: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention. Ingestion: DO NOT INDUCE VOMITING. If conscious, give large quantities of water to dilute. Call a Physician Immediately.
EXPOSURE AGGRAVATED MEDICAL CONDITIONS	None Currently Known

SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY	Stable
CONDITIONS TO AVOID	Not Applicable
INCOMPATIBLE MATERIALS	most metals, strong oxidizers, alkalis, amines, esters, carbonates, cyanides, sulfides.
HAZARDOUS DECOMPOSITION PRODUCTS	Hydrogen gas, chlorine gas, hydrogen chloride gas.
HAZARDOUS POLYMERIZATION	Will Not Occur
POLYMERIZATION AVOID	Not Applicable

SECTION VII - SPILL OR LEAK PROCEDURE

LEAK AND SPILL PROCEDURES	Cover contaminated surface with Sodium Bicarbonate, Soda Ash, or Lime, mix and add water if necessary to form a slurry. Scoop slurry and wash site with Sodium Bicarbonate solution. spill area.
WASTE DISPOSAL	Neutralize with lime, limestone or soda ash. Dispose of in a licensed landfill or treatment facility. Comply with all federal, state and local regulations.

SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION	NIOSH/MSHA approved respirator for hydrogen chloride gas and/or mist.
VENTILATION	To maintain vapors below limits.
PROTECTIVE GLOVES	Rubber or other impervious material.
EYE PROTECTION	Splash proof chemical goggles.
OTHER PROTECTIVE EQUIPMENT	For operations where spills or splashing may occur, use an impervious body covering and boots. A safety shower and eye bath should be available.
HANDLING PROCEDURES AND EQUIPMENT	Store away from heat and strong alkalis. Wear protective equipment during handling.

SECTION IX - SPECIAL PRECAUTIONS

HAZARD CLASS	Corrosive, 8, PG II
DOT SHIPPING NAME	HYDROCHLORIC ACID, SOLUTION
UN NUMBER	UN1789
REPORTABLE QUANTITY (RQ)	5,000LBS.

REFERENCES	HMIS: H-3,F-0,R-0 MURAD20I **NOTE** Hazardous Component(s) subject to reporting under 40 CFR 372 (SARA Title III, Sec. 313).

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19 240598

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Brown DGV p

Substance key: KS9007
Version : 1 - 1 / USA

Revision Date: 01/04/2008
Date of printing :02/18/2008

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Brown DGV p**
Material number:	101778
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	1.6 - 1.7 %
Chromium (III) Compound		38 - 40 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (7440-47-3)
Chromium: Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. There have been no reports of any of these effects from the use of this product.

Known effects on other illnesses: Pre-existing skin conditions may be aggravated by exposure to this product.

Listed carcinogen:

IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 2* Flammability: 1 Reactivity: 0 Personal protection: B

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush the eyes with large amounts of water, occasionally lifting the upper and lower eyelids, for at least 15 minutes. Seek medical attention immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fighting fires involving this product as it will be a RCRA hazardous waste material.

Unusual fire and explosion hazards: Emits toxic fumes under fire conditions. This product presents no unusual fire or explosion hazards while sealed in a shipping container. During usage, if a dust cloud is generated, organic powders have the potential to be explosive with static spark or flame initiation.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wearing appropriate personal protective equipment, contain spill, ventilate area of spill or leak, remove all sparking devices or ignition sources, collect onto inert absorbent, and place in a suitable container.
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

Section 07 - Handling and storage

Advice on safe handling:

Avoid dust formation. Keep away from sources of ignition. Lead off electrostatic charges.
Avoid breathing dust and contact with skin, eyes,and clothing.
Wash thoroughly after handling.

Further info on storage conditions:

Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Values / Remarks
Chromium, metal and Cr III compounds	7440-47-3	US ACGIH Threshold Limit Values	Threshold Limit Value_Time Weighted Average	0.5 mg/m3

Respiratory protection: Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

Section 09 - Physical and chemical properties

Form: powder

Color: brown

Odor: none

pH: app. 6 (20 °C, 10 g/l)

Solubility in water: app. 50 g/l (20 °C)
soluble

Melting point : not applicable

Boiling point : not applicable

Section 10 - Stability and reactivity

Thermal decomposition: 210 °C
Method: isoperibolic decomposition test
Heating rate: 0 K/min

Thermal decomposition: 210 °C
Method: dynamic decomposition test

Chemical stability: Stable.

Hazardous Polymerization: Will not occur.
Conditions to avoid: None known.

Section 11 - Toxicological information

Product information:

Acute oral toxicity: LD50 > 5,000 mg/kg (rat)
Method: SANDOZ internal test

Acute dermal toxicity: LD50 > 5,000 mg/kg (rat)
Method: SANDOZ internal test

Skin irritation: non-irritant (rabbit)

Eye irritation: non-irritant (rabbit eye)

Sensitization: non-sensitizing (Guinea pig)

Section 12 - Ecological information

Product information:

Biodegradation: app. 34 % (14 d, TOC)
Method: HOECHST method

Fish toxicity: LC0 500 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss))
Method: mod. routine bioassay method of 1.11.74

LC50 700 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss))
Method: mod. routine bioassay method of 1.11.74

Bacteria toxicity: IC50 > 100 mg/l (activated sludge)
Method: OECD 209 * 1984 activated sludge.Respir.inhib.

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

RCRA hazardous waste:
See Waste Disposal Information in Section 13.
RCRA number: D007

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:
This product contains the chemical or chemicals listed below which are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act of 1986 ("SARA") and the requirements of 40 CFR Part 372:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	1.6 - 1.7 %
Chromium (III) Compound		38 - 40 %

Clean Water Act:
Contains priority pollutant chromium at concentrations greater than 0.1%.

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
Chromium	7440-47-3	1.6 - 1.7 %	5,000 Pounds

FDA:
This product is not registered with the FDA.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

MAY CAUSE SKIN, EYE OR RESPIRATORY TRACT IRRITATION IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION.

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use ventilation and/or respiratory protection in order to keep exposure below TLV values. Keep container closed when not in use.

In case of EYE CONTACT, flush with water for 15 minutes while holding eyelids open. If irritation develops, seek medical attention immediately. In case of SKIN CONTACT, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If IRRITATION develops get immediate medical help. If INHALED, remove individual to fresh air. If BREATHING is difficult, give oxygen and call a physician. If INGESTED, get immediate medical help. Never give anything by mouth to an unconscious person.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240598

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Brown DGV cp

Substance key: KS16192
Version : 1 - 3 / USA

Revision Date: 01/28/2005
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Brown DGV cp**
Material number:	135422
Synonyms:	C.I. Acid Brown 126
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	1 - 2 %
Chromium (III) Compound		< 50 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:

IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses with side shields.

Other protective equipment: None known

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	compacted dye
Color:	brown
Odor:	none
pH:	app. 6 (20 °C, 10 g/l)
Solubility in water:	app. 50 g/l (20 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: internal test
Acute dermal toxicity:	LD50 > 5,000 mg/kg (rat) Method: internal test
Skin irritation:	Non-irritating (rabbit) Method: internal test
Eye irritation:	Non-irritating (rabbit) Method: internal test
Sensitization:	non-sensitizing (Guinea pig) Method: OECD 406 * 1981 Guinea pig maximisation test

Section 12 - Ecological information

Product information:

Biodegradation:	app. 34 % (14 d, TOC)

Fish toxicity: LC50 700 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss))
Method: mod. routine bioassay method of 1.11.74

Bacteria toxicity: IC50 > 100 mg/l (activated sludge)
Method: OECD 209 * 1984 activated sludge.Respir.inhib.

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:

C ,
Cr ,
H ,
N ;
O ,
S ,

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	1 - 2 %

Chromium (III) Compound		< 50 %

Clean Water Act:
Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	1 - 2 %	5,000 LBS
CHROMIUM COMPOUNDS		< 50 %	

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:
Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

INHALATION OF DUST MAY IRRITATE LUNGS AND CAUSE DELAYED LUNG DAMAGE. IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. May cause mechanical irritation to eyes and skin.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these

recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240597

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Brown G p

Substance key: KS6764
Version: 1 - 4 / USA

Revision Date: 01/04/2008
Date of printing :02/18/2008

Section 01 - Product Information

Identification of the company:

Clariant Corporation
4000 Monroe Road
Charlotte, NC, 28205
Telephone No.: +1 704 331 7000

Information of the substance/preparation:
Product Safety 1-704-331-7710

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: **Melioderm HF Brown G p**
Material number: 101698
Chemical family: azo dyestuff/chromium complex anionic
Primary product use: leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 10 %
Chromium (III) Compound		< 50 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	yes
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:

IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by

flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Values / Remarks
Chromium, metal and Cr III compounds	7440-47-3	US ACGIH Threshold Limit Values	Threshold Limit Value_Time Weighted Average	0.5 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Splash-proof or dust-resistant goggles

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: powder

Color: brown

Odor: none

pH: app. 7 (20 °C, 10 g/l)

Solubility in water: 50 g/l (20 °C)
soluble

Density: 0.35 g/cm3

Melting point : not applicable

Boiling point : not applicable

Bulk density:

Section 10 - Stability and reactivity

Thermal decomposition: 170 °C
Method: isoperibolic decomposition test
Heating rate: 0 K/min

Thermal decomposition: 210 °C
Method: dynamic decomposition test

Chemical stability: Stable.

Hazardous Polymerization: Will not occur.
Conditions to avoid: None known.

Conditions to avoid: Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity: LD50 > 5,000 mg/kg (rat)

Skin irritation: Non-irritating (rabbit)

Eye irritation: Non-irritating (rabbit)

Section 12 - Ecological information

Product information:

Biodegradation: app. 20 % (14 d, TOC)
Method: HOECHST method

Fish toxicity: LC0 > 100 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss))
Method: mod. routine bioassay method of 1.11.74

Bacteria toxicity: IC50 > 100 mg/l (activated sludge)
Method: ETAD method 103

Section 13 - Disposal considerations

Waste disposal information:
This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

RCRA hazardous waste:
See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT not restricted

IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:
This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 10 %
Chromium (III) Compound		< 50 %

Clean Water Act:
Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not Available

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. INHALATION OF DUST MAY IRRITATE LUNGS AND CAUSE DELAYED LUNG DAMAGE. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and seek medical attention.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19.240597

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Brown G cp

Substance key: KS16193
Version : 1 - 3 / USA

Revision Date: 04/29/2005
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:

Clariant Corporation
4000 Monroe Road
Charlotte, NC, 28205
Telephone No.: +1 704 331 7000

Information of the substance/preparation:
Product Safety 1-704-331-7710

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: **Melioderm HF Brown G cp**
Material number: 135423
Chemical family: azo dyestuff/chromium complex anionic
Primary product use: leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 10 %
Chromium (III) Compound		< 50 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses: No known effects on other illnesses for this product.

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Remove contaminated clothing without delay. Immediately wash the skin with soap and water for at least 15 minutes under a safety shower. If redness or skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Respiratory protection:	Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.
Hand protection:	Butyl Rubber, PVC Or Neoprene.
Eye protection:	Splash-proof or dust-resistant goggles
Other protective equipment:	Clothing suitable to prevent skin contact.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	compacted dye
Color:	brown
Odor:	none
pH:	5 - 7 (20 °C, 10 g/l)
Solubility in water:	50 g/l (20 °C)
Solubility in water:	75 g/l (60 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat)
Skin irritation:	Non-irritating (rabbit)
Eye irritation:	Non-irritating (rabbit)
Sensitization:	non-sensitizing This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation:	app. 20 % (14 d, TOC)

Fish toxicity: LC0 > 100 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss))
Method: mod. routine bioassay method of 1.11.74

Bacteria toxicity: IC50 > 100 mg/l (activated sludge)
Method: ETAD method 103

Section 13 - Disposal considerations

Waste disposal information:
This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:
C ,
Cr ,
H ,
N ,
Na ,
O ,
S ,

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:
This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 10 %
Chromium (III) Compound		< 50 %

Clean Water Act:
Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not applicable

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 10 %	5,000 LBS
CHROMIUM COMPOUNDS		< 50 %	

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:
None Known

Label information:

CAUTION!

INHALATION OF DUST MAY IRRITATE LUNGS AND CAUSE DELAYED LUNG DAMAGE.

Good work practices dictate that care be taken to avoid skin and eye contact and ingestion. Washing after handling is advised.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and seek medical attention.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240655

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Brown R cp

Substance key: KS16194
Version : 1 - 1 / USA

Revision Date: 12/04/2004
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Brown R cp**
Material number:	135424
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		60 - 70 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	no
Skin contact:	no
Eye contact:	no
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses:	No known effects on other illnesses for this product.
Listed carcinogen:	IARC: No

NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: B

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: None required under normal conditions of use. If risk of inhalation may occur (dust, mist or aerosol), respiratory protective equipment must be selected and used in accordance with OSHA/NIOSH guidelines.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: None known

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	compacted dye
Color:	brown
Odor:	none
pH:	5.5 - 7.5 (20 °C, 10 g/l)
Solubility in water:	100 g/l (20 °C)
Solubility in water:	100 g/l (60 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	250 °C Method: isoperibolic decomposition test
Thermal decomposition:	270 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg Method: 1999/45/EC
Acute dermal toxicity:	LD50 > 2,000 mg/kg Method: 1999/45/EC
Skin irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Sensitization:	non-sensitizing This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation:	23 % (28 d, DOC) Method: test result of the active component according to OECD 302B
Fish toxicity:	LC50 509 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component according to OECD 203
Daphnia toxicity:	EC50 26 mg/l (48 h, daphnia magna (water flea)) Method: test result of the active component according to OECD 202
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: ETAD method 103

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:

C ,
Cr ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		60 - 70 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Content VOC (weight-%): 0.00 %

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 4 %	5,000 LBS
CHROMIUM COMPOUNDS		60 - 70 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

EPA issued a Significant New Use Rule (SNUR) in 40 CFR 721.2095 under section 5(a)(2) of TSCA applicable to Clariant, as well as customers, restricting the source and use of this material to non-domestic manufacture and the liquid form only. All SNUR substances are subject to TSCA Export Notification provisions.

Label information:

ATTENTION!

HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

Good work practices dictate that care be taken to avoid skin and eye contact and ingestion. Washing after handling is advised.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation:

remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19.240679

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Brown R liq

Substance key: KS1331
Version : 1 - 2 / USA

Revision Date: 01/28/2005
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Brown R liq**
Material number:	101750
Synonyms:	C.I. Acid Brown 432
Chemical family:	azo dyestuff/chromium complex in aqueous dispersion
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 1.5 %
Chromium (III) Compound		< 25 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	no
Skin contact:	no
Eye contact:	no
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:

IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: B

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: no flash point up to the boiling point

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: None known.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: None required in normal use of product.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	liquid
Color:	brown
Odor:	none
pH:	7 - 7.5 (20 °C)
Solubility in water:	(20 °C) miscible
Density:	1.087 g/cm3 (20 °C)
Melting point :	app. 23 °F
Boiling point :	> 212 °F
Viscosity / (dynamic):	15 mPa.s (20 °C)

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating (rabbit)
Eye irritation:	Non-irritating (rabbit)

Section 12 - Ecological information

Product information:

Biodegradation:	23 % (28 d, DOC) Method: test result of the active component according to OECD 302B
Fish toxicity:	LC50 > 100 mg/l (rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component according to OECD 203
Daphnia toxicity:	EC50 > 100 mg/l (48 h, daphnia magna (water flea)) Method: evaluated

Bacteria toxicity: IC50 > 100 mg/l (activated sludge)
Method: test result of the active component according to ETAD 103

Section 13 - Disposal considerations

Waste disposal information:
This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:
C ,
Cr ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:
See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:
This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 1.5 %
Chromium (III) Compound		< 25 %

Clean Water Act:
Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Content VOC (weight-%): 0.00 %

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 1.5 %	5,000 LBS
CHROMIUM COMPOUNDS		< 25 %	

FDA:
Permitted for Use per Section: NONE

This product is not registered with the FDA.

Section 16 - Other information

Other precautions:
EPA issued a Significant New Use Rule (SNUR) in 40 CFR 721.2095 under section 5(a)(2) of TSCA applicable to Clariant, as well as customers, restricting the source and use of this material to non-domestic manufacture and the liquid form only. All SNUR substances are subject to TSCA Export Notification provisions.

Label information:

CAUTION!

MAY CAUSE IRRITATION TO EYES AND SKIN

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear proper protective equipment. Keep container closed when not in use. Avoid contact with product. Wear proper protective equipment. Use with adequate ventilation and/or proper respiratory protection. Wash thoroughly after handling. Keep container closed when not in use.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove subject to fresh air. Seek medical assistance.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of

this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19.240 640

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Dark Brown R p

Substance key: KS6924
Version : 1 - 1 / USA

Revision Date: 12/06/2004
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Dark Brown R p**
Material number:	101701
Synonyms:	Dermafix Dark Brown R
Chemical family:	azo dyestuff/iron complex azo dyestuff/chromium complex -mixture anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	1 - 2.5 %
Chromium (III) Compound		25 - 29 %
Iron Complex Of Azo Dye		8 - 10 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed

below.

In general soluble iron compounds may irritate the respiratory tract. Some compounds pose toxicity risks if taken internally.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Remove contaminated clothing without delay. Immediately wash the skin with soap and water for at least 15 minutes under a safety shower. If redness or skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
iron(III) oxide
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Splash-proof or dust-resistant goggles

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Use adequate exhaust ventilation and/or dust collection to keep dust levels below exposure limits.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	powder
Color:	dark brown
Odor:	none
pH:	7.5 - 9.5 (20 °C, 10 g/l)
Solubility in water:	100 g/l (20 °C) soluble
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	170 °C Method: isoperibolic decomposition test Heating rate: 0 K/min
Thermal decomposition:	180 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Sensitization: sensitizing
This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation: approx. 30 - 50 % (14 d, TOC)
Method: evaluated

Fish toxicity: LC50 10 - 100 mg/l (rainbow trout (salmo gairdneri, oncorhynchus mykiss))
Method: Estimated value as the result of the calculation method (Directive 1999/45/EC).

Bacteria toxicity: IC50 > 100 mg/l (activated sludge)
Method: estimated from the components

Section 13 - Disposal considerations

Waste disposal information:
This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:
C ,
Cr ,
Fe ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:
See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no

Fire hazard: no
Immediate/acute: yes
Delayed/chronic: yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	1 - 2.5 %
Chromium (III) Compound		25 - 29 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	1 - 2.5 %	5,000 LBS
CHROMIUM COMPOUNDS		25 - 29 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN. MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT. MAY CAUSE SKIN SENSITIZATION

Avoid breathing dust. Wear proper respiratory protection. Avoid contact with skin, eyes, and clothing. Wash immediately from skin and wash thoroughly after handling. Use with adequate ventilation and/or proper respiratory protection. Wear proper protective equipment. Keep container closed when not in use.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240641

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Green G p

Substance key: KS1849
Version : 1 - / USA

Revision Date: 02/20/2008
Date of printing :02/20/2008

Section 01 - Product Information

Identification of the company:	Clariant Iberica Produccion, S.A. Gran Via, 16-20 L'Hospitalet de Llobregat (Barcelona), 08902 Telephone No.: +34 93 479 8200 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name: **Melioderm HF Green G p**
Material number: 106366
Chemical family: azo dyestuff/chromium complex anionic
Primary product use: leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 2.5 %
Chromium (III) Compound		30 - 40 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen: IARC: NO NTP: NO OSHA: NO
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Consult physician if exposure is extensive or if irritation occurs.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Store in a cool, dry, dark location. Keep containers closed when not in use. Avoid all contact with skin and eyes. Avoid breathing dust. Wear proper protective equipment. Observe all necessary precautions for handling fine organic powders to control dust. May present a dust explosion hazard. Reference exposure limit: ACGIH TLV for nuisance dust - 10 mg/m3 inhalable particulates 3 mg/m3 respirable particulates.

Further info on storage conditions:

Store in original container. Keep tightly sealed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Values / Remarks
Chromium metal and insol. Salts	7440-47-3	US OSHA Table Z-1 Limits for Air Contaminents [29 CFR 1910.1000]	8-hour Time Weighted Averages	1 mg/m3
Chromium, metal and Cr III compounds	7440-47-3	US ACGIH Threshold Limit Values	Threshold Limit Value_Time Weighted Average	0.5 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: powder

Color: dark green

Odor: none

pH: 7.5 - 9.5 (20 °C, 10 g/l)

Solubility in water: 100 g/l (20 °C)

Melting point : > 590 °F

Boiling point : not applicable

Section 10 - Stability and reactivity

Thermal decomposition: 170 °C
Method: isoperibolic decomposition test

Chemical stability: Stable.

Hazardous Polymerization: Will not occur.
Conditions to avoid: None known.

Conditions to avoid: None known.

Section 11 - Toxicological information

Product information:

Acute oral toxicity: LD50 > 2,000 mg/kg (rat)
Method: 1999/45/EC

Acute dermal toxicity: LD50 > 2,000 mg/kg (rat)
Method: 1999/45/EC

Skin irritation: Non-irritating (rabbit)
This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Eye irritation: irritant - risk of serious damage to eyes (rabbit eye)
This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Sensitization: non-sensitizing (Guinea pig)
This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation: < 10 % (28 d, DOC)
Method: test result of the active component.

Fish toxicity: LC50 54 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss))
Method: test result of the active component.

Daphnia toxicity: EC50 62 mg/l (48 h, daphnia magna (water flea))
Method: test result of the active component.

Algae toxicity: IC50 > 100 mg/l (72 h, Scenedesmus subspicatus 86.81 sag. green algae)
Method: test result of the active component.

Bacteria toxicity: IC50 > 100 mg/l (activated sludge)
Method: test result of the active component according to OECD 209

Section 13 - Disposal considerations

Waste disposal information:
This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

RCRA hazardous waste:
See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
One or more of the components of this product is not listed on the Toxic Substances Control Act (TSCA) Inventory. The product is thus sold under the restriction that it is only for use in research and development. This product must be used under the supervision of a technically qualified individual capable of understanding its potential hazards.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 Information:
This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 2.5 %
Chromium (III) Compound		30 - 40 %

Clean Water Act:
Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not tested

CERCLA Information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 2.5 %	5,000 LBS
CHROMIUM COMPOUNDS		30 - 40 %	

FDA:

Permitted for Use per Section: NONE

This product is not registered with the FDA.

Section 16 - Other information

Other precautions:

Warning: This product is to be used for purposes of research and development only. It must be used under the direct supervision of a technically qualified individual. Any other use will subject the user to penalties under the toxic substances control act and the regulations issued thereunder. avoid contact with skin and eyes. Wear proper protective equipment. wash thoroughly after handling.
Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.
EPA has given oral notification that this product will be subject to a Significant New Use Rule (SNUR) under Section 5(a)(2) of the Toxic Substances Control Act (TSCA). The SNUR will require submission of a notice to the EPA 90 days before manufacturing, processing, or use as a powder. All SNUR substances are subject to TSCA Export Notification provisions.

Label information:

CAUTION!

ORGANIC DUSTS HAVE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. MAY CAUSE IRRITATION IF INHALED OR CONTACT WITH SKIN OR EYES This product is not listed on the TSCA inventory. It is provided only for research and development under the supervision of an individual who is technically qualified to understand its potential hazards.

Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues. Ingestion: seek medical attention immediately.

NFPA:

Health: 2 Flammability: 1 Reactivity: 0

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended

for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240 641

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Green G cp

Substance key: KS16200
Version : 1 - 2 / USA

Revision Date: 05/10/2005
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Green G cp**
Material number:	135429
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 2.5 %
Chromium (III) Compound		30 - 40 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	no
Skin contact:	no
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses:	No known effects on other illnesses for this product.
Listed carcinogen:	IARC: No

NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: B

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: None required under normal conditions of use. If risk of inhalation may occur (dust, mist or aerosol), respiratory protective equipment must be selected and used in accordance with OSHA/NIOSH guidelines.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses.

Other protective equipment: None known

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	compacted dye
Color:	dark green
Odor:	none
pH:	6 - 8 (20 °C, 10 g/l)
Solubility in water:	100 g/l (20 °C)
Solubility in water:	100 g/l (60 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Acute dermal toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	irritant - risk of serious damage to eyes This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Sensitization:	non-sensitizing This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation:	< 10 % (28 d, DOC) Method: test result of the active component.

Fish toxicity:	LC50 54 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component.
Daphnia toxicity:	EC50 62 mg/l (48 h, daphnia magna (water flea)) Method: test result of the active component.
Algae toxicity:	IC50 > 100 mg/l (72 h, Scenedesmus subspicatus 86.81 sag. green algae) Method: test result of the active component.
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: test result of the active component according to OECD 209

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:

C ,
Cr ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of

the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 2.5 %
Chromium (III) Compound		30 - 40 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 2.5 %	5,000 LBS
CHROMIUM COMPOUNDS		30 - 40 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

EPA has given oral notification that this product will be subject to a Significant New Use Rule (SNUR) under Section 5(a)(2) of the Toxic Substances Control Act (TSCA). The SNUR will require submission of a notice to the EPA 90 days before manufacturing, processing, or use as a powder. All SNUR substances are subject to TSCA Export Notification provisions.

Label information:

CAUTION!

MAY CAUSE IRRITATION TO EYES. MAY CAUSE EYE DAMAGE HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the.material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-24656

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Grey GB p

Substance key: KS6576
Version : 1 - 3 / USA

Revision Date: 04/28/2006
Date of printing :02/18/2008

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name: **Melioderm HF Grey GB p**

Synonyms: Derma Grey GBL
Chemical family: azo dyestuff/chromium complex
anionic
Primary product use: leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 2 %
Chromium (III) Compound		< 50 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	yes
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses: No known effects on other illnesses for this product.
Listed carcinogen: IARC: No

NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: water
foam
dry powder

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing

with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses with side shields.

Other protective equipment: None known

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	powder
Color:	grey
Odor:	none
pH:	approx. 7 (20 °C, 100 g/l)
Solubility in water:	app. 50 g/l (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	210 °C Method: isoperibolic decomposition test Heating rate: 0 K/min
Thermal decomposition:	230 °C Method: dynamic decomposition test Spontaneous decomposition
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: 1999/45/EC
Acute dermal toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Sensitization:	non-sensitizing This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation: 21 - 28 % (TOC)
Method: HOECHST method

Fish toxicity: LC50 > 500 mg/l (96 h, common carp (cyprinus carpio))
Method: test result of the active component according to OECD 203

Daphnia toxicity: EC50 > 100 mg/l (24 h, daphnia magna (water flea))
Method: test result of the 'active component according to OECD 202

Bacteria toxicity: IC50 > 100 mg/l
Method: OECD 209 * 1984 activated sludge.Respir.inhib.

Section 13 - Disposal considerations

Waste disposal information:
This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

RCRA hazardous waste:
See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:
This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 2 %

Chromium (III) Compound		< 50 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 2 %	5,000 LBS
CHROMIUM COMPOUNDS		< 50 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN. INHALATION OF DUST MAY IRRITATE LUNGS AND CAUSE DELAYED LUNG DAMAGE.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues. Ingestion: do not induce vomiting. Seek immediate medical assistance.

believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240656

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Grey GB cp

Substance key: KS16198
Version : 1 - 1 / USA

Revision Date: 01/24/2005
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Grey GB cp**
Material number:	135427
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 2 %
Chromium (III) Compound		< 50 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses:	No known effects on other illnesses for this product.
Listed carcinogen:	IARC: No

NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: water
dry powder
foam

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing

with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses with side shields.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	compacted dye
Color:	grey
Odor:	none
pH:	app. 7 (20 °C, 100 g/l)
Solubility in water:	app. 50 g/l (20 °C) soluble
Density:	1 g/cm3
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	None known.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) The product has not been tested. The information is derived from the properties of the individual components.
Acute dermal toxicity:	LD50 > 2,000 mg/kg (rat) Method: Estimated value as the result of the calculation method (Directive 1999/45/EC).
Skin irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Sensitization:	non-sensitizing This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation:	36 % (28 d, DOC) Method: test result of the active component according to OECD 302B
Biodegradation:	< 10 % (28 d, BOD) Little or no biodegradation Method: test result of the active component according to OECD 301D
Fish toxicity:	LC0 560 mg/l (96 h, common carp (cyprinus carpio)) Method: test result of the active component according to OECD 203
	LC50 748 mg/l (96 h, common carp (cyprinus carpio)) Method: test result of the active component according to OECD 203
Daphnia toxicity:	EC50 216 mg/l (24 h, daphnia magna (water flea)) Method: test result of the active component according to OECD 202
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: test result of the active component according to OECD 209

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:

C ,
Cr ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 2 %
Chromium (III) Compound		< 50 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not applicable

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 2 %	5,000 LBS
CHROMIUM COMPOUNDS		< 50 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN. INHALATION OF DUST MAY IRRITATE LUNGS AND CAUSE DELAYED LUNG DAMAGE.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when

not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues. Ingestion: do not induce vomiting. Seek immediate medical assistance.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

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Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Navy RB cp

Substance key: KS16199
Version : 1 - 3 / USA

Revision Date: 10/17/2006
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Navy RB cp**
Material number:	135428
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		35 - 40 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	no
Skin contact:	yes
Eye contact:	no
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Based on positive results in animal testing (guinea pig), this product may cause skin sensitization.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: C

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: None required under normal conditions of use. If risk of inhalation may occur (dust, mist or aerosol), respiratory protective equipment must be selected and used in accordance with OSHA/NIOSH guidelines.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: None known

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	compacted dye
Color:	dark blue
Odor:	none
pH:	7 - 9 (20 °C, 10 g/l)
Solubility in water:	75 g/l (20 °C)
Solubility in water:	75 g/l (60 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Acute dermal toxicity:	LD50 > 2,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating (rabbit) Information based on the active ingredient.
Eye irritation:	Non-irritating (rabbit) Information based on the active ingredient.
Sensitization:	sensitizing (Guinea pig) Information based on the active ingredient.

Section 12 - Ecological information

Product information:

Biodegradation:	< 10 % (DOC) Method: test result of the active component according to OECD 302B
Fish toxicity:	LC0 32 mg/l (96 h, common carp (cyprinus carpio)) Method: test result of the active component according to OECD 203
	LC50 44 - 64 mg/l (96 h, common carp (cyprinus carpio)) Method: test result of the active component according to OECD 203
Daphnia toxicity:	EC50 > 100 mg/l (48 h, daphnia magna (water flea)) Method: test result of the active component.
Algae toxicity:	IC50 > 10 mg/l (72 h, Scenedesmus subspicatus 86.81 sag. green algae) Method: test result of the active component.
Bacteria toxicity:	IC50 > 100 mg/l (3 h, activated sludge) Method: test result of the active component according to OECD 209

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any

such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		35 - 40 %

Clean Water Act:
Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 4 %	5,000 LBS
CHROMIUM COMPOUNDS		35 - 40 %	

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:
EPA issued a Significant New Use Rule (SNUR) in 40 CFR 721.5284 under Section 5(a)(2) of TSCA applicable to Clariant, as well as customers, restricting the source and use of this material to non-domestic manufacture and non-powder form only. All SNUR substances are subject to TSCA Export Notification provisions.

Label information:

CAUTION!

Skin contact may cause skin sensitization.

Avoid contact with skin, eyes, and clothing. Wash immediately from skin and wash thoroughly after handling. Use with adequate ventilation and/or proper respiratory protection. Wear proper protective equipment. Keep container closed when not in use.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

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Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Orange G cp

Substance key: KS16201
Version : 1 - 3 / USA

Revision Date: 11/02/2006
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Orange G cp**
Material number:	135430
Chemical family:	azo dyestuff/cobalt complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Cobalt (as an integral part of the dye or pigment molecule)	7440-48-4	< 2 %
Cobalt compound		< 35 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Cobalt and Compounds of Cobalt (7440-48-4)
Cobalt and Compounds of Cobalt: No chronic effects are known nor have been reported for this compound unless the compound is specifically listed elsewhere in this section. Skin and eye lesions similar to allergic dermatitis have been reported for cobalt metal and dust. Hematologic, digestive, and,, pulmonary changes due to exposure to cobalt containing dust have also been reported. Cobalt and certain, mostly inorganic compounds of cobalt, have been reported to be carcinogenic in animal studies--human evidence is inadequate. No similar effects have been reported for this organic cobalt based product. Clariant internal exposure guideline: 0.02 mg/m3

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
cobalt oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:

Avoid breathing dust and contact with skin, eyes,and clothing.
Wash thoroughly after handling.

Further info on storage conditions:

Store in original container. Keep tightly sealed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
COBALT, METAL DUST AND FUME, AS CO	7440-48-4	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.05 mg/m3
COBALT AND INORGANIC COMPOUNDS, AS CO	7440-48-4	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.02 mg/m3
COBALT, ELEMENTAL, AND INORGANIC COMPOUNDS, AS /CO/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.02 mg/m3

Respiratory protection: None required under normal use. Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Splash-proof or dust-resistant goggles

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: compacted dye

Color: orange

Odor: none

pH: 6.8 - 8.8 (20 °C, 10 g/l)

Solubility in water:	100 g/l (20 °C)
Solubility in water:	100 g/l (60 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	None known.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat)
Skin irritation:	Non-irritating (rabbit) Method: 16CFR1500.41
Eye irritation:	Non-irritating (rabbit) Method: 16CFR1500.42

Section 12 - Ecological information

Product information:

Biodegradation:	app. 20 % (14 d, TOC)
Fish toxicity:	LC0 > 100 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
Bacteria toxicity:	IC50 > 1,000 mg/l (activated sludge) Method: ETAD method 103

Section 13 - Disposal considerations

Waste disposal information:
Incinerate or bury in landfill in accordance with federal, state, and local regulations.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted

IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Cobalt (as an integral part of the dye or pigment molecule)	7440-48-4	< 2 %
Cobalt compound		< 35 %

Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not tested

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
COBALT COMPOUNDS		< 35 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

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Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN.

Maintain good housekeeping for dust control. Avoid breathing dust. Use with adequate ventilation or appropriate respiratory protection. Wash thoroughly after handling. Keep container closed, when not in use.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:
This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Cobalt (as an integral part of the dye or pigment molecule)	7440-48-4	< 2 %
Cobalt compound		< 35 %

Clean Water Act:
Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
COBALT COMPOUNDS		< 35 %	

FDA:
This product has not been evaluated for FDA regulatory requirements.

Solubility in water:	100 g/l (20 °C) soluble
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	200 °C Method: isoperibolic decomposition test Heating rate: 0 K/min
Thermal decomposition:	200 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat)
Skin irritation:	Non-irritating (rabbit) Method: 16CFR1500.41
Eye irritation:	Non-irritating (rabbit) Method: 16CFR1500.42

Section 12 - Ecological information

Product information:

Biodegradation:	approx. 20 % (14 d, TOC) Method: HOECHST method
Fish toxicity:	LC0 > 100 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
Bacteria toxicity:	IC50 > 1,000 mg/l (activated sludge) Method: ETAD method 103

Section 13 - Disposal considerations

Waste disposal information:

Incinerate or bury in landfill in accordance with federal, state, and local regulations.

Steps to be taken in case of spill or leak:

Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:

Avoid breathing dust and contact with skin, eyes,and clothing.
Wash thoroughly after handling.

Further info on storage conditions:

Store in original container. Keep tightly sealed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
COBALT, METAL DUST AND FUME, AS CO	7440-48-4	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.05 mg/m3
COBALT AND INORGANIC COMPOUNDS, AS CO	7440-48-4	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.02 mg/m3
COBALT, ELEMENTAL, AND INORGANIC COMPOUNDS, AS /CO/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.02 mg/m3

Respiratory protection: None required under normal use. Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Splash-proof or dust-resistant goggles

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: powder

Color: orange

Odor: none

pH: approx. 5 (20 °C, 100 g/l)

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen: IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
cobalt oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

19-240665

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Orange G p

Substance key: KS6805
Version : 1 - 4 / USA

Revision Date: 11/02/2006
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Orange G p**
Material number:	101699
Synonyms:	C.I. Acid Orange 170
Chemical family:	azo dyestuff/cobalt complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Cobalt (as an integral part of the dye or pigment molecule)	7440-48-4	< 2 %
Cobalt compound		< 35 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Cobalt and Compounds of Cobalt (7440-48-4)
Cobalt and Compounds of Cobalt: No chronic effects are known nor have been reported for this compound unless the compound is specifically listed elsewhere in this section. Skin and eye lesions similar to allergic dermatitis have been reported for cobalt metal and dust. Hematologic, digestive, and,, pulmonary changes due to exposure to cobalt containing dust have also been reported. Cobalt and certain, mostly inorganic compounds of cobalt, have been reported to be carcinogenic in animal studies--human evidence is inadequate. No similar effects have been reported for this organic cobalt based product. Clariant internal exposure guideline: 0.02 mg/m3

MATERIAL SAFETY DATA SHEET

Clariant

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

(MELIO P-4898-U)
296654 VERSION: 01 REVISED DATE: 01/24/2001

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300
M_SCHULTZ

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

------ H M I S ------
HEALTH 2 *
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION H

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO P-4898-U
PRODUCT CODE: 296654
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: ALKYL PHOSPHATE
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
2-PROPOXY ETHANOL	2807-30-9	< 6	NOT ESTABLISHED
ORAL RAT LD50 3089 MG/KG			
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	< 6	NOT ESTABLISHED
ETHOXYLATED TRIDECYL ALCOHOL	24938-91-8	< 3	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION: X
EYE CONTACT: X
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

2-PROPOXY ETHANOL: LIQUID AND HIGH CONCENTRATIONS OF VAPOR ARE IRRITANTS TO THE SKIN AND EYE AND MAY CAUSE KIDNEY, SPLEEN AND RED BLOOD CELL DAMAGE, NAUSEA, VOMITING, DIARRHEA, AS WELL AS GENERAL CENTRAL NERVOUS SYSTEM EFFECTS LIKE HEADACHE AND DIZZINESS. IT CAN BE ABSORBED IN TOXIC AMOUNTS BY INHALATION AND SKIN ABSORPTION AS WELL AS INGESTION. 2-PROPOXY ETHANOL PRODUCES REPRODUCTIVE EFFECTS IN LABORATORY ANIMALS AT INHALATION DOSES WHICH SHOWED OTHER TOXIC EFFECTS IN THE MOTHERS. 2-PROPOXY ETHANOL WAS FOUND TO A MILD SKIN IRRITANT AND A SEVERE EYE

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

IRRITANT WHEN TESTED ON RABBITS.

GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL: GLYCOL ETHERS INCLUDE MONO- AND DI- ETHERS OF ETHYLENE GLYCOL, DIETHYLENE GLYCOL, AND TRIETHYLENE GLYCOL WHICH ARE REGULATED AS A CHEMICAL CATEGORY UNDER SARA SECTION 313 REGULATIONS. THE HEALTH EFFECTS OF GLYCOL ETHERS VARY WITH THE PARTICULAR GLYCOL ETHER. THESE EFFECTS MAY INCLUDE IRRITATION TO THE SKIN, EYES, RESPIRATORY TRACT, AND MUCOUS MEMBRANES. THEY MAY INCLUDE EFFECTS ON THE REPRODUCTIVE SYSTEM, INCLUDING REDUCTION OF SPERM COUNT OR BIRTH DEFECTS.

ETHOXYLATED ALCOHOL: SOME ETHOXYLATED ALCOHOLS HAVE BEEN KNOWN TO CAUSE SKIN AND EYE IRRITATION. ANY KNOWN SPECIFIC EFFECTS ARE LISTED BELOW.

KNOWN EFFECTS ON OTHER ILLNESSES:

PERSONS WITH PRE-EXISTING EYE OR SKIN DISORDERS OR IMPAIRED PULMONARY FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

IMMEDIATELY FLUSH UNDER RUNNING WATER FOR AT LEAST FIFTEEN MINUTES, OCCASIONALLY LIFTING UPPER AND LOWER EYELIDS. SEEK IMMEDIATE MEDICAL ATTENTION.

FIRST AID FOR SKIN:

IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. SEEK MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE. DESTROY CONTAMINATED SHOES.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

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SECTION 04 - FIRST AID MEASURES (CONT.)

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212 (100 C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON AND PHOSPHOROUS.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

DIKE OR DAM SPILL AREA TO PROHIBIT PRODUCT FROM ENTERING WATERWAY. VENTILATE THE AREA TO REMOVE VAPORS. SPILLS SHOULD BE TAKEN UP WITH SUITABLE ABSORBENT AND PLACED IN CONTAINERS. SPILL AREA CAN BE WASHED WITH WATER. COLLECT WASH WATER FOR APPROVED DISPOSAL.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING

SECTION 07 - HANDLING AND STORAGE (CONT.)

PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
IF USE CONDITIONS GENERATE VAPOR IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.

PROTECTIVE GLOVES:
RUBBER

EYE PROTECTION:
CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON AND RUBBER BOOTS ARE RECOMMENDED.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: CLEAR LIQUID, MILD ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 8.0 - 10.0
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.062 TYPICAL
BOILING POINT ('F): APPROX. 212
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): < 32 (0 C)
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 65-75% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
DENSITY: 8.86 LBS/GAL

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SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

VISCOSITY: APPROX. 25 CPS
SOLIDS: 24 - 28%
CLOUD POINT: UPPER > 176 F/LOWER, APPROX. 44.6 F

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: STRONG ACIDS AND STRONG OXIDIZING AGENTS.

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT AVAILABLE
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
RECOMMENDED DISPOSAL IS BY INCINERATION IN APPROVED SYSTEMS EQUIPPED WITH

SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

APPROPRIATE SCRUBBING DEVICES. MATERIAL MAY BE LANDFILLED IN CHEMICAL WASTE LANDFILLS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

SECTION 15 - REGULATORY INFORMATION (CONT.)

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 65-75% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	< 6	NO RQ

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

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4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO P-4898-U
296654 VERSION: 01 REVISED DATE: 01/24/2001

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CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

WARNING!
MAY CAUSE SEVERE EYE AND SKIN IRRITATION.

WARNING!
HARMFUL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN
POSSIBLE REPRODUCTIVE SYSTEM EFFECTS BASED ON ANIMAL DATA

LABEL PRECAUTIONS:

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. WEAR PROPER PROTECTIVE EQUIPMENT.

AVOID BREATHING FUMES AND VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION OR APPROPRIATE RESPIRATORY PROTECTION.

EYE CONTACT: FLUSH WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK IMMEDIATE MEDICAL ATTENTION.

SKIN CONTACT: FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. SEEK MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

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MELIO P-4898-U
296654 VERSION: 01 REVISED DATE: 01/24/2001

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SECTION 16 - OTHER INFORMATION (CONT.)

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO PROMUL 51 LIQUID
296722 VERSION: 01 REVISED DATE: 05/11/2000

Clariant

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO PROMUL 51 LIQUID
PRODUCT CODE: 296722
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS POLYURETHANE DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
DIBUTYLPHTHALATE	84-74-2	3-6	5 MG/M3 OSHA
LD50(ORAL)(RAT) - 8000 MG/KG			ACGIH
TRIETHYLAMINE	121-44-8	<1	25 PPM TWA
LD50(ORAL)(RAT) - 460 MG/KG			OSHA
LC50(INHALATION)(MAMMAL) - 6000 MG/M3			1 PPM TWA
			SKIN ACGIH
ALPHA-(4-NONYLPHENYL)-OMEGA-HYDROXY POLY (OXY-1,2-ETHANEDIYL), BRANCHED; ETHOXYLATED PHENOL	127087-87-0	<5	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

DIBUTYLPHTHALATE: PRODUCT IS AN EXPERIMENTAL TERATOGEN AND A HUMAN EYE IRRITANT. MALE REPRODUCTIVE EFFECTS HAVE BEEN REPORTED IN TESTING ON RATS AT THE CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY.

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

POSITIVE MUTAGENIC ACTIVITY HAS BEEN DETECTED IN SEVERAL IN VITRO STUDIES. IN GENERAL, UNCORROBORATED CASE REPORTS AND IN VITRO STUDIES, SUCH AS AMES TESTS, ARE USEFUL PIECES OF INFORMATION, BUT NOT DEFINITIVE FINDINGS OF HAZARDS.

TRIETHYLAMINE: MAY CAUSE SEVERE IRRITATION TO THE SKIN. INHALATION OF HIGH CONCENTRATIONS OF VAPOR WILL PRODUCE IRRITATION OF THE RESPIRATORY TRACT AND LUNGS. CONTACT WITH EYES MAY RESULT IN SEVERE IRRITATION. EXPOSURE TO CONCENTRATED VAPORS MAY RESULT IN CORNEAL EDEMA. EXPERIMENTS WITH LABORATORY ANIMALS HAVE SHOWN LIVER AND KIDNEY DAMAGE.

ETHOXYLATED NONYLPHENOL: MAY CAUSE EYE AND MILD SKIN IRRITATION. DEPENDING ON TEST, EYE IRRITATION RANGES FROM MILD IRRITATION TO CHEMICAL EYE BURNS. LD50: >3000 MG/KG. REPEATED CONTACT WITH SKIN MAY CAUSE DERMATITIS. PROLONGED OR WIDESPREAD CONTACT WITH SKIN MAY RESULT IN THE ABSORPTION OF POTENTIALLY HARMFUL AMOUNTS OF MATERIAL. OVEREXPOSURE VIA INHALATION MAY CAUSE IRRITATION OF MUCOUS MEMBRANES, HEADACHE, NAUSEA AND DROWSINESS. INGESTION MAY CAUSE ABDOMINAL DISCOMFORT, NAUSEA, AND DIARRHEA. IF MATERIAL IS DEPOSITED AS A LIQUID DIRECTLY INTO THE LUNGS, THIS SUBSTANCE CAN CAUSE LUNG INJURY. AT LARGE, MATERNALLY TOXIC, DOSAGE LEVELS, DEVELOPMENTAL EFFECTS (SKELETAL VARIATIONS) WERE OBSERVED IN RAT FETUSES. SIGNIFICANCE TO HUMANS OF THESE EFFECTS IS UNCLEAR. THESE EFFECTS ARE UNCLEAR.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

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CHARLOTTE, N.C. 28205

MELIO PROMUL 51 LIQUID
296722 VERSION: 01 REVISED DATE: 05/11/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 04 - FIRST AID MEASURES (CONT.)

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >200
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON AND NITROGEN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

PREVENT RUN OFF TO SEWERS AND BODIES OF WATER FROM FIRE FIGHTING INVOLVING THIS PRODUCT AS PRODUCT CONTAINS CLEAN WATER ACT PRIORITY POLLUTANTS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF

SECTION 06 - ACCIDENTAL RELEASE MEASURES (CONT.)

APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MILKY OPAQUE LIQUID, SLIGHT ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 7-8
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: ABOUT 1.05
BOILING POINT ('F): > 212
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE

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SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

LOSS ON DRYING(%): 65-75% WATER
VOC(EPA METHOD 24/24A): 2.2%
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS.

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SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

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SECTION 15 - REGULATORY INFORMATION (CONT.)

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS PRIORITY POLLUTANT DIBUTYLPHTHALATE AT CONCENTRATIONS GREATER THAN 0.1%. CONTAINS TRIETHYLAMINE AT CONCENTRATION > 0.1% A CWA SECTION 311 HAZARDOUS CHEMICAL.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 2.2%
LOSS ON DRYING (%): 65-75% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
DIBUTYLPHTHALATE	84-74-2	3-6	10
TRIETHYLAMINE	121-44-8	<1	5000

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

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SECTION 16 - OTHER INFORMATION (CONT.)

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

LABEL PRECAUTIONS:

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. WEAR PROPER PROTECTIVE EQUIPMENT.

AVOID BREATHING FUMES AND VAPORS. USE WITH ADEQUATE RESPIRATORY PROTECTION OR VENTILATION. KEEP CONTAINER CLOSED WHEN NOT IN USE.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

INHALATION: REMOVE SUBJECT TO FRESH AIR. SEEK MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE

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SECTION 16 - OTHER INFORMATION (CONT.)

AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

21-360508

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO PROMUL 53
296726 VERSION: 01 REVISED DATE: 06/21/2002

Clariant

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Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
TANNING DIV
123 N MAIN ST
ROCKFORD MI 493510000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1 *
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO PROMUL 53
PRODUCT CODE: 296726
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: POLYURETHANE IN AQUEOUS/ORGANIC DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
N-METHYLPYRROLIDONE	872-50-4	1 - 5	5 PPM/8 HR-SKIN
DIACETONE ALCOHOL	123-42-2	1 - 5	50 PPM OSHA ACGIH
LD50(ORAL)(RAT) - 4000 MG/KG			
DIOCTYL SULFOSUCCINATE, SODIUM SALT	577-11-7	1 - 5	NOT ESTABLISHED
LD50 (ORAL)(RAT) - 4200 MG/KG			
TRIETHYLAMINE	121-44-8	< 1	25 PPM TWA OSHA 1 PPM TWA SKIN ACGIH
LD50(ORAL)(RAT) - 460 MG/KG			
LC50(INHALATION)(MAMMAL) - 6000 MG/M3			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION: X
EYE CONTACT: X
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

N-METHYL PYRROLIDONE: CAN CAUSE MODERATE EYE IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. READILY ABSORBED THROUGH THE SKIN. PROLONGED EXPOSURE CAN CAUSE STOMACH PAINS, VOMITING AND DIARRHEA.

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

ANIMAL STUDIES HAVE SHOWN FETOTOXIC AND TERATOGENIC EFFECTS. THIS MATERIAL OR ITS EMISSIONS MAY AFFECT PREGNANCY AND/OR FETAL DEVELOPMENT. MODERATE SKIN IRRITANT. THIS MATERIAL MAY BE A SLIGHT HEALTH HAZARD IF INGESTED IN LARGE QUANTITIES. MATERIAL WAS NOT CARCINOGENIC IN RATS EXPOSED TO 0.4 MG/L VAPORS FOR 2 YEARS. NON-MUTAGENIC AS TESTED IN THE AMES TEST.

DIACETONE ALCOHOL: SKIN IRRITATION (RABBIT)(500 MG-OPEN) - MILD. EYE IRRITATION (RABBIT)(5 MG) - SEVERE. TCLO (HUMAN)(INHALATION) - 400 PPM. LD50 (RAT)(ORAL) - 4000 MG/KG. LD50 (MOUSE)(INTRAPERITONEAL) - 933 MG/KG. MODERATE TOXICITY VIA ORAL AND INTRAPERITONEAL ROUTES. AN IRRITANT TO EYES AND MUCOUS MEMBRANES. NARCOTIC IN HIGH CONCENTRATIONS. HAS BEEN SHOWN IN EXPERIMENTS TO CAUSE ANEMIA AND DAMAGE TO KIDNEYS AND AND LIVER.

SODIUM DIOCTYL SULFOSUCCINATE: ACUTE OVEREXPOSURE MAY CAUSE MILD TO SEVERE SKIN, EYE, AND MUCOUS MEMBRANE IRRITATION. THE ORAL LD50 IN RATS IS 1.9 G/KG, AND THE DERMAL LD50 IN RABBITS IS GREATER THAN 10.0 G/KG. THE 4-HOUR LC50 (RAT) IS ESTIMATED TO BE GREATER THAN 20 MG/L. THIS MATERIAL PRODUCED NO ADVERSE EFFECTS ON REPRODUCTIVE FUNCTION IN RATS ADMINISTERED IT OVER 3 GENERATIONS. NO DEVELOPMENTAL EFFECTS WERE OBSERVED IN A TERATOLOGY STUDY IN RATS AT DOSES WHICH WERE NOT MATERNALLY TOXIC.

TRIETHYLAMINE: MAY CAUSE SEVERE IRRITATION TO THE SKIN. INHALATION OF HIGH CONCENTRATIONS OF VAPOR WILL PRODUCE IRRITATION OF THE RESPIRATORY TRACT AND LUNGS. CONTACT WITH EYES MAY RESULT IN SEVERE IRRITATION. EXPOSURE TO CONCENTRATED VAPORS MAY RESULT IN CORNEAL EDEMA. EXPERIMENTS WITH LABORATORY ANIMALS HAVE SHOWN LIVER AND KIDNEY DAMAGE.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES,

SECTION 04 - FIRST AID MEASURES (CONT.)

OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

FIRST AID FOR SKIN:

REMOVE CONTAMINATED CLOTHING WITHOUT DELAY. IMMEDIATELY WASH THE SKIN WITH SOAP AND WATER UNDER A SAFETY SHOWER. IF REDNESS OR SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212 (100 C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY GENERATE OXIDES OF CARBON AND NITROGEN, AND HYDROGEN CYANIDE (HCN).

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

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4000 MONROE ROAD
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MELIO PROMUL 53
296726 VERSION: 01 REVISED DATE: 06/21/2002

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

IF USE CONDITIONS GENERATE VAPOR IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MILKY LIQUID, CHARACTERISTIC ODOR

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SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 7.0 - 9.0
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.01 G/CM3
BOILING POINT ('F): 212 (100 C)
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 65-75% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT:

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
DENSITY: 8.43 LBS/GAL
VISCOSITY (EFFLUX TIME): 11 - 20 S @ 68 F (20 C)
METHOD: 4 DIN 53211

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATIONS PROCEDURE OF THE PREPRARTIONS DIRECTIVE 88/379/EEC WITH THE BELOW RESULTS.
ACUTE ORAL TOXICITY: LD50: > 2000 MG/KG (RAT)
IRRITANT EFFECT ON SKIN: NON-IRRITANT (RABBIT)
IRRITANT EFFECT ON EYES: NON-IRRITANT (RABBIT)

SECTION 12 - ECOLOGICAL INFORMATION

CLARIANT CORPORATION
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SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

BIOLOGICAL ELIMINATION:

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS TRIETHYLAMINE AT CONCENTRATION > 0.1% A CWA SECTION 311 HAZARDOUS CHEMICAL.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 65-75% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
TRIETHYLAMINE	121-44-8	< 1	5000

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: YES

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SECTION 15 - REGULATORY INFORMATION (CONT.)

LISTED ON NDSL: NO
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

OTHER STATE REGULATORY INFORMATION:
CALIFORNIA (PROPOSITION 65)
THIS PRODUCT MAY CONTAIN A COMPONENT OR COMPONENTS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR REPRODUCTIVE TOXICITY:
-N-METHYLPYRROLIDONE (872-50-4)

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
REPEATED EXPOSURES MAY RESULT IN LIVER OR KIDNEY DAMAGE.

CAUTION!
A COMPONENT OF THIS PRODUCT HAS BEEN REPORTED TO BE FETOTOXIC AND TERATOGENIC BY DERMAL EXPOSURE.

CAUTION!
N-METHYLPYRROLIDONE CAN BE ABSORBED THROUGH THE SKIN.

LABEL PRECAUTIONS:

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MELIO PROMUL 53
296726 VERSION: 01 REVISED DATE: 06/21/2002

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1-800-424-9300

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SECTION 16 - OTHER INFORMATION (CONT.)

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. WEAR PROPER PROTECTIVE EQUIPMENT.

AVOID BREATHING FUMES AND VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION OR APPROPRIATE RESPIRATORY PROTECTION.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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SECTION 16 - OTHER INFORMATION (CONT.)

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
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MELIO PROMUL 68 LIQUID
296622 VERSION: 01 REVISED DATE: 05/15/2000

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WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1 *
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO PROMUL 68 LIQUID
PRODUCT CODE: 296622
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: ALIPHATIC POLYURETHANE-DISPERSION IN AQUEOUS SOLUTION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
N-METHYLPYRROLIDONE	872-50-4	1-5	5 PPM/8 HR-SKIN
TRIETHYLAMINE	121-44-8	< 1	25 PPM TWA
LD50(ORAL)(RAT) - 460 MG/KG			OSHA
LC50(INHALATION)(MAMMAL) - 6000 MG/M3			1 PPM TWA
			SKIN ACGIH

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION: X
EYE CONTACT:
INHALATION: X
INGESTION:

EFFECTS OF EXPOSURE:

N-METHYL PYRROLIDONE: CAN CAUSE MODERATE EYE IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. READILY ABSORBED THROUGH THE SKIN. PROLONGED EXPOSURE CAN CAUSE STOMACH PAINS, VOMITING AND DIARRHEA. ANIMAL STUDIES HAVE SHOWN FETOTOXIC AND TERATOGENIC EFFECTS. THIS MATERIAL OR ITS EMISSIONS MAY AFFECT PREGNANCY AND/OR FETAL DEVELOPMENT. MODERATE SKIN IRRITANT. THIS MATERIAL MAY BE A SLIGHT HEALTH HAZARD IF INGESTED IN LARGE QUANTITIES. MATERIAL WAS NOT CARCINOGENIC

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MELIO PROMUL 68 LIQUID
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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

IN RATS EXPOSED TO 0.4 MG/L VAPORS FOR 2 YEARS. NON-MUTAGENIC AS TESTED IN THE AMES TEST.

TRIETHYLAMINE: MAY CAUSE SEVERE IRRITATION TO THE SKIN. INHALATION OF HIGH CONCENTRATIONS OF VAPOR WILL PRODUCE IRRITATION OF THE RESPIRATORY TRACT AND LUNGS. CONTACT WITH EYES MAY RESULT IN SEVERE IRRITATION. EXPOSURE TO CONCENTRATED VAPORS MAY RESULT IN CORNEAL EDEMA. EXPERIMENTS WITH LABORATORY ANIMALS HAVE SHOWN LIVER AND KIDNEY DAMAGE.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT (°F): > 212

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:
THERMAL DECOMPOSITION MAY GENERATE OXIDES OF CARBON AND NITROGEN, AND HYDROGEN CYANIDE (HCN).

EXTINGUISHING MEDIA:
WATER: X
ALCOHOL FOAM:
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. WEAR APPROPRIATE PROTECTIVE EQUIPMENT. TAKE UP AS SUCH AND CONSIDER RECYCLING. DO NOT LET THE LIQUID DRAIN IN RIVERS, PONDS OR SEWER SYSTEMS. WASH AWAY SMALL AMOUNTS OR RESIDUE WITH PLENTY OF WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT. USE NIOSH APPROVED RESPIRATORS WHEN SPRAYING WITHOUT ADEQUATE REMOVAL BY SUCTION.

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: OPAQUE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 7.5 - 8.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.0 TYPICAL
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 60-70% WATER
VOC(EPA METHOD 24/24A): 0% CALCULATED
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY (EFFLUX TIME): 10 20 S @68 F (20 C) METHOD: 4 DIN 53211

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR

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SECTION 10 - STABILITY AND REACTIVITY (CONT.)

CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE FOR THE PREPARATIONS DIRECTIVE (88/379/EC).

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
65 % ANALYSIS: D.O.C. METHOD: EVALUATED

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: DAPHNIA MAGNA	LC 50: > 100	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

DATA FROM A SIMILAR PRODUCT.

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): 100
50% INHIBITION (MG/L): NOT DETERMINED
DATA FROM A SIMILAR PRODUCT

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

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MELIO PROMUL 68 LIQUID
296622 VERSION: 01 REVISED DATE: 05/15/2000

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SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 0% CALCULATED

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SECTION 15 - REGULATORY INFORMATION (CONT.)

LOSS ON DRYING (%): 60-70% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
TRIETHYLAMINE	121-44-8	< 1	5000

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
REPEATED EXPOSURES MAY RESULT IN LIVER OR KIDNEY DAMAGE.

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SECTION 16 - OTHER INFORMATION (CONT.)

CAUTION!
A COMPONENT OF THIS PRODUCT HAS BEEN REPORTED TO BE FETOTOXIC AND TERATOGENIC BY DERMAL EXPOSURE.

CAUTION!
N-METHYLPYRROLIDONE CAN BE ABSORBED THROUGH THE SKIN.

LABEL PRECAUTIONS:

AVOID BREATHING FUMES AND VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION OR APPROPRIATE RESPIRATORY PROTECTION.

AVOID CONTACT WITH PRODUCT. WEAR PROPER PROTECTIVE EQUIPMENT. WASH THOROUGHLY AFTER HANDLING PRODUCT.

AVOID CONTACT WITH SKIN. WEAR PROPER PROTECTIVE EQUIPMENT.

FIRST AID

EYE CONTACT:	IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
SKIN CONTACT:	WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
INGESTION:	SEEK PROMPT MEDICAL ATTENTION
INHALATION:	REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES

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SECTION 16 - OTHER INFORMATION (CONT.)

NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

CLARIANT CORPORATION
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MELIO PROMUL AP-39 LIQUID
296648 VERSION: 01 REVISED DATE: 08/04/1998

For Chemical Emergency
Call CHEMTREC - Day or Night
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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1 *
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO PROMUL AP-39 LIQUID
PRODUCT CODE: 296648
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS POLYURETHANE DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
N-METHYLPYRROLIDONE	872-50-4	2.5-10	5 PPM/8 HR-SKIN

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION: X
EYE CONTACT:
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

N-METHYL PYRROLIDONE: CAN CAUSE MODERATE EYE IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. READILY ABSORBED THROUGH THE SKIN. PROLONGED EXPOSURE CAN CAUSE STOMACH PAINS, VOMITING AND DIARRHEA. ANIMAL STUDIES HAVE SHOWN FETOTOXIC AND TERATOGENIC EFFECTS. THIS MATERIAL OR ITS EMISSIONS MAY AFFECT PREGNANCY AND/OR FETAL DEVELOPMENT. MODERATE SKIN IRRITANT. THIS MATERIAL MAY BE A SLIGHT HEALTH HAZARD IF INGESTED IN LARGE QUANTITIES. MATERIAL WAS NOT CARCINOGENIC IN RATS EXPOSED TO 0.4 MG/L VAPORS FOR 2 YEARS. NON-MUTAGENIC AS TESTED IN THE AMES TEST.

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY GENERATE OXIDES OF CARBON AND NITROGEN, AND HYDROGEN CYANIDE (HCN).

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

RUBBER APRON

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: YELLOWISH WHITE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 8-9
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: NOT AVAILABLE
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 75-80% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
DENSITY 1.0 G/ML @ 20'C
VISCOSITY 12 - 17 S @ 20'C

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NO IRRITATION POTENT

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MELIO PROMUL AP-39 LIQUID
296648 VERSION: 01 REVISED DATE: 08/04/1998

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SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

EYE IRRITATION-RABBIT: NO IRRITATION POTENT

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
DATA FROM A SIMILAR PRODUCT 35 % ANALYSIS: METHOD: OECD NO. 301 E

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: DAPHNIA	LC 50: >100	MG/L	TIME: 96	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

OECD GUIDELINE 202, PART I.

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): >100
50% INHIBITION (MG/L): NOT DETERMINED
DATA FROM A SIMILAR PRODUCT

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 75-80% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED

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SECTION 15 - REGULATORY INFORMATION (CONT.)

LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
REPEATED EXPOSURES MAY RESULT IN LIVER OR KIDNEY DAMAGE.

CAUTION!
A COMPONENT OF THIS PRODUCT HAS BEEN REPORTED TO BE FETOTOXIC AND TERATOGENIC BY DERMAL EXPOSURE.

CAUTION!
N-METHYLPYRROLIDONE CAN BE ABSORBED THROUGH THE SKIN.

LABEL PRECAUTIONS:

AVOID BREATHING FUMES AND VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION OR APPROPRIATE RESPIRATORY PROTECTION.

AVOID CONTACT WITH SKIN. WASH THOROUGHLY AFTER HANDLING.

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SECTION 16 - OTHER INFORMATION (CONT.)

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

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MELIO RESIN A-931 LIQUID
296114 VERSION: 01 REVISED DATE: 05/12/2000

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CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------
HEALTH 1
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO RESIN A-931 LIQUID
PRODUCT CODE: 296114
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: ACRYLATE POLYMER IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV

NONE UNDER 29 CFR 1910.1200
NONE UNDER TITLE III OF SARA
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION: X
INGESTION:

EFFECTS OF EXPOSURE:

MELIO RESIN A-827 LIQUID:
INHALATION
INHALATION OF VAPOR OR MIST CAN CAUSE THE FOLLOWING:
-HEADACHE-NAUSEA-IRRITATION OF NOSE, THROAT AND LUNGS

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF CONSCIOUS, GIVE THE PATIENT 1-2 GLASSES OF WATER (8-16 OZ.) AND CALL A DOCTOR. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. INDUCE VOMITING ONLY AT THE INSTRUCTIONS OF A DOCTOR OR NURSE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): NOT AVAILABLE
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY RESULT IN FORMATION OF ACRYLIC MONOMERS. RESIDUE WILL CONTAIN SILICA.

EXTINGUISHING MEDIA:

WATER: X

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MATERIAL CAN SPLATTER ABOVE 212 F (100 C). DRIED PRODUCT CAN BURN.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

WEAR PROPER PROTECTIVE EQUIPMENT. KEEP SPECTATORS AWAY. FLOOR MAY BE SLIPPERY; USE CARE TO AVOID FALLING. CONTAIN SPILLS IMMEDIATELY WITH INERT MATERIALS (E.G. SAND, EARTH). TRANSFER LIQUIDS AND SOLID DIKING MATERIAL TO SEPARATE SUITABLE CONTAINERS FOR RECOVERY OR DISPOSAL. KEEP SPILLS AND CLEANING RUNOFF OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP FROM FREEZING; MATERIAL MAY COAGULATE. THE MINIMUM RECOMMENDED STORAGE TEMPERATURE FOR THIS MATERIAL IS 34 F (1 C). THE MAXIMUM RECOMMENDED STORAGE TEMPERATURE FOR THIS MATERIAL IS 140 F (60 C).

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

IF USE CONDITIONS GENERATE VAPOR IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.

PROTECTIVE GLOVES:

NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

VENTILATION:

USE LOCAL EXHAUST VENTILATION WITH A MINIMUM CAPTURE VELOCITY OF 100 FT/MIN (0.5 M/SEC.) AT THE POINT OF VAPOR EVOLUTION.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MILKY WHITE LIQUID, AMINE ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 7.6 - 9.0
SOLUBILITY IN WATER: DILUTABLE
SPECIFIC GRAVITY: 1.0 - 1.2
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): 32 F (0 C)
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): 17 @ 68 F
VAPOR DENSITY (AIR=1): < 1 WATER
EVAPORATION RATE: < 1 WATER
LOSS ON DRYING(%): 63-65% WATER
VOC(EPA METHOD 24/24A): 0.4%
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: 20 CPS MAXIMUM

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: AVOID TEMPERATURES ABOVE 350 F (177 C), THE ONSET OF POLYMER DECOMPOSITION. THERMAL DECOMPOSITION IS DEPENDENT ON TIME AND TEMPERATURE.

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

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SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:

TYPICAL DATA FROM TOXICITY PROFILES FOR A NUMBER OF ACRYLIC EMULSIONS THAT ARE COMPOSITIONALLY SIMILAR TO THIS PRODUCT ARE AS FOLLOWS:

ORAL LD50 - RAT: > 5000 MG/KG
DERMAL LD50 - RAT: > 5000 MG/KG
SKIN IRRITATION - RABBIT: PRACTICALLY NON-IRRITATING
EYE IRRITATION - RABBIT: INCONSEQUENTIAL IRRITATION

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

COAGULATE THE EMULSION WITH FERRIC CHLORIDE OR SULFATE AND THEN LIME TO A CLEAR END-POINT. DECANT THE CLEAR LIQUID TO A CHEMICAL SEWER. LANDFILL OR INCINERATE REMAINING LIQUID AND CONTAMINATED SOLIDS. INCINERATION OF AS IS EMULSION IS POSSIBLE BUT IMPRACTICAL BECAUSE OF THE HIGH WATER CONTENT.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO RESIN A-931 LIQUID
296114 VERSION: 01 REVISED DATE: 05/12/2000

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 0.4%
LOSS ON DRYING (%): 63-65% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

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SECTION 15 - REGULATORY INFORMATION (CONT.)

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

MONOMER VAPORS CAN BE EVOLVED WHEN MATERIAL IS HEATED DURING PROCESS OPERATIONS. USE PROPER VENTILATION PROCEDURES.

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:
NONE

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

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SECTION 16 - OTHER INFORMATION (CONT.)

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

INGESTION: IF CONSCIOUS, GIVE THE PATIENT 1-2 GLASSES OF WATER (8-16 OZ.) SEEK MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. INDUCE VOMITING ONLY AT THE INSTRUCTIONS OF A DOCTOR OR NURSE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

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Spray Finish

MATERIAL SAFETY DATA SHEET

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4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO RESIN A-943
292124 VERSION: 01 REVISED DATE: 07/19/2001

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
TANNING DIV
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------	
HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO RESIN A-943
PRODUCT CODE: 292124
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: ACRYLIC EMULSION POLYMER
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV

NONE UNDER 29 CFR 1910.1200
NONE UNDER TITLE III OF SARA
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:
SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:
ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF CONSCIOUS, GIVE THE PATIENT 1-2 GLASSES OF WATER (8-16 OZ.) AND CALL A DOCTOR. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. INDUCE VOMITING ONLY AT THE INSTRUCTIONS OF A DOCTOR OR NURSE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY YIELD ACRYLIC MONOMERS.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
MATERIAL CAN SPLATTER ABOVE 212 F (100 C). DRIED PRODUCT CAN BURN.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
WEAR PROPER PROTECTIVE EQUIPMENT. KEEP SPECTATORS AWAY. FLOOR MAY BE SLIPPERY; USE CARE TO AVOID FALLING. CONTAIN SPILLS IMMEDIATELY WITH INERT MATERIALS (E.G. SAND, EARTH). TRANSFER LIQUIDS AND SOLID DIKING MATERIAL TO SEPARATE SUITABLE CONTAINERS FOR RECOVERY OR DISPOSAL. KEEP SPILLS AND CLEANING RUNOFF OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT. USE NIOSH APPROVED RESPIRATORS WHEN SPRAYING WITHOUT ADEQUATE REMOVAL BY SUCTION.

PROTECTIVE GLOVES:
NEOPRENE

EYE PROTECTION:
CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

CLARIANT CORPORATION
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MELIO RESIN A-943
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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

USE LOCAL EXHAUST VENTILATION WITH A MINIMUM CAPTURE VELOCITY OF 100 FT/MIN (0.5 M/SEC.) AT THE POINT OF VAPOR EVOLUTION.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MILKY WHITE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 7.0 - 8.0
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.1 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 60-70% WATER
VOC(EPA METHOD 24/24A): 1.04% MAXIMUM
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
DENSITY: 9.18 LBS/GAL

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: AVOID TEMPERATURES ABOVE 350 F (177 C), THE ONSET OF POLYMER DECOMPOSITION. THERMAL DECOMPOSITION IS DEPENDENT ON TIME AND TEMPERATURE.

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: STRONG OXIDIZING AGENTS

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING

SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

EYE IRRITATION-RABBIT: NON-IRRITATING

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
> 70 % ANALYSIS: METHOD: EVALUATED

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: RAINBOW TROUT	LC 50: > 100	MG/L	TIME: 96	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

EVALUATED

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): > 100
EVALUATED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
COAGULATE THE EMULSION WITH FERRIC CHLORIDE OR SULFATE AND THEN LIME TO A CLEAR END-POINT. DECANT THE CLEAR LIQUID TO A CHEMICAL SEWER. LANDFILL OR INCINERATE REMAINING LIQUID AND CONTAMINATED SOLIDS. INCINERATION OF AS IS EMULSION IS POSSIBLE BUT IMPRACTICAL BECAUSE OF THE HIGH WATER CONTENT.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS PRIORITY POLLUTANT ZINC COMPOUND AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 1.04% MAXIMUM
LOSS ON DRYING (%): 60-70% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION (CONT.)

EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

OTHER STATE REGULATORY INFORMATION:
CALIFORNIA (PROPOSITION 65)
THIS PRODUCT CONTAINS TRACE LEVELS OF A COMPONENT OR COMPONENTS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER:
-ETHYL ACRYLATE (140-88-5)

LABEL INFORMATION:
LABEL HAZARDS:
NONE

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15

SECTION 16 - OTHER INFORMATION (CONT.)

MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

INGESTION: IF CONSCIOUS, GIVE THE PATIENT 1-2 GLASSES OF WATER (8-16 OZ.) SEEK MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. INDUCE VOMITING ONLY AT THE INSTRUCTIONS OF A DOCTOR OR NURSE.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

Finish Dept

Clariant

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO STUCCO P PASTE
296074 VERSION: 01 REVISED DATE: 10/20/1999

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

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WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1 *
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO STUCCO P PASTE
PRODUCT CODE: 296074
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: POLYURETHANE WITH INCAPSULATED PROPELLANT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
N-METHYLPYRROLIDONE	872-50-4	2.5-5	5 PPM/8 HR-SKIN
TRIETHYLAMINE	121-44-8	0.5-2	25 PPM TWA
LD50(ORAL)(RAT) - 460 MG/KG			OSHA
LC50(INHALATION)(MAMMAL) - 6000 MG/M3			1 PPM TWA
			SKIN ACGIH

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION: X
EYE CONTACT:
INHALATION: X
INGESTION:

EFFECTS OF EXPOSURE:

N-METHYL PYRROLIDONE: CAN CAUSE MODERATE EYE IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. READILY ABSORBED THROUGH THE SKIN. PROLONGED EXPOSURE CAN CAUSE STOMACH PAINS, VOMITING AND DIARRHEA. ANIMAL STUDIES HAVE SHOWN FETOTOXIC AND TERATOGENIC EFFECTS. THIS MATERIAL OR ITS EMISSIONS MAY AFFECT PREGNANCY AND/OR FETAL DEVELOPMENT. MODERATE SKIN IRRITANT. THIS MATERIAL MAY BE A SLIGHT HEALTH HAZARD IF INGESTED IN LARGE QUANTITIES. MATERIAL WAS NOT CARCINOGENIC

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

IN RATS EXPOSED TO 0.4 MG/L VAPORS FOR 2 YEARS. NON-MUTAGENIC AS TESTED IN THE AMES TEST.

TRIETHYLAMINE: MAY CAUSE SEVERE IRRITATION TO THE SKIN. INHALATION OF HIGH CONCENTRATIONS OF VAPOR WILL PRODUCE IRRITATION OF THE RESPIRATORY TRACT AND LUNGS. CONTACT WITH EYES MAY RESULT IN SEVERE IRRITATION. EXPOSURE TO CONCENTRATED VAPORS MAY RESULT IN CORNEAL EDEMA. EXPERIMENTS WITH LABORATORY ANIMALS HAVE SHOWN LIVER AND KIDNEY DAMAGE.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

REMOVE SUBJECT TO FRESH AIR. SEEK MEDICAL AID IF LUNG IRRITATION PERSISTS OR IF BREATHING BECOMES DIFFICULT.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:
THERMAL DECOMPOSITION MAY GENERATE OXIDES OF CARBON, NITROGEN, SULFUR, AND TOXIC FUMES OF CYANIDES.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. WEAR APPROPRIATE PROTECTIVE EQUIPMENT. TAKE UP AS SUCH AND CONSIDER RECYCLING. DO NOT LET THE LIQUID DRAIN IN RIVERS, PONDS OR SEWER SYSTEMS. WASH AWAY SMALL AMOUNTS OR RESIDUE WITH PLENTY OF WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT. USE NIOSH APPROVED RESPIRATORS WHEN SPRAYING WITHOUT ADEQUATE REMOVAL BY SUCTION.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITE LIQUID, PRODUCT SPECIFIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 8.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 0.69 TYPICAL
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 50-60% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

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SECTION 10 - STABILITY AND REACTIVITY (CONT.)

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING,

SECTION 14 - TRANSPORT INFORMATION (CONT.)

SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS TRIETHYLAMINE AT CONCENTRATION > 0.1% A CWA SECTION 311 HAZARDOUS CHEMICAL.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 50-60% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
TRIETHYLAMINE	121-44-8	0.5-2	5000

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.

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SECTION 15 - REGULATORY INFORMATION (CONT.)

RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
REPEATED EXPOSURES MAY RESULT IN LIVER OR KIDNEY DAMAGE.

CAUTION!
A COMPONENT OF THIS PRODUCT HAS BEEN REPORTED TO BE FETOTOXIC AND TERATOGENIC BY DERMAL EXPOSURE.

CAUTION!
N-METHYLPYRROLIDONE CAN BE ABSORBED THROUGH THE SKIN.

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO STUCCO P PASTE
296074 VERSION: 01 REVISED DATE: 10/20/1999

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

LABEL PRECAUTIONS:

AVOID BREATHING FUMES AND VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION OR APPROPRIATE RESPIRATORY PROTECTION.

AVOID CONTACT WITH PRODUCT. WEAR PROPER PROTECTIVE EQUIPMENT. WASH THOROUGHLY AFTER HANDLING PRODUCT.

AVOID CONTACT WITH SKIN. WEAR PROPER PROTECTIVE EQUIPMENT.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO TOP 285 LIQUID
296502 VERSION: 01 REVISED DATE: 05/16/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------
HEALTH 1 *
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO TOP 285 LIQUID
PRODUCT CODE: 296502
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: PROTEIN IN MAINLY AQUEOUS SOLUTION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
CAPROLACTAM	105-60-2	2.5-10	DUST TWA-1MG/M3
LD50(ORAL)(RAT) - 1390 MG/KG			STEL-3MG/M3
			VAPOR TWA-5 PPM
			STEL-10 PPM
			OSHA AND ACGIH
TRIISOPROPANOLAMINE	122-20-3	<2.5	7 MG/M3 DOW
LD50(ORAL)(RAT) - 2520 MG/KG			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

CAPROLACTAM: SKIN (RABBIT)(500MG/24H) - MILD. EYE (RABBIT)(20 MG/KG) - SEVERE. TCLO (HUMAN)(INHALATION)(100 PPM) - IRRITANT. LD50 (RAT)(ORAL) - 2140 MG/KG. CARCINOGENIC DETERMINATION WAS NEGATIVE IN MICE AND RATS (NCI). TOXICITY IS MODERATE VIA ORAL AND SKIN. SEVERE EYE IRRITANT AND POSSIBLE CORNEAL DAMAGE. HUMAN INHALATION IRRITANT. REPEATED SKIN

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

CONTACT CAN RESULT IN CONTACT DERMATITIS AND ECZEMA. CONTACT WITH THE MOLTEN MATERIAL CAN RESULT IN THERMAL BURNS. WORKERS WHO WERE EXPOSED TO CAPROLACTAM VAPORS HAVE COMPLAINED OF NERVOUSNESS, HEARTBURN, A HEAVY FEELING IN THE STOMACH, STUFFY NOSE AND HEAD, NOSEBLEEDS, A BITTER TASTE, AND DRY, SPLITTING LIPS AND NOSE. ACUTE OVEREXPOSURE TO CAPROLACTAM MAY CAUSE CNS EFFECTS, INCLUDING RESPIRATORY STIMULATION, MILD CIRCULATORY DEPRESSION AND CONVULSIONS. ANIMAL STUDIES INDICATE THAT CAPROLACTAM MAY EFFECT THE LIVER AND KIDNEYS.

TRIISOPROPANOLAMINE: LD50 (RABBITS)(SKIN ABSORPTION) - > 5000 MG/KG. EYE CONTACT MAY CAUSE MODERATE IRRITATON WITH CORNEAL INJURY. PROLONGED OR REPEATED EXPOSURE MAY CAUSE SKIN IRRITATION, EVEN A BURN. A SINGLE, PROLONGED EXPOSURE IS NOT LIKELY TO RESULT IN SKIN ABSORPTION IN HARMFUL AMOUNTS. SINGLE DOSE ORAL TOXICITY IS LOW. AMOUNTS INGESTED INCIDENTAL TO INDUSTRIAL HANDLING ARE NOT LIKELY TO CAUSE INJURY; HOWEVER, INGESTION OF LARGE AMOUNTS MAY CAUSE INJURY. AT ROOM TEMPERTURES, EXPOSURES TO VAPORS ARE UNLIKELY DUE TO PHYSICAL PROPERTIES, HIGHER TEMPERATURES MAY GENERATE VAPOR LEVELS SUFFICIENT TO CAUSE IRRITATION. REPEATED EXCESSIVE EXPOSURES MAY CAUSE KIDNEY EFFECTS.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

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SECTION 04 - FIRST AID MEASURES (CONT.)

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212 CC
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON AND NITROGEN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

PREVENT RUN OFF TO SEWERS AND BODIES OF WATER FROM FIRE FIGHTING INVOLVING THIS PRODUCT AS PRODUCT CONTAINS CLEAN WATER ACT PRIORITY POLLUTANTS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

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MELIO TOP 285 LIQUID
296502 VERSION: 01 REVISED DATE: 05/16/2000

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For MSDS Info: (704) 331-7710
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SECTION 07 - HANDLING AND STORAGE (CONT.)

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

IF USE CONDITIONS GENERATE VAPOR IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: OPAQUE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 8.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.05 TYPICAL
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 67-77% WATER
VOC(EPA METHOD 24/24A): 3.7%
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

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SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE OF THE PREPARATIONS DIRECTIVE (88/379/EC).

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
50-100 % ANALYSIS: D.O.C. METHOD: EVALUATED

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: DAPHNIA MAGNA	LC 50: > 100	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

OECD GUIDELINE 202, PART I.

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): > 100
ACTIVATED SLUDGE

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

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SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

IF RECYCLING IS NOT POSSIBLE, DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS PRIORITY POLLUTANT NITROBENZENE AT CONCENTRATIONS GREATER THAN

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SECTION 15 - REGULATORY INFORMATION (CONT.)

0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 3.7%
LOSS ON DRYING (%): 67-77% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!

CLARIANT CORPORATION
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MELIO TOP 285 LIQUID
296502 VERSION: 01 REVISED DATE: 05/16/2000

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CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

REPEATED EXPOSURES MAY RESULT IN LIVER OR KIDNEY DAMAGE.

LABEL PRECAUTIONS:

AVOID BREATHING FUMES AND VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION OR APPROPRIATE RESPIRATORY PROTECTION.

AVOID CONTACT WITH PRODUCT. WEAR PROPER PROTECTIVE EQUIPMENT. WASH THOROUGHLY AFTER HANDLING PRODUCT.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

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CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

Clariant

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO TOP 288 LIQUID
296532 VERSION: 01 REVISED DATE: 06/29/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

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TANNING DIV
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO TOP 288 LIQUID
PRODUCT CODE: 296532
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: ALBUMIN, WAXES, OILS IN AQUEOUS SOLUTION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
CAPROLACTAM	105-60-2	2 - 6	DUST TWA-1MG/M3
LD50(ORAL)(RAT) - 1390 MG/KG			STEL-3MG/M3
			VAPOR TWA-5 PPM
			STEL-10 PPM
			OSHA AND ACGIH

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION: X
EYE CONTACT: X
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

CAPROLACTAM: SKIN (RABBIT)(500MG/24H) - MILD. EYE (RABBIT)(20 MG/KG) - SEVERE. TCLO (HUMAN)(INHALATION)(100 PPM) - IRRITANT. LD50 (RAT)(ORAL) - 2140 MG/KG. CARCINOGENIC DETERMINATION WAS NEGATIVE IN MICE AND RATS (NCI). TOXICITY IS MODERATE VIA ORAL AND SKIN. SEVERE EYE IRRITANT AND POSSIBLE CORNEAL DAMAGE. HUMAN INHALATION IRRITANT. REPEATED SKIN CONTACT CAN RESULT IN CONTACT DERMATITIS AND ECZEMA. CONTACT WITH THE MOLTEN MATERIAL CAN RESULT IN THERMAL BURNS. WORKERS WHO WERE EXPOSED

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

TO CAPROLACTAM VAPORS HAVE COMPLAINED OF NERVOUSNESS, HEARTBURN, A HEAVY FEELING IN THE STOMACH, STUFFY NOSE AND HEAD, NOSEBLEEDS, A BITTER TASTE, AND DRY, SPLITTING LIPS AND NOSE. ACUTE OVEREXPOSURE TO CAPROLACTAM MAY CAUSE CNS EFFECTS, INCLUDING RESPIRATORY STIMULATION, MILD CIRCULATORY DEPRESSION AND CONVULSIONS. ANIMAL STUDIES INDICATE THAT CAPROLACTAM MAY EFFECT THE LIVER AND KIDNEYS.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:
NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:
FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:
WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:
GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:
IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:
NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 200 CC
FLAMMABLE LIMITS:
LEL: UNKNOWN

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON AND NITROGEN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: DULL YELLOWISH LIQUID, SLIGHT ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.04 TYPICAL
BOILING POINT ('F): APPROX. 212
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 75-85% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO TOP 288 LIQUID
296532 VERSION: 01 REVISED DATE: 06/29/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

SECTION 14 - TRANSPORT INFORMATION (CONT.)

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 75-85% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION (CONT.)

LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

OTHER STATE REGULATORY INFORMATION:

CONTAINS:

<0.02%	NJ TSRN 678290-00-2-5000-P-WAX
<0.02%	NJ TSRN 678290-00-2-5001-P-WAX
<0.02%	NJ TSRN 678290-00-2-5002-P-WAX

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

LABEL PRECAUTIONS:

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. WEAR PROPER PROTECTIVE EQUIPMENT.

AVOID BREATHING FUMES AND VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION OR APPROPRIATE RESPIRATORY PROTECTION.

FIRST AID

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO TOP 288 LIQUID
296532 VERSION: 01 REVISED DATE: 06/29/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 178 LIQUID
296104 VERSION: 01 REVISED DATE: 05/17/2000

Clariant

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO WAX 178 LIQUID
PRODUCT CODE: 296104
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS ALBUMINOUS MATTER (CASEIN)
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
NONE UNDER 29 CFR 1910.1200			
NONE UNDER TITLE III OF SARA			
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 178 LIQUID
296104 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSTION MAY GENERATE OXIDES OF CARBON AND NITROGEN, AND HYDROGEN CHLORIDE.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 178 LIQUID
296104 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

IF USE CONDITIONS GENERATE VAPOR IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 178 LIQUID
296104 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: CLEAR AMBER LIQUID, BLAND ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 8.5 - 10.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 0.96 TYPICAL
BOILING POINT ('F): 215 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 63-67% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: STRONG OXIDIZING AGENTS

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE ACUTE ORAL TOXICITY OF THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE OF THE PREPARATIONS DIRECTIVE (88/379/EC).
IRRITANT EFFECT ON SKIN (RABBIT) WAS EVALUATED.
IRRITANT EFFECT ON EYES (RABBIT) WAS EVALUATED.

SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
WASTE DISPOSAL SHOULD BE IN ACCORDANCE WITH EXISTING FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS. INCINERATION IN AN APPROVED, CONTROLLED FURNACE WITH COMBUSTION GAS SCRUBBING AND EMISSION GAS CONTROL.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 178 LIQUID
296104 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 15 - REGULATORY INFORMATION (CONT.)

PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

WARNING!
VAPORS GENERATED AT HIGH TEMPERATURES MAY CAUSE IRRITATION TO THE UPPER RESPIRATORY TRACT.

LABEL PRECAUTIONS:

WEAR PROPER PROTECTIVE EQUIPMENT. USE WITH ADEQUATE VENTILATION.

FIRST AID
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
INGESTION: SEEK PROMPT MEDICAL ATTENTION
INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

SECTION 16 - OTHER INFORMATION (CONT.)

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

Spray Finish

MATERIAL SAFETY DATA SHEET

Clariant

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 180 LIQUID
296102 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
TANNING DIV
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------
HEALTH 1
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO WAX 180 LIQUID
PRODUCT CODE: 296102
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS WAX DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
NONE UNDER 29 CFR 1910.1200			
NONE UNDER TITLE III OF SARA			
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)

EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 180 LIQUID
296102 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:
FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:
WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:
GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:
IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:
NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212 (100 C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:
DECOMPOSITION PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:
WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP FROM FREEZING.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

For Chemical Emergency
Call CHEMTREC - Day or Night
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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MILKY LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 7.5 - 8.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.01 TYPICAL
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 80-85% WATER
VOC(EPA METHOD 24/24A): 2.9%
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE OF THE PREPARATIONS DIRECTIVE (88/379/EC).

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 180 LIQUID
296102 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 180 LIQUID
296102 VERSION: 01 REVISED DATE: 05/17/2000

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CLARIANT Corporation: (704) 331-7000

SECTION 15 - REGULATORY INFORMATION (CONT.)

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 2.9%
LOSS ON DRYING (%): 80-85% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 180 LIQUID
296102 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
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1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

OTHER PRECAUTIONS:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:
NONE

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
INGESTION: SEEK PROMPT MEDICAL ATTENTION
INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 180 LIQUID
296102 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 187 LIQUID
296117 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------
HEALTH 1
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO WAX 187 LIQUID
PRODUCT CODE: 296117
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS WAX DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
NONE UNDER 29 CFR 1910.1200			
NONE UNDER TITLE III OF SARA			
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:
SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:
ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 187 LIQUID
296117 VERSION: 01 REVISED DATE: 05/17/2000

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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM:
CO2: X
DRY CHEMICAL: X

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4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 187 LIQUID
296117 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
IF USE CONDITIONS GENERATE VAPOR IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

CLARIANT CORPORATION
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CHARLOTTE, N.C. 28205

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: OPAQUE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 7.5 - 8.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.01 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 24-30% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY (EFFLUX TIME): 10 - 20 S @ 20'C (68'F) METHOD: 4 DIN 53211

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE OF THE PREPARATIONS DIRECTIVE (88/379/EC).

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 187 LIQUID
296117 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
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1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

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CLARIANT Corporation: (704) 331-7000

SECTION 14 - TRANSPORT INFORMATION (CONT.)

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 24-30% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WAX 187 LIQUID
296117 VERSION: 01 REVISED DATE: 05/17/2000

For Chemical Emergency
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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 15 - REGULATORY INFORMATION (CONT.)

PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:
NONE

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

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CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

Clariant

LARIANT CORPORATION
000 MONROE ROAD
HARLOTTE, N.C. 28205

MELIO WF-5226 LIQUID
292110 VERSION: 01 REVISED DATE: 05/18/2000

or Chemical Emergency
all CHEMTREC - Day or Night
-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

------ H M I S ------
HEALTH 2 *
FLAMMABILITY 2
REACTIVITY 0
PERSONAL PROTECTION C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO WF-5226 LIQUID
PRODUCT CODE: 292110
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
HEMICAL FAMILY: SILICONE DISPERSION IN AQUEOUS ORGANIC SYSTEM
FORMULA: MIXTURE
RIMARY PRODUCT USE: LEATHER FINISHING

ECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
DIETHYLENE GLYCOL	111-46-6	10-25	50 PPM TWA AIHA
BUTYL CELLOSOLVE (2-BUTOXY ETHANOL)	111-76-2	2.5-10	ACGIH TWA SKIN
LD50(ORAL)(RAT) - [470 - 1480 MG/KG]			20 PPM
LC50(INHALATION)(RAT)(4HR) - 450 PPM			97 MG/M3
			OSHA TWA SKIN
			50 PPM
			240 MG/M3
PROPYLENE GLYCOL MONOMETHYL ETHER;	107-98-2	10-15	TWA-100 PPM
1-METHOXY-2-PROPANOL			STEL-150 PPM
LD50(ORAL)(RAT) - 36000 MG/KG			OSHA
			100 PPM ACGIH
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	6-8	NOT ESTABLISHED
ETHOXYLATED ALCOHOLS	ETHOXALC	2.5-10	NOT ESTABLISHED

CTION 03 - HAZARDS IDENTIFICATION

EFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
PECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION: X
EYE CONTACT:
INHALATION: X
INGESTION: X

S (Sara)

MATERIAL SAFETY DATA SHEET

LARIANT CORPORATION
000 MONROE ROAD
HARLOTTE, N.C. 28205

MELIO WF-5226 LIQUID
292110 VERSION: 01 REVISED DATE: 05/18/2000

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

EFFECTS OF EXPOSURE:

DIETHYLENE GLYCOL: SKIN IRRITATION (HUMAN) (112 MG/3D-I) - MILD. SKIN IRRITATION (RABBIT) (500 MG) - MILD. LD50 (RAT) (ORAL) - >12565 MG/KG. LD50 (RAT) (INTRAPERITONEAL) - >7700 MG/KG. LD50 (RABBIT) (SKIN) - >11890 MG/KG. INGESTION: MODERATELY HIGH TOXICITY. MAY CAUSE PAIN OR DISCOMFORT IN THE ABDOMEN, PAIN IN THE LUMBAR REGION, NAUSEA, VOMITING, DIARRHEA, DIZZINESS, DROWSINESS, DECREASED URINE PRODUCTION, MALAISE, AND LOSS OF CONSCIOUSNESS. SEVERE KIDNEY DAMAGE MAY OCCUR WHICH CAN BE FATAL IF NOT PROMPTLY AND ADEQUATELY TREATED. LIVER INJURY MAY ALSO OCCUR. SKIN ABSORPTION: NO EVIDENCE OF ADVERSE HEALTH EFFECTS FOR AVAILABLE INFORMATION. INHALATION: SHORT-TERM ADVERSE HEALTH EFFECTS ARE NOT EXPECTED FROM EXPOSURE TO VAPOR GENERATED AT AMBIENT TEMPERATURE. AEROSOL OR VAPOR FORMED BY HEATING THE MATERIAL MAY CAUSE NAUSEA AND HEADACHE. SKIN CONTACT: NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION. EYE CONTACT: MAY CAUSE MILD DISCOMFORT. EXCESS REDNESS OF THE CONJUNCTIVA MAY OCCUR. EFFECTS OF REPEATED OVEREXPOSURE: INHALATION OF MIST MAY PRODUCE HEADACHE, NAUSEA, AND DIZZINESS. SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION: A CHRONIC DIETARY FEEDING STUDY WITH RATS SHOWED MILD KIDNEY INJURY AT 1% WHILE CONCENTRATIONS OF 2% AND 4% CAUSED MORE MARKED KIDNEY INJURY. IN ADDITION, AT 2% AND 4% OF DIETHYLENE GLYCOL IN THE DIET, SOME RATS DEVELOPED BENIGN PAPILLARY TUMORS IN THE URINARY BLADDER. THESE HAVE BEEN ATTRIBUTED TO THE PRESENCE OF URINARY BLADDER CALCIUM OXALATE STONES. NO EVIDENCE FOR CARCINOGENICITY WAS FOUND WITH A CHRONIC SKIN PAINTING STUDY WITH DIETHYLENE GLYCOL IN MICE. THE ABSENCE OF DIRECT CHEMICAL CARCINOGENIC EFFECTS IS IN ACCORD WITH THE RESULTS OF IN VITRO GENOTOXICITY STUDIES WHICH SHOW THAT IT DOES NOT PRODUCE MUTAGENIC OR CLASTOGENIC EFFECTS. A FEEDING STUDY EMPLOYING VERY HIGH CONCENTRATIONS OF DIETHYLENE GLYCOL IN THE DIET FAILED TO PRODUCE ANY TERATOGENIC EFFECTS. IN A MOUSE CONTINUOUS BREEDING STUDY WITH LARGE DOSAGES OF DIETHYLENE GLYCOL IN DRINKING WATER, THERE WAS EVIDENCE FOR REPRODUCTIVE TOXICITY AT 3.5% (EQUIVALENT TO 6.1 G/KG/DAY) AS REDUCED NUMBER OF LITTERS, LIVE PUPS PER LITTER, AND LIVE PUP WEIGHT. NO SUCH EFFECTS WERE SEEN AT 1.75% (APPROXIMATELY 3.05 G/KG/DAY) AND LOWER. THE RELEVANCE OF THESE VERY HIGH DOSAGES TO HUMAN HEALTH IS UNCERTAIN. PREGNANT RATS RECEIVING UNDILUTED DIETHYLENE GLYCOL BY GAVAGE OVER THE PERIOD OF ORGANOGENESIS HAD TOXIC EFFECTS AT 4.0 AND 8.0 ML/KG/DAY. MORTALITY, DECREASED BODY WEIGHT, DECREASED FOOD CONSUMPTION, INCREASED WATER CONSUMPTION, AND INCREASED LIVER AND KIDNEY WEIGHTS WERE OBSERVED AT ONE OR BOTH DOSAGES. FETOTOXICITY WAS SEEN ONLY AT THESE MATERNALLY TOXIC DOSAGES. DECREASED FETAL BODY WEIGHT OCCURRED AT 8.0 ML/KG, AND INCREASED SKELETAL VARIANTS AT 4.0 AND 8.0 ML/KG/DAY. NO EMBRYOTOXIC OR TERATOGENIC EFFECTS WERE SEEN. NEITHER MATERNAL TOXICITY NOR FETOTOXICITY OCCURRED AT 1.0 ML/KG/DAY. IN A STUDY WITH MICE ALSO RECEIVING UNDILUTED DIETHYLENE GLYCOL OVER THE PERIOD OF ORGANOGENESIS, MATERNAL TOXICITY OCCURRED AT 2.5 AND 10.0

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

ML/KG/DAY, BUT NOT AT 0.5 ML/KG/DAY. DEFINITIVE DEVELOPMENTAL TOXICITY WAS NOT SEEN IN THIS SPECIES.

BUTYL CELLOSOLVE: TCLO (HUMAN)(8 HR) - 195 PPM. ORAL LD50 (RAT) -[470 - 1480 MG/KG]. TERATOLOGY STUDIES CONDUCTED BY DOW CHEMICAL SHOW THAT RATS EXPOSED AT 300 PPM SHOWED EFFECTS OF MATERNAL AND EMBRYO LETHALITY; AT 200 PPM SHOWED MATERNAL TOXICITY, EMBRYO TOXICITY AND FETOTOXICITY; AT 50 PPM SHOWED NO OBSERVED EFFECT. A MILD EYE AND MUCOUS MEMBRANE IRRITANT AND HEMOLYTIC AGENT. ACUTE EXPOSURE HAS PRODUCED EYE, NOSE AND THROAT IRRITATION. EYE CONTACT WITH THE LIQUID PRODUCES MARKED PAIN AND IRRITATION. SYSTEMIC EFFECTS OBSERVED IN ANIMALS INCLUDE HEMOLYSIS, LIVER AND KIDNEY DAMAGE AND PULMONARY HEMORRHAGE. THE THRESHOLD LIMIT WAS ADOPTED TO PREVENT SYSTEMIC EFFECTS. MODERATELY TOXIC BY INGESTION. MAY CAUSE HEADACHE, DIZZINESS, INCOORDINATION, NAUSEA, VOMITING, DIARRHEA AND GENERAL WEAKNESS. INGESTION MAY CAUSE RED BLOOD CELL HEMOLYSIS AND POSSIBLE LIVER AND KIDNEY INJURY. PENETRATES THE SKIN READILY. FREQUENT OR WIDESPREAD CONTACT MAY RESULT IN THE ABSORPTION OF POTENTIALLY HARMFUL AMOUNTS. SIGN AND SYMPTOMS OF TOXICITY ARE SIMILAR TO THOSE OF INGESTION. HIGH CONCENTRATIONS ARE IRRITATING TO THE EYES AND RESPIRATORY TRACT. INHALATION OF VAPORS OR MISTS MAY CAUSE HEADACHE, DIZZINESS, NAUSEA, VOMITING AND MALAISE.
IN ANIMAL STUDIES, SEVERAL TYPES OF TUMORS WERE REPORTED AFTER A 2 YEAR CHRONIC INHALATION TEST.
BRIEF SKIN CONTACT WITH UNDILUTED MATERIAL MAY CAUSE SLIGHT REDDENING. MORE PROLONGED AND WIDESPREAD CONTACT, AS WITH CHEMICAL SATURATED CLOTHING, MAY CAUSE MODERATE REDDENING, SWELLING AND POSSIBLE DAMAGE TO THE SKIN. CAUSES MODERATE IRRITATION AND POSSIBLE CORNEAL INJURY. BECAUSE OF IRRITATION AND DEFATTING PROPERTIES, MAY EXACERBATE AN EXISTING DERMATITIS. RESULTS OF MUTAGENICITY TESTS IN ANIMALS HAVE BEEN NEGATIVE. RESULTS OF IN-VITRO MUTAGENICITY TESTS HAVE BEEN INCONCLUSIVE.

1-METHOXY-2-PROPANOL: TOXICITY IS LOW VIA ORAL AND INHALATION ROUTES. NO CASES OF HUMAN TOXICITY ARE KNOWN. A SKIN AND EYE IRRITANT. CENTRAL NERVOUS SYSTEM DEPRESSANT. CAUSES IRRITATION TO NOSE AND THROAT; HEADACHE AND NAUSEA. THE LD50 FOR SKIN ABSORPTION IN RABBITS IS APPROXIMATELY 12 ML/KG. PROLONGED SKIN CONTACT WITH VERY LARGE AMOUNTS MAY CAUSE DROWSINESS. SINGLE DOSE ORAL TOXICITY IS LOW. THE ORAL LD50 FOR RATS IS 6.6 ML/KG. THE ODOR IS OBJECTIONABLE AT 100 PPM; HIGHER LEVELS PRODUCE EYE, NOSE, AND THROAT IRRITATION AND ARE INTOLERABLE AT 1000 PPM. ANESTHETIC EFFECTS ARE SEEN AT OR ABOVE 1000 PPM. REPEATED EXCESSIVE EXPOSURES MAY CAUSE MINOR LUNG, LIVER AND KIDNEY EFFECTS. SIGNS AND SYMPTOMS OF EXCESSIVE EXPOSURE MAY BE ANESTHETIC OR NARCOTIC EFFECTS. BIRTH DEFECTS ARE UNLIKELY. EXPOSURES HAVING NO ADVERSE EFFECTS ON THE MOTHER SHOULD HAVE NO EFFECT ON THE FETUS. RESULTS OF IN VITRO (TEST TUBE) MUTAGENICITY TESTS HAVE BEEN NEGATIVE. IN GENERAL, UNCORROBORATED CASE REPORTS AND IN VITRO STUDIES, SUCH AS AMES TESTS,

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

ARE USEFUL PIECES OF INFORMATION, BUT NOT DEFINITIVE FINDINGS OF HAZARDS. COMMERCIAL 1-METHOXY-2-PROPANOL CONTAINS A SMALL AMOUNT (<3%) OF THE ISOMER, 2-METHOXY-1-PROPANOL. THIS ISOMER IN ANIMAL STUDIES HAS BEEN REPORTED TO CAUSE SERIOUS BIRTH DEFECTS.

GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL: GLYCOL ETHERS INCLUDE MONO- AND DI- ETHERS OF ETHYLENE GLYCOL, DIETHYLENE GLYCOL, AND TRIETHYLENE GLYCOL WHICH ARE REGULATED AS A CHEMICAL CATEGORY UNDER SARA SECTION 313 REGULATIONS. THE HEALTH EFFECTS OF GLYCOL ETHERS VARY WITH THE PARTICULAR GLYCOL ETHER. THESE EFFECTS MAY INCLUDE IRRITATION TO THE SKIN, EYES, RESPIRATORY TRACT, AND MUCOUS MEMBRANES. THEY MAY INCLUDE EFFECTS ON THE REPRODUCTIVE SYSTEM, INCLUDING REDUCTION OF SPERM COUNT OR BIRTH DEFECTS.

ETHOXYLATED ALCOHOL: SOME ETHOXYLATED ALCOHOLS HAVE BEEN KNOWN TO CAUSE EYE AND SKIN IRRITATION. INGESTION MAY CAUSE GASTROINTESTINAL IRRITATION, DIARRHEA, NAUSEA AND VOMITING. ANY KNOWN SPECIFIC EFFECTS ARE LISTED BELOW.

NOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

ISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

CTION 04 - FIRST AID MEASURES

RST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

RST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

ST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

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SECTION 04 - FIRST AID MEASURES (CONT.)

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

SYMPTONS OF POISONING MAY EVEN OCCUR AFTER SEVERAL HOURS; THEREFORE MEDICAL OBSERVATION FOR AT LEAST 48 HOURS AFTER THE ACCIDENT IS RECOMMENDED.

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT (°F): 143.6 (62°C)
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE (°F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON AND SILICA. FORMATION OF FORMALDEHYDE AND VARIOUS HYDROCARBON FRAGMENTS ARE ALSO POSSIBLE.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM:
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. PREVENT SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATORY PROTECTION AND PROPER PROTECTIVE EQUIPMENT. VENTILATE IF IN ENCLOSED AREA. RECOVER AS LIQUID USING HAND OR EXPLOSION PROOF PUMP OR USE SUITABLE ABSORBANT TO COLLECT. CLEAN UP BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVAL OF CONTAMINATED SOILS.

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SECTION 06 - ACCIDENTAL RELEASE MEASURES (CONT.)

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

IF USE CONDITIONS GENERATE VAPOR IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

THER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

ENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

XPOSURE LIMITS: NONE ON PRODUCT

DLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

ECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITE LIQUID, SOLVENT ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.0 - 8.0
SOLUBILITY IN WATER: FULLY MISCIBLE
SPECIFIC GRAVITY: 0.97 TYPICAL
BOILING POINT (°F): 212 TYPICAL
MELTING POINT (°F): NOT AVAILABLE
FREEZING POINT (°F): NOT AVAILABLE
APOR PRESSURE (MM HG): NOT AVAILABLE
APOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING (%): 20-30% WATER

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SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT:

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
KINEMATIC: 11 - 20 S @ 68'F (20'C)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: STRONG OXIDIZING AGENTS

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE OF THE PREPARATIONS DIRECTIVE (88/379/EC).

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

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SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
INCINERATE IN COMPLIANCE WITH REGULATIONS OR BURY IN APPROVED LANDFILL IN COMPLIANCE WITH REGULATIONS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

OT REGULATED: NO
AZARD CLASSIFICATION: NOT REGULATED

HIPPING NAME: COMPOUNDS, LEATHER FINISHING, SOFTENING, SPONGING, OR STUFFING

OT REGULATED BULK ONLY: YES
RQ MET AT: NONE
N/NA NUMBER : NA1993
ACKING GROUP: III
AZARD CLASSIFICATION: COMBUSTIBLE LIQUID
UBSIDIARY RISK 1: NONE
UBSIDIARY RISK 2: NONE
OISON INHALATION: NO HAZARD ZONE: NONE
ARINE POLLUTANT: NO
OT LABEL(S) REQUIRED: NONE
ORTH AMERICAN EMERGENCY RESPONSE GUIDE NO.: 128

HIPPING NAME: COMBUSTIBLE LIQUID, N.O.S. (1-METHOXY-2-PROPANOL)

ANADIAN TRANSPORT REGULATION: NOT DETERMINED

NTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

NTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

ECTION 15 - REGULATORY INFORMATION

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SECTION 15 - REGULATORY INFORMATION (CONT.)

SCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

ARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y
ARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

ARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

LEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

LEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
OC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 20-30% WATER

ERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL	GLYETHCMPD	6-8	NO RQ

RA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

DA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

SDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

EPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

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ECTION 15 - REGULATORY INFORMATION (CONT.)

HMIS: NOT EVALUATED

ECTION 16 - OTHER INFORMATION

THER PRECAUTIONS:

KEEP AWAY FROM IGNITION SOURCES. PROTECT AGAINST ELECTROSTATIC CHARGES. PREVENT FORMATION OF AEROSOLS.

TATE REGULATORY INFORMATION:
ENNSYLVANIA: AS NOTED PER SECTION 2.

ASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

ABEL INFORMATION:
ABEL HAZARDS:

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CAUTION!
REPEATED EXPOSURES MAY RESULT IN LIVER OR KIDNEY DAMAGE.

CAUTION!
COMBUSTIBLE LIQUID AND VAPOR

ABEL PRECAUTIONS:

DO NOT BREATHE VAPORS. USE WITH ADEQUATE VENTILATION. DO NOT GET IN EYES OR ON CLOTHING. WASH FROM SKIN AND EYES IMMEDIATELY. KEEP FROM HEAT AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK PROMPT MEDICAL ATTENTION IF REDNESS OR IRRITATION OCCURS.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE.

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SECTION 16 - OTHER INFORMATION (CONT.)

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION CONTINUES.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ASSISTANCE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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WOLVERINE WORLD WIDE INC
ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: MELIO WF-5230 LIQUID
PRODUCT CODE: 296130
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: POLYETHER MODIFIED POLYSILOXANE
FORMULA: MIXUTURE
PRIMARY PRODUCT USE: LEATHER FINISHING

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
MELIO WF-5230 LIQUID	PROPRIETARY	25	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:
SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:
NONE: X
OSHA:

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4000 MONROE ROAD
CHARLOTTE, N.C. 28205

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): 230 CC
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

MELIO WF-5230 LIQUID
296130 VERSION: 01 REVISED DATE: 05/18/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: CLEAR COLORLESS LIQUID, SLIGHT ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 7.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.0 TYPICAL
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLEE
LOSS ON DRYING(%): 70-80% WATER
VOC(EPA METHOD 24/24A): 2.8%
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NON-IRRITATING
EYE IRRITATION-RABBIT: NON-IRRITATING

OTHER TOXICOLOGICAL VALUES:
THE PRODUCT WAS CLASSIFIED ON THE BASIS OF THE CALCULATION PROCEDURE OF THE PREPARATIONS DIRECTIVE (88/379/EC).

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

SECTION 15 - REGULATORY INFORMATION (CONT.)

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): 2.8%
LOSS ON DRYING (%): 70-80% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

CLARIANT CORPORATION
4000 MONROE ROAD
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MELIO WF-5230 LIQUID
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SECTION 16 - OTHER INFORMATION (CONT.)

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:
NONE

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
INGESTION: SEEK PROMPT MEDICAL ATTENTION
INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA,

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SECTION 16 - OTHER INFORMATION (CONT.)

THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF; IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

19-240634

First Source Worldwide, LLC
604 Chatham Court
Neenah, WI 54956

Ph. (920) 915-2546 Fax (920) 722-2546

MATERIAL SAFTEY DATA SHEET

I. Product Identification

Trade Name: Metalan Black WA
Chemical Name: Acid Black 52
Chemical Family: Azine
Color Index #: Acid Black 52
Last Revision Date: 10/01/01
Preparer: HMS Dept – Phone: (920) 915-2546

II. Hazardous Components

Component	Percent	T.L.V.
N/A		

III. Physical Data

Boiling Point:	N/A	Solub. In Water:	Soluble
Vapor Pressure:	N/A	Odor:	None
Vapor Density:	N/A	Appearance:	Black Powder
Volatility:	N/A	Specific Grav:	N/A
Freeze Point:	N/A	Evap. Rate:	N/A
Melting Point:	N/A	pH of Product:	N/A

IV. Fire and Explosion Data

Flash Point: N/A
Flammable Limits: N/A
In Case of Fire: Dry chemical, CO2, water spray or regular foam. Move containers from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out.
Fire-Fighting Procedures: Use self-contained breathing apparatus.
Fire and Explosion Hazards: In case of fire or explosion, keep unnecessary people away. Isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering.

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V. Reactivity Data

Stability:	**Stable**
Conditions to avoid:	**None known**
Incompatibility:	**None known**
Hazardous Decomposition Products:	**Burning will produce oxides of carbon and nitrogen.**
Hazardous Polymerization:	**Will not occur under normal conditions.**
Conditions to avoid:	**None known.**

VI. Health Hazard Data

Threshold Limit Value:	**Not established. Contact may cause eye and skin irritation. Dust may irritate the respiratory tract.**
Hazard Warnings:	**D.O.T. non-regulated substance: This product in its present state poses no threat to human health or the environment.**

VII. Emergency and First Aid Procedures

PROCEDURES:

Eyes:	**Flush eyes with water for at least 15 minutes.**
Skin:	**Wash thoroughly with soap and water. If irritation occurs get medical attention. If clothing is contaminated, remove and wash before reuse.**
Inhalation:	**Remove to fresh air. Get medical attention.**
Ingestion:	**If conscious, give plenty of water to drink. Get medical attention. If unconscious, do not give anything to drink. Get immediate medical attention.**

VIII. Special Protection Information

Respiratory:	**Niosh approved respirator whenever exposure to dust or vapor exceeds the TLV of any items identified under the hazardous component section.**
Skin:	**Rubber gloves, apron, coverall to minimize skin contact.**
Eyes:	**Goggles.**
Ventilation:	**Local exhaust.**
Other Protection:	**Deluge safety shower and eye wash station should be located near work area.**

IX. Spill or Leak Procedures:

Steps to be Taken:	**Do not touch or walk through spilled material. Stop leak if you can do it without risk. Take up with sand or other non-combustible absorbent materials and place into containers for later disposal. Scrub spill area with detergent. Flush with copious amount of water.**
Waste Disposal Method:	**Waste material may be dumped or incinerated under conditions which meet all federal, state and local environmental control regulations. The discarded product is not a hazardous waste under RCRA 40 CFR 261.**
Container Reuse Method:	**Containers should not be reused without professional cleaning and reconditioning.**

X. Precaution Measures

29 CFR 1910. 1200 and state right to know laws may designate this product as a nuisance dust. Please refer to section XII of Material Safety Data Sheet for handling instructions.

XI. Transportation Information

DOT Hazard Class:	**Non-hazardous**
Proper Shipping Name:	**Non-hazardous material**
DOT Identification #:	
Commodity Class:	**Dye Compound, N.O.I.**
R / Q:	**N/A**
R / Q Lbs:	

XII. Regulatory Information

S.A.R.A.: **None**

T.S.C.A.: **In compliance**

O.S.H.A. Hazard Classification:

Acute: NO **Chronic: NO** **Flammable: NO**

Reactive: NO **Oxidizer: NO**

	Health	Flammability	Reactivity	Personal Protection
H.M.I.S. Classification:	1	1	0	H
N.F.P.A. Codes	1	1	0	N

XIII. State Right to Know Laws

HAZARDOUS MATERIALS

Ingredients	State Information

NONHAZARDOUS MATERIALS

Ingredients	State Information
Acid Black 52	NJ, PA, MA

XIV. Other Information

All information and data appearing on this M.S.D.S. are believed to be reliable and accurate. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by First Source Worldwide, LLC. User assumes all risk and responsibility.

19-240 700

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm Black 2R p

Substance key: 000000166271
Version : 1 - / USA

Revision Date: 05/17/2005
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm Black 2R p**
Material number:	198906
Chemical family:	azo dyestuff anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

None under 29 CFR 1910.1200
None under Title III of SARA

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Any available toxicological data is shown in Section 11. No other information was found in the public literature for any effects of exposure and no health evaluation is thus possible. Therefore, handle with care and avoid unnecessary exposures.

Known effects on other illnesses:	No known effects on other illnesses for this product.
Listed carcinogen:	IARC: No NTP: No OSHA: No Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Remove contaminated clothing without delay. Immediately wash the skin with soap and water for at least 15 minutes under a safety shower. If redness or skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:
Avoid breathing dust and contact with skin, eyes,and clothing.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Respiratory protection:	Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.
Hand protection:	Butyl Rubber, PVC Or Neoprene.
Eye protection:	Splash-proof or dust-resistant goggles
Other protective equipment:	None known
Advice on system design:	Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	powder
Color:	black
Odor:	none
pH:	7.5 - 9.5 (20 °C, 10 g/l)
Solubility in water:	app. 40 g/l (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) The product has not been tested. The information is derived from the properties of the individual components.
Skin irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Eye irritation: Non-irritating
This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation: 30 - 40 % (28 d, TOC)
Method: evaluated

Daphnia toxicity: EC50 > 100 mg/l (48 h, daphnia magna (water flea))
Method: evaluated

Bacteria toxicity: IC50 > 100 mg/l (activated sludge)
Method: evaluated

Section 13 - Disposal considerations

Waste disposal information:
Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities should be incinerated or may be landfilled in approved systems.

Composition:
C ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	no
Delayed/chronic:	no

SARA 313 information:

This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not applicable

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN.

Maintain good housekeeping for dust control. Good work practices dictate that care be taken to avoid skin and eye contact and ingestion. Washing after handling is advised.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19.240 585

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm Black BFN p

Substance key: KS8580
Version : 1 - 1 / USA

Revision Date: 11/29/2004
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm Black BFN p**
Material number:	101759
Synonyms:	CARTA BLACK BFN
Chemical family:	azo dyestuff anionic mixture
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Copper (As An Integral Part Of The Dye or Pigment Molecule)	7440-50-8	< 0.1 %
Copper Compound		< 2 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Copper (as an intergral part of the dye or pigment molecule)
Copper: Overexposure to copper salts can cause irritation to intact skin. Can also cause irritation to the eyes. Inhalation of copper dusts may cause irritation to the upper respiratory tract. Exposure to copper fumes and dust may also cause a metallic taste in the mouth.

Known effects on other illnesses:	No known effects on other illnesses for this product.
Listed carcinogen:	IARC: No NTP: No

OSHA: No
Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Self ignition: 572 °F
Method: Sandoz Ignition test of deposited dust.

Hazardous combustion products:
carbon oxides
nitrogen oxides
sulfur oxides
copper oxides

Extinguishing media: all

Special fire fighting procedure:
None known

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

COPPER DUSTS AND MISTS, AS /CU/	7440-50-8	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
COPPER FUME, AS /CU/	7440-50-8	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.1 mg/m3
COPPER, DUSTS AND MISTS, AS CU	7440-50-8	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		1 mg/m3
COPPER, FUME	7440-50-8	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.2 mg/m3

Respiratory protection: None required under normal use. Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Splash-proof or dust-resistant goggles

Other protective equipment: None known

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: powder

Color: dark blue

Odor: none

pH: 6 - 7 (20 °C, 10 g/l)

Solubility in water: 30 g/l (90 °C)

Melting point : not applicable

Boiling point : not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	180 °C Method: isoperibolic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents will destroy color and may initiate combustion.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) Method: OECD 401 * 1987 acute tox.oral
Skin irritation:	Non-irritating (rabbit) Method: OECD 404 * 1987 dermal irritation / corrosion
Eye irritation:	Non-irritating (rabbit) Method: OECD 405 * 1987 eye irritation / corrosion

Section 12 - Ecological information

Product information:

Biodegradation:	app. 60 % (14 d, TOC) Method: OECD 302B * 1981 Mod. Zahn-Wellens (inherent)
Biodegradation:	1.6 % Method: BOD5*100/COD
Fish toxicity:	LC0 290 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: OECD 203 * 1984 acute tox.
	LC50 790 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: OECD 203 * 1984 acute tox.
	LC100 > 1,000 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: OECD 203 * 1984 acute tox.
Bacteria toxicity:	IC50 > 100 mg/l (3 h, activated sludge) Method: OECD 209 * 1984 activated sludge.Respir.inhib.
	IC50 > 100 mg/l (activated sludge) Method: ETAD method 103
Chemical oxygen demand (COD):	515 mg/g Method: standard methods APHA 508
Biological oxygen demand (BOD):	9 mg/g Method: standard methods APHA 507 5 d

Section 13 - Disposal considerations

Waste disposal information:

Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled in approved systems.

Composition:

C ,
Cu (< 0.1 %) ,
H ,
N ,
Na ,
O ,
S ,

RCRA hazardous waste:

No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Copper (As An Integral Part Of The Dye or Pigment Molecule)	7440-50-8	< 0.1 %
Copper Compound		< 2 %

Clean Water Act:

Contains priority pollutant copper at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
COPPER	7440-50-8	< 0.1 %	5,000 LBS
COPPER COMPOUNDS	7440-50-8	< 2 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN.

Maintain good housekeeping for dust control. Good work practices dictate that care be taken to avoid skin and eye contact and ingestion. Washing after handling is advised.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240 619

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm Blue DBN p

Substance key: KS8599
Version : 1 - 2 / USA

Revision Date: 11/29/2004
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm Blue DBN p**
Material number:	101766
Synonyms:	C.I. Acid Blue 312
Chemical family:	azo dyestuff anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Sodium carbonate	497-19-8	1 - 5 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	no
Skin contact:	yes
Eye contact:	yes
Ingestion:	yes
Skin absorption:	no

Health effects of exposure:

Sodium Carbonate (497-19-8)
Sodium Carbonate: Inhalation of dusts may irritate nose, throat and lungs. Although low in toxicity, ingestion can be harmful. May irritate mouth, esophagus, stomach, etc. May cause irritation to skin from prolonged contact. May irritate or burn eyes.

Known effects on other illnesses:	No known effects on other illnesses for this product.
Listed carcinogen:	IARC: No NTP: No OSHA: No Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Remove contaminated clothing without delay. Immediately wash the skin with soap and water for at least 15 minutes under a safety shower. If redness or skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
None known

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Respiratory protection:	Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.
Hand protection:	Butyl Rubber, PVC Or Neoprene.
Eye protection:	Splash-proof or dust-resistant goggles
Other protective equipment:	Clothing suitable to prevent skin contact.
Advice on system design:	Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	powder
Color:	dark blue
Odor:	none
pH:	8 (20 °C, 10 g/l)
Solubility in water:	app. 60 g/l (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: internal test

Acute dermal toxicity:	LD50 > 5,000 mg/kg (rat) Method: internal test
Skin irritation:	Non-irritating (rabbit) Method: internal test
Eye irritation:	Non-irritating (rabbit) Method: OECD 405 * 1981 eye irritation / corrosion

Section 12 - Ecological information

Product information:

Biodegradation:	app. 45 % (14 d, TOC) Method: HOECHST method
Fish toxicity:	LC0 20 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
	LC50 42 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
	LC100 100 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: OECD 209 * 1984 activated sludge.Respir.inhib.

Section 13 - Disposal considerations

Waste disposal information:

Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled in approved systems.

Composition:

C ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:

No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:
This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act:
Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not Available

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:
Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

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19.240151

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm Brown DR p

Substance key: KS9060
Version : 1 - 2 / USA

Revision Date: 11/29/2004
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm Brown DR p**
Material number:	101781
Synonyms:	Airedale Brown P p
Chemical family:	azo dyestuff/iron complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Iron Salts, Soluble	74204-29-8	2 - 3 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

C.I. Acid Brown 360 (74204-29-8)
Iron salts, soluble: may irritate the respiratory tract. Some compounds pose toxicity risks if taken internally.

Known effects on other illnesses:	No known effects on other illnesses for this product.
Listed carcinogen:	IARC: No NTP: No OSHA: No Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
iron(III) oxide
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Respiratory protection:	None required under normal use. Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for particulate matter.
Hand protection:	Butyl Rubber, PVC Or Neoprene.
Eye protection:	Splash-proof or dust-resistant goggles
Other protective equipment:	None known
Advice on system design:	Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	powder
Color:	brown
Odor:	none
pH:	6.5 - 8 (20 °C, 10 g/l)
Solubility in water:	50 g/l (20 °C) soluble
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	120 °C Method: SANDOZ Radex isoperibolic decomposition test Heating rate: 0 K/min
Thermal decomposition:	120 °C (Heating rate:0.75 K/min) Method: SANDOZ Radex dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: SANDOZ internal test
Acute dermal toxicity:	LD50 > 5,000 mg/kg (rat) Method: SANDOZ internal test
Skin irritation:	Non-irritating (rabbit) Method: internal test
Eye irritation:	Non-irritating (rabbit) Method: OECD 405 * 1981 eye irritation / corrosion

Section 12 - Ecological information

Product information:

Biodegradation:	app. 65 % (14 d, TOC) Method: HOECHST method
Fish toxicity:	LC0 4 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
	LC50 10 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
	LC100 20 mg/l (48 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: mod. routine bioassay method of 1.11.74
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: OECD 209 * 1984 activated sludge.Respir.inhib.

Section 13 - Disposal considerations

Waste disposal information:

Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled in approved systems.

Composition:

C ,
Fe (1.6 %) ,
H ,
N ,
Na ,
O ,
S ,

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT Regulation:

Proper shipping name:	Environmentally hazardous substances, solid, n.o.s.
Hazard class:	9
Packing group:	III
UN/NA-number:	UN 3077
Primary hazard class:	9
Technical Name:	Azo Dye
Emergency Response Guide:	171

IATA

Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Class:	9
Packing group:	III
UN/ID number:	UN 3077
Primary risk:	9
Hazard inducer(s):	Azo Dye

IMDG

Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Class:	9
Packing group:	III
UN no.:	UN 3077
Primary risk:	9
Hazard inducer(s):	Azo Dye
EmS:	F-A S-E

Further information:
Not regulated for surface transportation in non-bulk containers under 119 gallons.

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:
This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act:
Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not Available

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:
Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN. IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove subject to fresh air. Seek medical assistance.

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Clariant

MATERIAL SAFETY DATA SHEET

Melioderm Dark Brown VP p

Substance key: 000000056311
Version : 1 - 3 / USA

Revision Date: 10/15/2007
Date of printing :10/16/2007

Section 01 - Product Information

Identification of the company:

Clariant Corporation
4000 Monroe Road
Charlotte, NC, 28205
Telephone No.: +1 704-331-7000

Information of the substance/preparation:
Product Safety 1-704-331-7710

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: **Melioderm Dark Brown VP p**
Material number: 162410
Chemical family: azo dyestuff
anionic
Primary product use: leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

None under 29 CFR 1910.1200
None under Title III of SARA

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:
Any available toxicological data is shown in Section 11. No other information was found in the public literature for any effects of exposure and no health evaluation is thus possible. Therefore, handle with care and avoid unnecessary exposures.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Respiratory protection:	None required under normal use. Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for particulate matter.
Hand protection:	Butyl Rubber, PVC Or Neoprene.
Eye protection:	Splash-proof or dust-resistant goggles
Other protective equipment:	Clothing suitable to prevent skin contact.
Advice on system design:	Use adequate exhaust ventilation and/or dust collection to keep dust levels below exposure limits.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	Powder
Color:	brown
Odor:	none
pH:	7 - 9 (10 g/l)
Solubility in water:	40 g/l (60 °C)
Melting point :	> 482 °F
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	Stable at ambient temperature.
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: OECD 401
Skin irritation:	Non-irritating (rabbit) Method: OECD 404
Eye irritation:	Non-irritating (rabbit) Method: OECD 405

Section 12 - Ecological information

Product information:

Biodegradation:	1.4 % Not readily degradable Method: BOD5*100/COD
Fish toxicity:	LC50 10 - 100 mg/l (48 h, rainbow trout)
Bacteria toxicity:	IC50 > 1,000 mg/l
Chemical oxygen demand (COD):	715 mg/g
Biological oxygen demand (BOD):	10 mg/g 5 d

Section 13 - Disposal considerations

Waste disposal information:
Recommended disposal is by incineration in approved facilities.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
One or more components of this product are not listed on the TSCA Inventory. The components, however, are covered by Low Volume Exemptions.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	no
Delayed/chronic:	no

SARA 313 information:
This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act:
Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.
A low volume exemption has been granted by the EPA for the manufacture of this product. Its manufacture is subject to the restrictions of 40 CFR 723.50.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN. A Low Volume Exemption has been granted by the EPA for the manufacture of this product.

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear proper protective equipment. Keep container closed when not in use. Maintain good housekeeping for dust control.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

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19-240 687

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm Green X cdg

Substance key: CLA153
Version : 2 - / USA

Revision Date: 03/15/2007
Date of printing :06/11/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm Green X cdg**
Material number:	133240
Synonyms:	Product has no synonyms
Chemical family:	nickel phthalocyanine dyestuff reactive
Primary product use:	Colouring agents

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Nickel, insoluble compounds, as Ni	7440-02-0	< 2 %
Nickel Compounds		45 - 55 %
Sodium hydroxide	1310-73-2	0.5 - 2 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	yes
Skin absorption:	no

Health effects of exposure:

Certain dyes in the Colour Index Class of fiber reactive dyes have been shown to cause severe pulmonary sensitization in certain sensitive individuals. Initial sensitization is believed to occur upon inhalation of dust containing the fiber reactive dyes. Subsequent exposure to these dyes has resulted in increased sensitivity in these individuals. The effects of this increased sensitivity progress from runny nose, cough, sneezing, dyspnea, and conjunctivitis to asthmatic symptoms. This progression is potentially deadly and can lead to shock and cardiovascular collapse. Other symptoms can include dermatitis, or skin irritation. It is possible that subsequent dermal exposure of such sensitized individuals may lead to these

same effects. Although there have been no reports of such sensitization to this dye, exposure to dusts and mists containing this dye, and skin contact with the dye should be avoided by the use of proper personal protective equipment.

Nickel and Specific Compounds of Nickel (7440-02-0)
Nickel and Specific Compounds of Nickel: Effects listed for nickel and specific compounds of nickel apply to nickel and the specific compounds listed in the IARC 7th annual report on carcinogens, 1994. Certain chemical conditions not typically encountered with use of this product may result in formation of nickel or the specific compounds listed in the IARC report. Nickel and specific compounds of nickel have been reported to cause dermatitis in sensitive individuals. Ingestion of soluble salts causes nausea, vomiting and diarrhea. Dust may irritate eyes, mucous membranes and skin. Nickel is not an acute systemic poison but chronic exposure to nickel metal fume or oxide dusts may cause cancer. Exposure to elemental nickel and nickel salts can cause cancer of the lung and nasal passages. Nickel is an experimental carcinogen, equivocal tumorigenic agent, and has been shown to cause neoplastic effects. Nickel is a positive animal carcinogen (IARC), human carcinogen (NTP) and animal teratogen. Positive tests for mutagenicity have been reported for nickel and some specific compounds of nickel. In general, uncorroborated case reports and in-vitro studies, such as Ames tests, are useful pieces of information but not definitive findings of hazards.

Sodium Hydroxide (1310-73-2)
Sodium Hydroxide: Acute eye contact causes severe burns. Small quantities can result in permanent damage and/or loss of vision. Acute skin contact may result in corrosive action causing burns and frequently deep ulceration with subsequent scarring. Prolonged contact destroys tissue. Mist from solutions can cause irritant dermatitis. Acute ingestion can cause very serious damage to the mouth, esophagus, stomach and other tissues with which contact is made. Ingestion may be fatal. Acute inhalation of mists can cause damage to the upper respiratory tract and to the lung tissue depending on extent of exposure. Effects can range from mild irritation of mucous membranes to severe pneumonitis to destruction of lung tissues. Chronic effects of long-term, low-level exposures have not been determined. Safe handling on a long-term basis should emphasize the avoidance of all effects from repetitive acute exposures.

Known effects on other illnesses: This material may cause respiratory sensitization or asthma in susceptible individuals.

Listed carcinogen:
OSHA: No
NTP: Yes
IARC: Yes
Other: No

HMIS:

Health: 2 | Flammability: 1 | Reactivity: 0 | Personal protection: C

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within 1 minute is essential to achieve maximum effectiveness. Seek medical attention immediately.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Hazardous combustion products:
In the event of fire the following can be released:
carbon oxides
Nitrogen oxides (NOx)
Nickel oxide
Hydrogen chloride (HCl)
Sulphur oxides

Extinguishing media: compatible with all usual extinguishing media

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:
Handle with due care. Avoid ingestion, inhalation, eye, and skin contact. The reactive dye in this product has not been shown to cause allergic respiratory reactions, however, since certain other reactive dyes have caused allergic reactions, a physician should be called if symptoms such as skin rash, runny nose, difficulty in breathing, dizziness or fainting are experienced. Keep container closed when not in use. For industrial use only.
Avoid dust formation. Keep away from sources of ignition. Lead off electrostatic charges.

Further info on storage conditions:
Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
NICKEL, ELEMENTAL, INHALABLE FRACTION	7440-02-0	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		1.5 mg/m3
SODIUM HYDROXIDE	1310-73-2	US ACGIH Threshold Limit Values Data	Ceiling Limit Value:		2 mg/m3

Respiratory protection: Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: Granules

Color: black

Odor: odourless

pH: 11 - 12 (50 g/l)

Solubility in water: approx. 40 g/l (25 °C)

Density: 0.73 g/cm3 (20 °C)

Melting point : not applicable

Boiling point : not applicable

Section 10 - Stability and reactivity

Thermal decomposition: 210 °C
Method: isoperibolic decomposition test

Chemical stability: Stable.

Hazardous Polymerization: Will not occur.
Conditions to avoid: None known.

Conditions to avoid: Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity: LD50 > 2,000 mg/kg (rat)
Method: test result of a related preparation.

Skin irritation: irritant (rabbit)
Method: 1999/45/EC
This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Eye irritation: irritant (rabbit)
Method: 1999/45/EC
This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Sensitization: non-sensitizing (mouse)
Method: OECD 429

Section 12 - Ecological information

Product information:

Biodegradation: approx. 60 % (14 d, DOC decrease)
Method: test result of a related preparation.

Fish toxicity: LC50 > 100 mg/l (96 h, guppy)
Method: OECD 203

Bacteria toxicity: EC50 > 2,000 mg/l (3 h, activated sludge)
Method: OECD 209

Chemical oxygen demand (COD): 1,060 mg/g
Method: DIN 38409-H41

Remarks:
Product contains organic halogen, may contribute to AOX value

Section 13 - Disposal considerations

Waste disposal information:
Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities should be incinerated or may be landfilled in approved systems.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:
This product contains the chemical or chemicals listed below which are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act of 1986 ("SARA") and the requirements of 40 CFR Part 372:

Component	CAS-no. (Trade secret no.)	Concentration
Nickel, insoluble compounds, as Ni	7440-02-0	< 2 %
Nickel Compounds		45 - 55 %

Clean Water Act:
Contains priority pollutant nickel at concentrations greater than 0.1%.

Volatile organic compounds VOC:
Remarks: Not applicable

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
NICKEL	7440-02-0	< 2 %	100 LBS
NICKEL COMPOUNDS		45 - 55 %	
SODIUM HYDROXIDE	1310-73-2	0.5 - 2 %	1,000 LBS

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:
The Drimarene CDG products are dye preparations which are dust free under the conditions of the Heubach Test. Sensitization of the respiratory tract due to dust inhalation that exists

with some powder reactive dyes should therefore be largely excluded. If feeling unwell due to inhalation of the product, consult a physician.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. MAY CAUSE IRRITATION TO EYES AND SKIN MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

Maintain good housekeeping for dust control. Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Use only with adequate ventilation, and proper protective eyewear, gloves, and clothing. Wash thoroughly after handling. Keep container closed when not in use.

Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Eye contact: flush with water for at least 15 minutes while holding eyelids open. Seek immediate medical attention. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues. Ingestion: seek medical attention immediately.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-240654

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm Red BG p

Substance key: KS7365
Version : 1 - 2 / USA

Revision Date: 02/16/2006
Date of printing :06/08/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name: **Melioderm Red BG p**
Material number: 114438

Synonyms: C.I. Direct Red 239
Chemical family: azo dyestuff
anionic
Primary product use: leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
C.I. Direct Red 239		25 - 35 %
Petroleum Distillates, Heavy Paraffinic		1 - 3 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

C.I. Direct Red 239
May cause sensitization by skin contact.

petroleum distillates, heavy paraffinic
This product has questionable carcinogen with experimental tumorigenic data, IARC cancer review group 3. Acrid smoke and irritating fumes emitted when chemical is heated to decomposition.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen:

IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 1 Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
None known

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Small spills may be flushed to the sewer or swept up. Larger spills should be collected by shovelling into appropriate waste collection containers. Clean-up by flushing with water if desired or removal of contaminated soil. Utilize recommended clothing and equipment.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Respiratory protection:	None required under normal use. Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for particulate matter.
Hand protection:	Butyl Rubber, PVC Or Neoprene.
Eye protection:	Splash-proof or dust-resistant goggles
Other protective equipment:	Clothing suitable to prevent skin contact.
Advice on system design:	Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	powder
Color:	red
Odor:	none
pH:	8 - 9 (20 °C, 2.5 g/l)
Solubility in water:	55 g/l (80 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	260 °C Method: isoperibolic decomposition test Heating rate: 0 K/min
Thermal decomposition:	310 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 2,000 mg/kg (rat)
Skin irritation:	Slightly irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	Slightly irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Sensitization:	sensitizing

Section 12 - Ecological information

Product information:

Fish toxicity:	LC50 > 100 mg/l
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge)

Section 13 - Disposal considerations

Waste disposal information:
Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled in approved systems.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:

This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN. MAY CAUSE RESPIRATORY TRACT IRRITATION Skin contact may cause skin sensitization.

Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

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19-240 668

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Black R p

Substance key: KS7381
Version : 1 - / USA

Revision Date: 02/20/2008
Date of printing :02/20/2008

Section 01 - Product Information

Identification of the company:	Clariant Iberica Produccion, S.A. Gran Via, 16-20 L'Hospitalet de Llobregat (Barcelona), 08902 Telèphone No.: +34 93 479 8200 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name: **Melioderm HF Black R p**
Material number: 101708
Chemical family: azo dyestuff/chromium complex anionic
Primary product use: leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		45 - 55 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen: IARC: NO NTP: NO OSHA: NO
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Store in a cool, dry, dark location. Keep containers closed when not in use. Avoid all contact with skin and eyes. Avoid breathing dust. Wear proper protective equipment. Observe all necessary precautions for handling fine organic powders to control dust. May present a dust explosion hazard. Reference exposure limit: ACGIH TLV for nuisance dust - 10 mg/m3 inhalable particulates 3 mg/m3 respirable particulates.

Further info on storage conditions:

Store in original container. Keep tightly sealed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Values / Remarks
Chromium metal and insol. Salts	7440-47-3	US OSHA Table Z-1 Limits for Air Contaminents [29 CFR 1910.1000]	8-hour Time Weighted Averages	1 mg/m3
Chromium, metal and Cr III compounds	7440-47-3	US ACGIH Threshold Limit Values	Threshold Limit Value_Time Weighted Average	0.5 mg/m3

Respiratory protection: Use NIOSH approved respiratory protection where exposure levels exceed regulatory limits for hazardous components and/or for particulate matter.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: powder

Color: black

Odor: none

pH: 6 - 8 (20 °C, 10 g/l)

Solubility in water: 50 g/l (20 °C)
soluble

Solubility in water:	75 g/l (60 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	190 °C Method: SANDOZ long duration test open cup
Thermal decomposition:	210 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating (rabbit) Method: Estimated value as the result of the calculation method (Directive 1999/45/EC). This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	Non-irritating (rabbit eye) Method: Estimated value as the result of the calculation method (Directive 1999/45/EC). This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Sensitization:	non-sensitizing (Guinea pig) Method: 1999/45/EC

Section 12 - Ecological information

Product information:

Biodegradation:	< 10 % (28 d, DOC) Little or no biodegradation Method: test result of the active component according to OECD 301E
Biodegradation:	12 % (28 d, DOC) Method: test result of the active component according to OECD 302B

Fish toxicity:	LC0 > 2.5 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component according to OECD 203 LC50 11 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component according to OECD 203
Daphnia toxicity:	EC50 617 mg/l (24 h, daphnia magna (water flea)) Method: test result of the active component according to OECD 202
Algae toxicity:	IC50 2.9 - 11.6 mg/l (72 h, Scenedesmus subspicatus 86.81 sag. green algae) Method: test result of the active component.
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: test result of the active component according to OECD 209

Section 13 - Disposal considerations

Waste disposal information:
This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

RCRA hazardous waste:
See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
One or more of the components of this product is not listed on the Toxic Substances Control Act (TSCA) Inventory. The product is thus sold under the restriction that it is only for use in research and development. This product must be used under the supervision of a technically qualified individual capable of understanding its potential hazards.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		45 - 55 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not tested

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 4 %	5,000 LBS
CHROMIUM COMPOUNDS		45 - 55 %	

FDA:

Permitted for Use per Section: NONE

This product is not registered with the FDA.

Section 16 - Other information

Other precautions:

EPA issued a Significant New Use Rule (SNUR) in 40 CFR 721.9575 under Section 5(a)(2) of TSCA applicable to Clariant, as well as customers, restricting the source and use of this material to non-domestic manufacture and non-powder form only. All SNUR substances are subject to TSCA Export Notification provisions.
Warning: This product is to be used for purposes of research and development only. It must be used under the direct supervision of a technically qualified individual. Any other use will subject the user to penalties under the toxic substances control act and the regulations issued thereunder. avoid contact with skin and eyes. Wear proper protective equipment. wash thoroughly after handling.
Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

ORGANIC DUSTS HAVE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. Skin contact may cause skin sensitization. MAY CAUSE IRRITATION IF INHALED OR CONTACT WITH SKIN OR EYES This product is not listed on the TSCA inventory. It is provided only for research and development under

the supervision of an individual who is technically qualified to understand its potential hazards.

Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues. Ingestion: seek medical attention immediately.

NFPA:

Health: 2 Flammability: 1 Reactivity: 0

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19-240 668

Clariant

MATERIAL SAFETY DATA SHEET

Melioderm HF Black R cp

Substance key: KS16203
Version : 1 - 1 / USA

Revision Date: 12/04/2004
Date of printing :07/26/2007

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Melioderm HF Black R cp**
Material number:	135421
Chemical family:	azo dyestuff/chromium complex anionic
Primary product use:	leather dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		60 - 70 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	no
Skin contact:	no
Eye contact:	no
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (as an integral part of the dye or pigment molecule) (7440-47-3)
Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. Any known effects for this product are listed below.

Known effects on other illnesses:	No known effects on other illnesses for this product.
Listed carcinogen:	IARC: No

NTP: No
OSHA: No
Other: No

HMIS:

Health: 1* Flammability: 1 Reactivity: 0 Personal protection: B

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: not applicable

Hazardous combustion products:
carbon oxides
chromium oxides
nitrogen oxides
sulfur oxides

Extinguishing media: all

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Organic dusts have potential to be explosive with static spark or flame initiation. Maintain good housekeeping for control of dust.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:
Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:
Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: None required under normal conditions of use. If risk of inhalation may occur (dust, mist or aerosol), respiratory protective equipment must be selected and used in accordance with OSHA/NIOSH guidelines.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Splash-proof or dust-resistant goggles

Other protective equipment: None known

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	compacted dye
Color:	black
Odor:	none
pH:	6 - 8 (20 °C, 10 g/l)
Solubility in water:	50 g/l (20 °C)
Solubility in water:	75 g/l (60 °C)
Density:	app. 1 g/cm3 (20 °C)
Melting point :	not applicable
Boiling point :	not applicable

Section 10 - Stability and reactivity

Thermal decomposition:	190 °C Method: SANDOZ long duration test open cup
Thermal decomposition:	210 °C Method: dynamic decomposition test
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: 1999/45/EC
Skin irritation:	Non-irritating This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.
Eye irritation:	irritant - risk of serious damage to eyes This product has not been tested as a separate entity. The hazards have been evaluated based on individual ingredients.

Section 12 - Ecological information

Product information:

Biodegradation:	< 10 % (28 d, DOC) Little or no biodegradation Method: test result of the active component according to OECD 301E

Biodegradation:	12 % (28 d, DOC) Method: test result of the active component according to OECD 302B
Fish toxicity:	LC50 11 mg/l (96 h, rainbow trout (salmo gairdneri, oncorhynchus mykiss)) Method: test result of the active component according to OECD 203
Daphnia toxicity:	EC50 617 mg/l (24 h, daphnia magna (water flea)) Method: test result of the active component according to OECD 202
Bacteria toxicity:	IC50 > 100 mg/l (activated sludge) Method: test result of the active component according to OECD 209

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

Composition:

C ,
Cr ,
H ,
N ,
O ,
S ,

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 4 %
Chromium (III) Compound		60 - 70 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 4 %	5,000 LBS
CHROMIUM COMPOUNDS		60 - 70 %	

FDA:

This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:

EPA issued a Significant New Use Rule (SNUR) in 40 CFR 721.9575 under Section 5(a)(2) of TSCA applicable to Clariant, as well as customers, restricting the source and use of this material to non-domestic manufacture and non-powder form only. All SNUR substances are subject to TSCA Export Notification provisions.

Label information:

CAUTION!

MAY CAUSE IRRITATION TO EYES. MAY CAUSE EYE DAMAGE

Avoid contact with product. Wear proper protective equipment. Use with adequate ventilation and/or proper respiratory protection. Wash thoroughly after handling. Keep container closed when not in use.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

Lab Book II

MATERIAL SAFETY DATA SHEETS

EMERGENCY PHONE NUMBERS

IN PLANT
1st: Janice Barnes ext 5709 or 866-2284
2nd: Madeleine Barrette ext 5766 or 361-5944

PHYSICIAN: Dr. Steve Ottenweller 456-9601

PARAMEDICS:
Days: Nurse's office ext 5635
Nights: Rockford Ambulance 173-013

FIRE DEPT: 173-012 451-2911

POLICE:
State: 173-010 866-4411
Rockford: 173-011 866-9557

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N-O

MSDS

2/99

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
NEODRI HO-21

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEODRI HO-21
Common Name: Water resistant finishing oil

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH: 1
FLAMMABILITY: 1
REACTIVITY: 0

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Finishing Oil Mixture	Mixture	100	PEL: 5/mg/m^3 (oil mist) TLV: 5 mg/m^3 (oil mist)

N.E. = Not Established

WWW_104(e)_016923

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: > 200°F
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases. Water may be ineffective but can be used to cool containers exposed to heat or flame.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Store in closed containers away from heat.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	Not Available	**Density :**	7.4 lb/gal
Flash Point :	> 200°F	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	0.888 g/cc	**% Volatiles :** (by Weight)	Not Available
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Negligible	**Viscosity :**	Not Available

Appearance and Odor :
Yellow viscous paste with slight odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
Acids, Oxidizers

Hazardous Decomposition Products :
None known

SECTION 11 - Toxicological Information

ACUTE EFFECTS:
Conclusions are drawn from sources other than direct testing.

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:
Hazard Class: Non Regulated
Shipping Name:
Harmonized Tariff Code: 3403.91.50 00

HODGSON
Process Chemicals Inc., Leather

NEODRI HO-21

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

n/a

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N/A						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
06/09/98	Update form

Prepared by: Sharon Mathis

WWW_104(e)_016927

Clariant

MATERIAL SAFETY DATA SHEET

NEODRI HO328

Substance key: CLT108123-V1
Version : 1 - 1 / USA

Revision Date: 11/17/2004
Date of printing :04/03/2005

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Textile, Leather, and Paper Chemicals Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name: NEODRI HO328
Material number: 170728

Formula: Mixture
Primary product use: Leather Finishing

Chemical family: Mixture Of Primarily Siloxanes And Silicones

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Aminofunctional Siloxane	71750-79-3	10 - 20 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	yes
Skin absorption:	no

Health effects of exposure:

Siloxanes and Silicones, 3-[(2-aminoethyl)amino]propyl Me, di-Me (71750-79-3)
Eye contact causes irritation. Irritation may be serious with redness, swelling and corneal injury lasting several days to a week. A single short exposure (less than 24 hours) to the skin causes irritation. Prolonged contact irritates seriously, may burn mildly. Mist may irritate nose, throat and lungs depending on concentration and duration of exposure. Aerosol mist is highly toxic by inhalation. Overexposure to mist may cause death. Ingestion of large amounts may cause digestive discomfort.

Known effects on other illnesses: No known effects on other illnesses for this product.
Listed carcinogen: IARC: No
NTP: No

OSHA: No
Other: No

HMIS:

Health: 2 Flammability: 1 Reactivity: 0 Personal protection: D

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Remove contaminated clothing without delay. Immediately wash the skin with soap and water for at least 15 minutes under a safety shower. If redness or skin irritation occurs, seek medical attention.

After contact with eyes:
Immediately flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within 1 minute is essential to achieve maximum effectiveness. Seek medical attention immediately.

After ingestion:
If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: > 212 °F

Lower explosion limit: not determined

Upper explosion limit: not determined

Ignition temperature: not determined

Hazardous combustion products:
Thermal decomposition may produce oxides of carbon and nitrogen. the residue will contain oxides of silica.

Extinguishing media:
water
Alcohol resistant foam
carbon dioxide
Dry Chemical

Special fire fighting procedure:
Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

Unusual fire and explosion hazards: None known.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Contain spill. All spills should be collected as liquid or absorbed on a suitable absorbant. Clean up should be accomplished by removal of contaminated soil or scrubbed with soap and water and cleaning wastes removed with absorbant materials. Wear proper protective equipment.

Section 07 - Handling and storage

Advice on safe handling:

Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection

Respiratory protection:	Use of repiratory protection generally is not required; however, if use conditions (e.g. elevated temperatures) generate vapors, aerosols, or fumes, use a NIOSH-approved organic vapor respirator with dust, mist, and fume filters to reduce potential for inhalation exposure. where exposure necessitates a higher level of protection, use a NIOSH-approved, positive pressure, pressure demand, air-supplied respirator.
Hand protection:	Butyl Rubber Or Neoprene.
Eye protection:	Chemical splash goggles.
Other protective equipment:	Clothing suitable to prevent skin contact.
Advice on system design:	Good general ventilation should be provided to keep vapor concentrations below the recommended exposure limit.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	Liquid
Color:	Colorless to light yellow
Odor:	Slight amine odor.
Solubility in water:	Negligible
Melting point :	not determined
Freezing point :	not determined
Boiling point :	> 212 °F
Vapor pressure:	< 8 Torr
Relative vapor density:	> 1

Section 10 - Stability and reactivity

Chemical stability: Stable.

Hazardous Polymerization: Will not occur.
Conditions to avoid: None known.

Conditions to avoid: Strong oxidizing agents.

Section 11 - Toxicological information

Product information:

Acute oral toxicity: LD50 > 2,000 mg/kg (rat)
Data relate to main components

Skin irritation: Irritating (rabbit)
Data relate to main components

Eye irritation: Irritating (rabbit)
Data relate to main components

Other relevant toxicity information:
The product can be toxic by inhalation in aerosol form. Avoid completely inhalation of spray mist.

Section 12 - Ecological information

Remarks:
No data available.

Section 13 - Disposal considerations

Waste disposal information:
Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities should be incinerated or may be landfilled in approved systems.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT not restricted

IATA not restricted

IMDG not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:
This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act:
This product is an oil in the context of the USA Clean Water Act (CWA). Spills to USA surface waters, or to watercourse or sewer waters that cause a visible sheen must be reported to the National Response Center.

Volatile organic compounds VOC:
Remarks: Not Available

FDA:
This product has not been evaluated for FDA regulatory requirements.

Section 16 - Other information

Other precautions:
Traces of Formaldehyde and other thermal decomposition products may form at temperatures above 150 deg. C in the presence of air. Provide adequate ventilation when handling at elevated temperatures.

Label information:

WARNING!

May cause severe eye irritation with the possibility of eye damage. MAY CAUSE SKIN IRRITATION May be harmful if inhaled in mist or aerosol forms. MAY CAUSE GASTROINTESTINAL DISTURBANCES IF INGESTED.

Avoid breathing fumes, vapors, mists or spray. Avoid contact with skin and eyes. Use with adequate ventilation and/or respiratory protection. Wash thoroughly after handling. Keep container closed when not in use.

Eye contact: flush with water for at least 15 minutes while holding eyelids open. Seek immediate medical attention. Skin contact: wash thoroughly with soap and water. Seek medical attention if irritation continues. Ingestion: do not induce vomiting. Seek immediate medical assistance. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

19-120636 WWW 1652

Schill+Seilacher

Material Safety Data Sheet
According to 91/155 EC

Printing date 22.12.94 Reviewed on 30.03.94

1 Identification of substance

· **Product details**

Trade name NEOPRISTOL SW

· **Article number:** 140900

· **Manufacturer/Supplier:**
Schill & Seilacher GmbH & Co
Schönaicherstraße 205
D-71032 Böblingen
Tel.: 07031/282-0
Fax: 07031/282-100

· **Informing department:** Product safety department.
Emergency information:
During normal opening times: environment protection department
at other times: factory fire brigade

2 Composition/Data on components:

· **Chemical characterization**
· **Description:** Alkylphosphate and neutral oils

· **Dangerous components:**

CAS NO.	Designation	%	Index	R-phrases
Void				

· **Additional information**
The product does not contain any carcinogenic or mutagenic substances

3 Hazards identification

· **Hazard designation:** void
· **Information pertaining to particular dangers for man and environment**
void
· **Classification system**
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

4 First aid measures

· **General information** No special measures required.
· **After inhalation** Supply fresh air; consult doctor in case of symptoms.
· **After skin contact** The product is not skin irritating.
· **After eye contact**
Rinse opened eye for several minutes under running water.
· **After swallowing** In case of persistent symptoms consult doctor.

5 Fire fighting measures

· **Suitable extinguishing agents**
Use fire fighting measures that suit the environment.
· **Protective equipment:** No special measures required.

Material Safety Data Sheet
According to 91/155 EC

Printing date 22.12.94 Reviewed on 30.03.94

Trade name NEOPRISTOL SW

6 Accidental release measures

· **Person related safety precautions:** Not required.
· **Measures for environmental protection:** No special measures required.
Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **Additional information:** No dangerous materials are released.

7 Handling and storage

· **Handling**
· **Information for safe handling:** No special measures required.
· **Information about protection against explosions and fires:**
No special measures required.

· **Storage**
Requirements to be met by storerooms and containers:
No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** None.

8 Exposure controls and personal protection

· **Additional information about design of technical systems:**
No further data; see item 7.

· **Components with critical values that require monitoring at the workplace:**

CAS No.	Designation of material	%	Type	Value	Unit

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:**
The lists that were valid during the compilation were used as basis.

· **Personal protective equipment**
· **General protective and hygienic measures**
The usual precautionary measures should be adhered to in handling the chemicals.
· **Breathing equipment:** Not required.
· **Protection of hands:** Not required.
· **Eye protection:** Safety glasses recommended during refilling.

9 Physical and chemical properties:

· **Form:** Pasty
· **Colour:** Light yellow
· **Smell:** Weak, characteristic

	Value/Range	Unit	Method
· Change in condition			
· Melting point/Melting range:	Not determined		
· Boiling point/Boiling range:	Not determined		
· Flash point:	Not applicable		
· Self-inflammability:	Product is not selfigniting.		
· Danger of explosion:	Product is not explosive.		
· Density at 20 ° C	1.01 g/cm3		
· Solubility in / Miscibility with Water:	Soluble		

(Contd. on page 3)

Material Safety Data Sheet
According to 91/155 EC

Printing date 22.12.94 Reviewed on 30.03.94

Trade name NEOPRISTOL SW

(Contd. of page 2)

· pH-value: (100 g/l) at 20 ° C 5.0-6.0

10 Stability and reactivity

· **Conditions to be avoided:**
No decomposition if used according to specifications.
· **Dangerous reactions** No dangerous reactions known
· **Dangerous products of decomposition:** None

11 Toxicological information

· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritant effect.
· **Sensitization:** No sensitizing effect known.
· **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information:

· **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water.

13 Disposal considerations

· **Product:**
· **Recommendation**
Must be specially treated under adherence to official regulations.

· **Uncleaned packagings:**
· **Recommendation:**
Disposal must be made according to official regulations.
· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

14 Transport information

· **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**
· **ADR/RID-GGVS/E Class:** -

· **Maritime transport IMDG/GGVSea:**
· **IMDG/GGVSea Class:** -

· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** -

15 Regulatory information

· **Designation according to EC guidelines:**
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.
The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).
Observe the normal safety regulations when handling chemicals

Material Safety Data Sheet
According to 91/155 EC

Printing date 22.12.94 Reviewed on 30.03.94

Trade name NEOPHISTOL SW

16 **Other information:**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing data specification sheet:
Environment protection department.
Contact: Dr. Kazenwadel, Fr. Schuler

SW - 12/94

MATERIAL SAFETY DATA SHEET

Finish Dept

Clariant

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

NEOSAN 2000 BEIGE
697183 VERSION: 01 REVISED DATE: 01/18/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
TANNING DIV/ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 BEIGE
PRODUCT CODE: 697183
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: IRON OXIDE PIGMENT IN MAINLY AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRIDECYL-.OMEGA.-HYDROXY-	9043-30-5	1-2.5	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRTIDECYL-.OMEGA.-HYDROXY-: ETHOXYLATED ALCOHOLS MAY CAUSE EYE AND SKIN IRRITATION.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN AND SULFUR.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: BEIGE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.38 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 43-54% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

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SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

BIOLOGICAL ELIMINATION:

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT AVAILABLE
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION (CONT.)

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 43-54% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

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SECTION 16 - OTHER INFORMATION (CONT.)

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

ATTENTION
UPON EVALUATION, IT HAS BEEN DETERMINED THAT THIS PRODUCT IS NOT SUBJECT TO THE LABELING REQUIREMENTS OF OSHA REGULATION 29 CFR 1910.1200.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

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SECTION 16 - OTHER INFORMATION (CONT.)

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

Finish Dept.

Clariant

CLARIANT CORPORATION
4000 MONROE ROAD
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NEOSAN 2000 BLACK
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WOLVERINE WORLD WIDE INC
TANNING DIV/ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 BLACK
PRODUCT CODE: 697184
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: CARBON BLACK IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
CARBON BLACK	1333-86-4	>1	3.5 MG/M3 OSHA ACGIH
POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRIDECYL-.OMEGA.-HYDROXY-	9043-30-5	1-2.5	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

CARBON BLACK: THERE ARE NO WELL DEMONSTRATED HEALTH EFFECTS FROM EXPOSURE. ANY ADVERSE PROPERTIES ARE MOST LIKELY DUE TO ABSORBED IMPURITIES. EYE CONTACT MAY PRODUCE CONJUNCTIVITIS AND CORNEAL HYPOPLASIA. SKIN CONTACT CAN PRODUCE ECZEMA. INHALATION MAY RESULT IN BRONCHITIS. ANY REPORTED CARCINOGENIC EFFECTS ARE MOST LIKELY DUE TO THE PRESENCE OF TRACES OF POLYNUCLEAR AROMATIC COMPOUNDS (PNA) WHICH ARE STRONGLY ADSORBED ON THE CARBON BLACK PARTICLES. EVIDENCE INDICATES THAT SUCH ADSORPTION RENDERS THEM BIOLOGICALLY INACTIVE. SOME STUDIES HAVE

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN AND SULFUR. OTHER DECOMPOSITON PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:
WATER: X
ALCOHOL FOAM:
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
WEARING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT, CONTAIN SPILL. USE ABSORBENT MATERIAL TO SOAK UP LIQUID. PLACE IN PROPER WASTE DISPOSAL CONTAINERS. RINSE RESIDUAL WITH WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: BLACK LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.16 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 40-60% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR

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SECTION 10 - STABILITY AND REACTIVITY (CONT.)

CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 40-60% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

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SECTION 15 - REGULATORY INFORMATION (CONT.)

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
POSSIBLE CANCER HAZARD: A COMPONENT OF THIS PRODUCT HAS BEEN CLASSIFIED AS IARC/2B-POSSIBLE

LABEL PRECAUTIONS:

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WEAR PROPER PROTECTIVE EQUIPMENT.

FIRST AID
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

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SECTION 16 - OTHER INFORMATION (CONT.)

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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MATERIAL SAFETY DATA SHEET

Clariant

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NEOSAN 2000 BLUE
697185 VERSION: 01 REVISED DATE: 01/11/2000

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------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 BLUE
PRODUCT CODE: 697185
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: COPPER PHTHALOCYANINE PIGMENT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
COPPER (AS AN INTEGRAL PART OF DYE MOLECULE)	7440-50-8	<1.5	FUME-0.1 MG/M3 DUST-1 MG/M3 (AS CU) OSHA 1 MG/M3 ACGIH
COPPER COMPOUND	CUCMPD	10	100MG CU /M3 IDLH

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

COPPER: OVEREXPOSURE TO COPPER SALTS CAN CAUSE IRRITATION TO INTACT SKIN. CAN ALSO CAUSE IRRITATION TO THE EYES. INHALATION OF COPPER DUSTS MAY CAUSE IRRITATION TO THE UPPER RESPIRATORY TRACT. EXPOSURE TO COPPER FUMES AND DUST MAY ALSO CAUSE A METALLIC TASTE IN THE MOUTH.

COPPER COMPOUND: NOTE EFFECTS LISTED ABOVE.

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY GENERATE OXIDES OF CARBON AND NITROGEN, COMPOUNDS

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

OF COPPER AND POTENTIALLY OTHER TOXIC FUMES

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM:
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

WEAR PROPER PROTECTIVE EQUIPMENT. PRODUCT CONTAINS HEAVY METALS. SPILLS SHOULD BE SWEPT OR SHOVELED UP AND COLLECTED FOR DISPOSAL. CLEAN UP BY REMOVAL OF CONTAMINATED SOIL OR BY FLUSHING WITH A LIMITED QUANTITY OF WATER IF APPROPRIATE. PLACE MATERIAL OR CONTAMINATED SOILS IN A SUITABLE DISPOSAL CONTAINER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: BLUE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.10 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 62-74% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

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SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT AVAILABLE
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
EFFECTIVE JUNE 24, 1991, C.I. PIGMENT BLUE 15, CAS NUMBER 147-14-8; C.I. PIGMENT GREEN 7, CAS NUMBER 1328-53-6; AND C.I. PIGMENT GREEN 36, CAS NUMBER 14302-13-7 ARE EXEMPT FROM REPORTING REQUIREMENTS UNDER THE CATEGORY "COPPER COMPOUNDS" FROM THE LIST OF TOXIC CHEMICALS UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS PRIORITY POLLUTANT COPPER AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 62-74% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
COPPER COMPOUND	CUCMPD	10	5000

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

SECTION 15 - REGULATORY INFORMATION (CONT.)

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

LABEL PRECAUTIONS:

AVOID BREATHING VAPOR OR DUST. AVOID CONTACT WITH SKIN AND EYES. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE VENTILATION OR RESPIRATORY PROTECTION IN ORDER TO KEEP EXPOSURE BELOW THE TLV VALUES. WASH THOROUGHLY AFTER HANDLING.
FIRST AID:
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES, IF SYMPTOMS OF IRRITATION DEVELOP, SEEK MEDICAL ATTENTION IMMEDIATELY.
SKIN CONTACT: IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES AND WASH

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SECTION 16 - OTHER INFORMATION (CONT.)

AFFECTED AREA THOROUGHLY WITH SOAP AND WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL ATTENTION IMMEDIATELY.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

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MATERIAL SAFETY DATA SHEET

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NEOSAN 2000 CHERRY RED
697085 VERSION: 01 REVISED DATE: 01/11/2000

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ATTN: Product Safety Manager

------ H M I S ------
HEALTH 1 *
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 CHERRY RED
PRODUCT CODE: 697085
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AZO PIGMENT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
N,N-DIMETHYLETHANOLAMINE	108-01-0	<0.5	35 MG/M3 TWA (8 HR); SUPPLIER

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

N,N-DIMETHYETHANOLAMINE: CAUSES EYE IRRITATION, EXPERIENCED AS PAIN, WITH EXCESSIVE BLINKING AND TEAR PRODUCTION, AND SEEN AS MARKED REDNESS, SWELLING, AND CHEMICAL BURNS OF THE EYE. SEVERE EYE DAMAGE MAY CAUSE BLINDNESS. SKIN: NO ADVERSE EFFECTS EXPECTED FROM ABSORPTION THROUGH THE SKIN. SKIN CONTACT CAUSES SEVERE IRRITATION WITH PAIN, SEVERE EXCESS REDNESS AND SWELLING WITH CHEMICAL BURNS, BLISTER FORMATION, AND POSSIBLE TISSUE DESTRUCTION. REPEATED SKIN CONTACT MAY CAUSE A PERSISTENT IRRITATION OR DERMATITIS. INHALATION: VAPORS OR MISTS ARE IRRITATING AND CAUSE NASAL DISCHARGE, COUGHING, DISCOMFORT AND PAIN IN

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SECTION 04 - FIRST AID MEASURES (CONT.)

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN AND SULFUR.

EXTINGUISHING MEDIA:
WATER: X
ALCOHOL FOAM:
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
WEARING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT, CONTAIN SPILL. USE ABSORBENT MATERIAL TO SOAK UP LIQUID. PLACE IN PROPER WASTE DISPOSAL CONTAINERS. RINSE RESIDUAL WITH WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: RED LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.04 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 64-79% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

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SECTION 10 - STABILITY AND REACTIVITY (CONT.)

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

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SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 64-79% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO

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SECTION 15 - REGULATORY INFORMATION (CONT.)

LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
THIS PRODUCT CONTAINS A MATERIAL THAT IS A POTENTIAL SKIN AND RESPIRATORY SENSITIZER.

LABEL PRECAUTIONS:

AVOID BREATHING VAPOR OR DUST. AVOID CONTACT WITH SKIN AND EYES. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE VENTILATION OR RESPIRATORY PROTECTION IN ORDER TO KEEP EXPOSURE BELOW THE TLV VALUES. WASH THOROUGHLY AFTER HANDLING.

MATERIAL SAFETY DATA SHEET

Finish Dept.

Clariant

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NEOSAN 2000 CITRON
697083 VERSION: 01 REVISED DATE: 01/10/2000

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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
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123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------
HEALTH 1 *
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 CITRON
PRODUCT CODE: 697083
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AZO PIGMENT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
N,N-DIMETHYLETHANOLAMINE	108-01-0	<0.5	35 MG/M3 TWA (8 HR); SUPPLIER

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION: X
INGESTION: X

EFFECTS OF EXPOSURE:

N,N-DIMETHYETHANOLAMINE: CAUSES EYE IRRITATION, EXPERIENCED AS PAIN, WITH EXCESSIVE BLINKING AND TEAR PRODUCTION, AND SEEN AS MARKED REDNESS, SWELLING, AND CHEMICAL BURNS OF THE EYE. SEVERE EYE DAMAGE MAY CAUSE BLINDNESS. SKIN: NO ADVERSE EFFECTS EXPECTED FROM ABSORPTION THROUGH THE SKIN. SKIN CONTACT CAUSES SEVERE IRRITATION WITH PAIN, SEVERE EXCESS REDNESS AND SWELLING WITH CHEMICAL BURNS, BLISTER FORMATION, AND POSSIBLE TISSUE DESTRUCTION. REPEATED SKIN CONTACT MAY CAUSE A PERSISTENT IRRITATION OR DERMATITIS. INHALATION: VAPORS OR MISTS ARE IRRITATING AND CAUSE NASAL DISCHARGE, COUGHING, DISCOMFORT AND PAIN IN

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SECTION 04 - FIRST AID MEASURES (CONT.)

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN AND SULFUR.

EXTINGUISHING MEDIA:
WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
WEARING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT, CONTAIN SPILL. USE ABSORBENT MATERIAL TO SOAK UP LIQUID. PLACE IN PROPER WASTE DISPOSAL CONTAINERS. RINSE RESIDUAL WITH WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LEMON LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.03 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 63-78% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

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SECTION 10 - STABILITY AND REACTIVITY (CONT.)

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: Y

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 63-78% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO

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SECTION 15 - REGULATORY INFORMATION (CONT.)

LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
THIS PRODUCT CONTAINS A MATERIAL THAT IS A POTENTIAL SKIN AND RESPIRATORY SENSITIZER.

LABEL PRECAUTIONS:

AVOID BREATHING VAPOR OR DUST. AVOID CONTACT WITH SKIN AND EYES. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE VENTILATION OR RESPIRATORY PROTECTION IN ORDER TO KEEP EXPOSURE BELOW THE TLV VALUES. WASH THOROUGHLY AFTER HANDLING.

MATERIAL SAFETY DATA SHEET

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------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 DARK BROWN
PRODUCT CODE: 697053
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: IRON OXIDE, MANGANESE OXIDE IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
MANGANESE (AS AN INTEGRAL PART OF DYE MOLECULE)	7439-96-5	<9	FUME-TWA-1MG/M3 STEL-3 MG/M3 COMPOUND-5MG/M3 CEILING-OSHA 5 MG/M3 ACGIH
MANGANESE COMPOUND	MNCMPD	<45	500MG MN/M3IDLH

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

MANGANESE (AS INTEGRAL PART OF DYE MOLECULE) - MANGANESE IS AN EXPERIMENTAL TUMORIGEN. HUMAN SYSTEMIC EFFECTS BY INHALATION: DEGENERATIVE BRAIN CHANGES, CHANGE IN MOTOR ACTIVITY, MUSCLE WEAKNESS. MANGANESE IS A MILD SKIN AND EYE IRRITANT. MEN EXPOSED TO MANGANESE DUST HAVE SHOWN A DECREASE IN FERTILITY. MANGANESE LD50 (ORAL-RAT) = 9 G/KG. NONE OF THE ABOVE EFFECTS HAVE BEEN OBSERVED FOR THIS PRODUCT.

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

SEE ABOVE.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): NOT AVAILABLE

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN, AND SULFUR. RESIDUE WILL CONTAIN MANGANESE.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM:
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

OTHER PROTECTIVE EQUIPMENT:
WEAR CLOTHING SUITABLE TO PREVENT SKIN CONTACT. HAVE EYEWASH FOUNTAIN AND SAFETY SHOWER AVAILABLE IN THE WORK AREA.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: DARK BROWN LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.5 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 36-47% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @ 20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS.
LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 36-47% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

SECTION 15 - REGULATORY INFORMATION (CONT.)

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
EXPOSURE TO MANGANESE MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS AND MAY CAUSE REPRODUCTIVE DISORDERS.

CAUTION!
MANGANESE HAS BEEN DETERMINED TO BE AN EXPERIMENTAL TUMORIGEN.

LABEL PRECAUTIONS:

AVOID CONTACT WITH PRODUCT. WEAR PROTECTIVE EQUIPMENT AND CLOTHING. WASH THOROUGHLY AFTER HANDLING.

FIRST AID
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION

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SECTION 16 - OTHER INFORMATION (CONT.)

IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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MATERIAL SAFETY DATA SHEET

Finish Dept

Clariant

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NEOSAN 2000 GREEN
697091 VERSION: 01 REVISED DATE: 01/13/2000

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123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 GREEN
PRODUCT CODE: 697091
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: COPPER PHTHALOCYANINE PIGMENT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
COPPER (AS AN INTEGRAL PART OF DYE MOLECULE)	7440-50-8	<1.8	FUME-0.1 MG/M3 DUST-1 MG/M3 (AS CU) OSHA 1 MG/M3 ACGIH
COPPER COMPOUND	CUCMPD	12	100MG CU /M3 IDLH

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT: X
SKIN ABSORPTION:
EYE CONTACT: X
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

COPPER: OVEREXPOSURE TO COPPER SALTS CAN CAUSE IRRITATION TO INTACT SKIN. CAN ALSO CAUSE IRRITATION TO THE EYES. INHALATION OF COPPER DUSTS MAY CAUSE IRRITATION TO THE UPPER RESPIRATORY TRACT. EXPOSURE TO COPPER FUMES AND DUST MAY ALSO CAUSE A METALLIC TASTE IN THE MOUTH.

COPPER COMPOUND: NOTE EFFECTS LISTED ABOVE.

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY GENERATE OXIDES OF CARBON AND NITROGEN, COMPOUNDS

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

OF COPPER AND POTENTIALLY OTHER TOXIC FUMES

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM:
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

WEAR PROPER PROTECTIVE EQUIPMENT. PRODUCT CONTAINS HEAVY METALS. SPILLS SHOULD BE SWEPT OR SHOVELED UP AND COLLECTED FOR DISPOSAL. CLEAN UP BY REMOVAL OF CONTAMINATED SOIL OR BY FLUSHING WITH A LIMITED QUANTITY OF WATER IF APPROPRIATE. PLACE MATERIAL OR CONTAMINATED SOILS IN A SUITABLE DISPOSAL CONTAINER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: GREEN LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.14 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 56-69% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 5000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

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SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT AVAILABLE
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
EFFECTIVE JUNE 24, 1991, C.I. PIGMENT BLUE 15, CAS NUMBER 147-14-8; C.I. PIGMENT GREEN 7, CAS NUMBER 1328-53-6; AND C.I. PIGMENT GREEN 36, CAS NUMBER 14302-13-7 ARE EXEMPT FROM REPORTING REQUIREMENTS UNDER THE CATEGORY "COPPER COMPOUNDS" FROM THE LIST OF TOXIC CHEMICALS UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS PRIORITY POLLUTANT COPPER AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 56-69% WATER

CERCLA REGULATED COMPONENTS (AS LISTED IN SECTION 2):

COMPONENT	CAS NO.	WT.%	RQ(LB)
COPPER COMPOUND	CUCMPD	12	5000

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

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SECTION 15 - REGULATORY INFORMATION (CONT.)

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:
NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:
CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

LABEL PRECAUTIONS:

AVOID BREATHING VAPOR OR DUST. AVOID CONTACT WITH SKIN AND EYES. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE VENTILATION OR RESPIRATORY PROTECTION IN ORDER TO KEEP EXPOSURE BELOW THE TLV VALUES. WASH THOROUGHLY AFTER HANDLING.
FIRST AID:
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES, IF SYMPTOMS OF IRRITATION DEVELOP, SEEK MEDICAL ATTENTION IMMEDIATELY.
SKIN CONTACT: IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES AND WASH

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SECTION 16 - OTHER INFORMATION (CONT.)

AFFECTED AREA THOROUGHLY WITH SOAP AND WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL ATTENTION IMMEDIATELY.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

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CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

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NEOSAN 2000 LIGHT BROWN
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ATTN: Product Safety Manager

------ H M I S ------
HEALTH 1
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 LIGHT BROWN
PRODUCT CODE: 697051
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: IRON OXIDE PIGMENT IN MAINLY AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRIDECYL-.OMEGA.-HYDROXY-	9043-30-5	1-2.5	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:
SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:
POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRTIDECYL-.OMEGA.-HYDROXY-: ETHOXYLATED ALCOHOLS MAY CAUSE EYE AND SKIN IRRITATION.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:
NONE: X
OSHA:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON AND NITROGEN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LIGHT BROWN LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.5 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 39-47% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

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SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

BIOLOGICAL ELIMINATION:

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT AVAILABLE
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

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SECTION 15 - REGULATORY INFORMATION (CONT.)

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 39-47% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

ATTENTION
UPON EVALUATION, IT HAS BEEN DETERMINED THAT THIS PRODUCT IS NOT SUBJECT TO THE LABELING REQUIREMENTS OF OSHA REGULATION 29 CFR 1910.1200.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

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CHARLOTTE, N.C. 28205

NEOSAN 2000 LIGHT BROWN
697051 VERSION: 01 REVISED DATE: 01/18/2000

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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

NEOSAN 2000 MAGENTA
697054 VERSION: 01 REVISED DATE: 01/13/2000

For Chemical Emergency
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1-800-424-9300

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WOLVERINE WORLD WIDE INC
TANNING DIV/ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 MAGENTA
PRODUCT CODE: 697054
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: QUINACRIDONE PIGMENT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
NONE UNDER 29 CFR 1910.1200			
NONE UNDER TITLE III OF SARA			
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:
SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:
ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN AND SULFUR. OTHER DECOMPOSITON PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM:
CO2: X

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
WEARING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT, CONTAIN SPILL. USE ABSORBENT MATERIAL TO SOAK UP LIQUID. PLACE IN PROPER WASTE DISPOSAL CONTAINERS. RINSE RESIDUAL WITH WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: RED VIOLET LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.02 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 68-79% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

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SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

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CHARLOTTE, N.C. 28205

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 68-79% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

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SECTION 15 - REGULATORY INFORMATION (CONT.)

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

ATTENTION
UPON EVALUATION, IT HAS BEEN DETERMINED THAT THIS PRODUCT IS NOT SUBJECT TO THE LABELING REQUIREMENTS OF OSHA REGULATION 29 CFR 1910.1200.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

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SECTION 16 - OTHER INFORMATION (CONT.)

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NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

Finish Dept.

Clariant

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

NEOSAN 2000 ORANGE
697056 VERSION: 01 REVISED DATE: 02/03/2000

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

WOLVERINE WORLD WIDE INC
TANNING DIV/ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 ORANGE
PRODUCT CODE: 697056
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AZO PIGMENT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRIDECYL-.OMEGA.-HYDROXY-	9043-30-5	1-2.5	NOT ESTABLISHED
N,N-DIMETHYLETHANOLAMINE	108-01-0	<0.3	35 MG/M3 TWA (8 HR); SUPPLIER

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRTIDECYL-.OMEGA.-HYDROXY-: ETHOXYLATED ALCOHOLS MAY CAUSE EYE AND SKIN IRRITATION.

N,N-DIMETHYETHANOLAMINE: CAUSES EYE IRRITATION, EXPERIENCED AS PAIN, WITH EXCESSIVE BLINKING AND TEAR PRODUCTION, AND SEEN AS MARKED REDNESS, SWELLING, AND CHEMICAL BURNS OF THE EYE. SEVERE EYE DAMAGE MAY CAUSE BLINDNESS. SKIN: NO ADVERSE EFFECTS EXPECTED FROM ABSORPTION THROUGH

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

THE SKIN. SKIN CONTACT CAUSES SEVERE IRRITATION WITH PAIN, SEVERE EXCESS REDNESS AND SWELLING WITH CHEMICAL BURNS, BLISTER FORMATION, AND POSSIBLE TISSUE DESTRUCTION. REPEATED SKIN CONTACT MAY CAUSE A PERSISTENT IRRITATION OR DERMATITIS. INHALATION: VAPORS OR MISTS ARE IRRITATING AND CAUSE NASAL DISCHARGE, COUGHING, DISCOMFORT AND PAIN IN EYES, NOSE, THROAT, AND CHEST. SEVERE OVEREXPOSURE MAY CAUSE DIFFICULTY BREATHING, HEADACHE, NAUSEA, VOMITING, AND DROWSINESS. PROLONGED OR REPEATED EXPOSURE MAY RESULT IN LUNG DAMAGE OR RESULT IN THE ABSORPTION OF POTENTIALLY HARMFUL AMOUNTS OF THE MATERIAL. INGESTION: TOXIC, CAUSES ABDOMINAL DISCOMFORT, NAUSEA, VOMITING, DIARRHEA, WEAKNESS, AND COLLAPSE. ASPIRATION MAY OCCUR DURING SWALLOWING OR VOMITING RESULTING IN LUNG DAMAGE. SENSITIZATION PROPERTIES: THIS PRODUCT CONTAINS A MATERIAL THAT IS A POTENTIAL SKIN AND RESPIRATORY SENSITIZER. THEREFORE, INHALATION OF THE PRODUCT MAY CAUSE AN ALLERGIC OR ASTHMA-LIKE REACTION, EXPERIENCED AS WHEEZING, COUGHING, INCREASED MUCOUS PRODUCTION, TIGHTNESS IN THE CHEST, OR DIFFICULTY BREATHING IN SENSITIVE EXPOSED PERSONS. PROLONGED OR REPEATED CONTACT WITH THIS PRODUCT MAY CAUSE AN ALLERGIC SKIN REACTION IN SENSITIVE EXPOSED PERSONS.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

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SECTION 04 - FIRST AID MEASURES (CONT.)

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION OR COMBUSTION MAY PRODUCE CARBON MONOXIDE, CARBON DIOXIDE, AMMONIA, SULFUR OXIDES, NITROGEN OXIDES, AND HYDROGEN CHLORIDE.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

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SECTION 07 - HANDLING AND STORAGE (CONT.)

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: ORANGE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.06 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 52-69% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

NEOSAN 2000 ORANGE
697056 VERSION: 01 REVISED DATE: 02/03/2000

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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT AVAILABLE
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

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SECTION 13 - DISPOSAL CONSIDERATIONS (CONT.)

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):

THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:

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SECTION 15 - REGULATORY INFORMATION (CONT.)

CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 52-69% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

THIS PRODUCT IS SUBJECT TO A SIGNIFICANT NEW USE RULE (SNUR) UNDER THE EPA, FEDERAL REGISTER CITATION: VOLUME 63, NUMBER 23, FEBRUARY 4, 1998, PAGE 5740-5742. SIGNIFICANT NEW USES FOR THIS MATERIAL ARE CONSIDERED AS FOLLOWS:

1. ANY METHOD OF MANUFACTURE, IMPORT, OR PROCESSING FOR ANY USE WITHOUT A HAZARD COMMUNICATIONS PROGRAM AS SPECIFIED IN THE SNUR.
2. ANY METHOD OF MANUFACTURE OF THE PIGMENT IN THE UNITED STATES.
3. ANY METHOD OF PROCESSING OR USE AT TEMPERATURES ABOVE 280 DEGREES CELSIUS.
4. ANY RELEASE OF A PROCESS STREAM TO THE WATERS OF THE UNITED STATES EXCEPT WHEN THE SUBSTANCE IS PROCESSED OR USED AS A COLORANT FOR DYEING PLASTICS, OR WHEN APPLICABLE TREATMENT TECHNOLOGIES ARE APPLIED.

ANY PERSON WHO INTENDS TO MANUFACTURE, IMPORT, OR PROCESS THIS SUBSTANCE FOR A SIGNIFICANT NEW USE AS DEFINED ABOVE MUST NOTIFY THE EPA AT LEAST 90 DAYS BEFORE COMMENCING.
ADDITIONALLY, SPECIFIC RECORDKEEPING REQUIREMENTS APPLY.

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SECTION 16 - OTHER INFORMATION (CONT.)

****
THIS SUBSTANCE DECOMPOSES IN POLYMERS OR SHEET METAL COATINGS AT TEMPERATURES GREATER THAN 280 CELSIUS TO GIVE 3,3' DICHLOROBENZIDINE, A SUSPECT HUMAN CARCINOGEN. IN ORDER TO AVOID THE GENERATION OF AND EXPOSURE TO 3,3'DICHLOROBENZIDINE, DO NOT USE IN POLYMERS WHERE TEMPERATURES EXCEED 280 DEGREES CELSIUS.
****
THIS SUBSTANCE MAY BE TOXIC TO FISH OR AQUATIC ORGANISMS. THIS SUBSTANCE HAS STRUCTURAL SIMILARITES TO CHEMICALS WHICH ARE TOXIC TO AQUATIC ORGANISMS AND SHOULD THEREFORE BE HANDLED AS IF IT DOES HAVE AQUATIC TOXICITY.
****
NOTICE TO USERS: DO NOT RELEASE TO WATER.

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
THIS SUBSTANCE MAY BE TOXIC TO FISH OR AQUATIC ORGANISMS. SEE MSDS FOR DETAILS.
****
NOTICE TO USERS: DO NOT RELEASE TO WATER. SEE MSDS FOR DETAILS.
****
THIS SUBSTANCE DECOMPOSES IN POLYMERS OR SHEET METAL COATINGS AT TEMPERATURES GREATER THAN 280 DEGREES CELSIUS TO GIVE 3,3' DICHLORO-BENZIDINE, A SUSPECT HUMAN CARCINOGEN. IN ORDER TO AVOID THE THE GENERATION OF AND EXPOSURE TO 3,3' DICHLOROBENZIDINE, DO NOT USE IN POLYMERS WHERE TEMPERATURES EXCEED 280 DEGREES CELSIUS.

LABEL PRECAUTIONS:

NOTICE TO USERS: DISPOSAL RESTRICTIONS APPLY. SEE THE MSDS FOR DETAILS.

FIRST AID
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

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SECTION 16 - OTHER INFORMATION (CONT.)

INGESTION: SEEK PROMPT MEDICAL ATTENTION
INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

CLARIANT CORPORATION
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NEOSAN 2000 RED BROWN
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123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 RED BROWN
PRODUCT CODE: 697055
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: IRON OXIDE PIGMENT IN MAINLY AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRIDECYL-.OMEGA.-HYDROXY-	9043-30-5	1-2.5	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:
SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:
POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRTIDECYL-.OMEGA.-HYDROXY-: ETHOXYLATED ALCOHOLS MAY CAUSE EYE AND SKIN IRRITATION.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:
NONE: X
OSHA:

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN AND SULFUR. OTHER DECOMPOSITON PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LIGHT BROWN LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.5 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 39-47% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

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SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

BIOLOGICAL ELIMINATION:

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT AVAILABLE
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

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SECTION 16 - OTHER INFORMATION (CONT.)

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

ATTENTION
UPON EVALUATION, IT HAS BEEN DETERMINED THAT THIS PRODUCT IS NOT SUBJECT TO THE LABELING REQUIREMENTS OF OSHA REGULATION 29 CFR 1910.1200.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

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SECTION 16 - OTHER INFORMATION (CONT.)

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

Finish Dept

Clariant

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TANNING DIV/ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 VIOLET
PRODUCT CODE: 697057
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: DIOXAZINE PIGMENT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV

NONE UNDER 29 CFR 1910.1200
NONE UNDER TITLE III OF SARA
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

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CLARIANT Corporation: (704) 331-7000

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): >212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSTION MAY PRODUCE OXIDES OF CARBON AND NITROGEN. TRACES OF SULFUR, SODIUM, AND HYDROGEN CHLORIDE MAY ALSO BE PRESENT.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM:
CO2: X

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NEOSAN 2000 VIOLET
697057 VERSION: 01 REVISED DATE: 01/18/2000

For Chemical Emergency
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For MSDS Info: (704) 331-7710
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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

DRY CHEMICAL: X
WATER/FOG SPRAY:
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: VIOLET LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NOT AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.13 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 62-72% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): > 2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

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SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT AVAILABLE
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 62-72% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

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SECTION 15 - REGULATORY INFORMATION (CONT.)

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

ATTENTION
UPON EVALUATION, IT HAS BEEN DETERMINED THAT THIS PRODUCT IS NOT SUBJECT TO THE LABELING REQUIREMENTS OF OSHA REGULATION 29 CFR 1910.1200.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

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SECTION 16 - OTHER INFORMATION (CONT.)

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

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TANNING DIV/ATTN: NED TULGAR
123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 WHITE
PRODUCT CODE: 697058
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS PIGMENT DISPERSION CONTAINING TITANIUM DIOXIDE
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
TITANIUM DIOXIDE	13463-67-7	35-45	10 MG/M3 TOTAL DUST OSHA 10 MG/M3 ACGIH 5000 MG/M3 IDLH
POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRIDECYL-.OMEGA.-HYDROXY-	9043-30-5	1-2.5	NOT ESTABLISHED

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

TITANIUM DIOXIDE: A NUISANCE DUST. MAY CAUSE SLIGHT SKIN IRRITATION. IS AN IRRITANT TO THE EYES AND SKIN. EXCESSIVE BREATHING OF VAPORS MAY CAUSE HEADACHE, DIZZINESS AND NAUSEA.

POLY(OXY-1,2-ETHANEDIYL),.ALPHA.-ISOTRTIDECYL-.OMEGA.-HYDROXY-: ETHOXYLATED ALCOHOLS MAY CAUSE EYE AND SKIN IRRITATION.

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SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN AND SULFUR.

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

OTHER DECOMPOSITON PRODUCTS ARE UNKNOWN.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. ALL SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED ON A SUITABLE ABSORBANT. CLEAN UP SHOULD BE ACCOMPLISHED BY REMOVAL OF CONTAMINATED SOIL OR SCRUBBED WITH SOAP AND WATER AND CLEANING WASTES REMOVED WITH ABSORBANT MATERIALS. WEAR PROPER PROTECTIVE EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:

KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:

BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:

LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITE LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.44 G/CM3
BOILING POINT ('F): 212 TYPICAL
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 27-46% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: STRONG OXIDIZING AGENTS

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT

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SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES SHOULD BE INCINERATED OR MAY BE LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: Y
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. ANY SUCH TOXIC CHEMICAL(S) ARE SHOWN IN SECTION 02 OF THIS MSDS. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 27-46% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

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SECTION 15 - REGULATORY INFORMATION (CONT.)

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: AS NOTED PER SECTION 2.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

ATTENTION
UPON EVALUATION, IT HAS BEEN DETERMINED THAT THIS PRODUCT IS NOT SUBJECT TO THE LABELING REQUIREMENTS OF OSHA REGULATION 29 CFR 1910.1200.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.
INGESTION: SEEK PROMPT MEDICAL ATTENTION
INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK

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SECTION 16 - OTHER INFORMATION (CONT.)

MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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NEOSAN 2000 YELLOW
697190 VERSION: 01 REVISED DATE: 01/11/2000

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123 N MAIN ST
ROCKFORD MI 493410000
ATTN: Product Safety Manager

------ H M I S ------

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: NEOSAN 2000 YELLOW
PRODUCT CODE: 697190
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: PROPRIETARY MIXTURE
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: DISAZO PIGMENT IN AQUEOUS DISPERSION
FORMULA: MIXTURE
PRIMARY PRODUCT USE: PIGMENT DISPERSION FOR LEATHER

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
NONE UNDER 29 CFR 1910.1200			
NONE UNDER TITLE III OF SARA			
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:

SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:

ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

FIRST AID FOR INGESTION:

IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:

NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): > 212
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:

THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN, AND SULFUR. HYDROGEN CHLORIDE FUMES MAY ALSO BE EMITTED.

EXTINGUISHING MEDIA:

WATER: X
ALCOHOL FOAM: X
CO2: X

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NEOSAN 2000 YELLOW
697190 VERSION: 01 REVISED DATE: 01/11/2000

For Chemical Emergency
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1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

DRY CHEMICAL: X
WATER/FOG SPRAY: X
NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE. USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
WEARING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT, CONTAIN SPILL. USE ABSORBENT MATERIAL TO SOAK UP LIQUID. PLACE IN PROPER WASTE DISPOSAL CONTAINERS. RINSE RESIDUAL WITH WATER.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
CLOTHING SUITABLE TO PREVENT SKIN CONTACT.

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: YELLOW LIQUID, CHARACTERISTIC ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): 6.5 - 9.5
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 1.06 G/CM3
BOILING POINT ('F): ABOUT 212
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): 63-78% WATER
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

OTHER PHYSICAL AND CHEMICAL PROPERTIES:
VISCOSITY: <= 6000 MPA.S @20'C (68'F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: NONE KNOWN

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): >2000 MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

OTHER TOXICOLOGICAL VALUES:
TOXICOLOGICAL INFORMATION IS GIVEN BASED ON THE CALCULATION PROCEDURE FROM SIMILAR PRODUCTS.

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SECTION 11 - TOXICOLOGICAL INFORMATION (CONT.)

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:

NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:

NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:

SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: DRY EARTH PIGMENTS N.O.I. AS PAINT

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT REGULATED

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SECTION 14 - TRANSPORT INFORMATION (CONT.)

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N

SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): 63-78% WATER

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

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SECTION 15 - REGULATORY INFORMATION (CONT.)

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

ATTENTION
UPON EVALUATION, IT HAS BEEN DETERMINED THAT THIS PRODUCT IS NOT SUBJECT TO THE LABELING REQUIREMENTS OF OSHA REGULATION 29 CFR 1910.1200.

LABEL PRECAUTIONS:

GOOD WORK PRACTICES DICTATE THAT CARE BE TAKEN TO AVOID SKIN AND EYE CONTACT AND INGESTION. WASHING AFTER HANDLING IS ADVISED.

FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

INGESTION: SEEK PROMPT MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN, SEEK MEDICAL ATTENTION IF IRRITATION CONTINUES.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

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SECTION 16 - OTHER INFORMATION (CONT.)

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

Chemical #19-120594

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
NEOSYN 202

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOSYN 202
Common Name: Polymer Solution

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH:	**1**
FLAMMABILITY:	**1**
REACTIVITY:	**0**

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Polymer Solution	Trade Secret	100	PEL: N.E. TLV: N.E.

N.E. = Not Established

WWW_104(e)_017045

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:

Not considered hazardous under normal conditions of use. Exposure to mist or spray may cause irritation of respiratory passages.

Eye:

Temporary irritation or redness may occur.

Skin:

Temporary irritation of the skin may occur in some individuals.

Ingestion:

May cause gastrointestinal, nausea, vomiting and diarrhea.

ACUTE EFFECTS:

Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:

Dermatitis. May aggravate existing skin, eye and lung conditions.

SECTION 4 - First Aid Measures

Eye and Skin Contact:

Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:

Remove to fresh air. If symptoms persist contact a physician.

Ingestion:

This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: > 200°F (93°C)
Method: PMCC
Flammable Limits: Not applicable

Explosive Limits

LEL: Not applicable
UEL: Not applicable
Flammable Classification: Not determined

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Always mix well before using. Product may congeal or stratify if cold. Allow to warm to room temperature and mix well before using.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	Not available	**Density :**	9.1 lb/gal
Evaporation Rate :	Not applicable	**pH :**	Not applicable
Specific Gravity : (Water=1)	1.090	**% Volatiles :** (by Weight)	65-70
Vapor Pressure :	Not applicable	**Flash Point :**	> 200°F (93°C)
Solubility :	Water Miscible	**Viscosity :**	Not applicable

Appearance and Odor :
Clear to hazy colorless to yellow liquid with slight odor.

SECTION 10 - Stability and Reactivity.

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :

Strong oxidizing agents

Hazardous Decomposition Products :

Carbon dioxide, carbon monoxide and oxides of nitrogen and sulfur.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:

Conclusions are drawn from sources other than direct testing.

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:

Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:

Dispose of waste material by incineration in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:

Hazard Class: Non Regulated

Shipping Name:

Harmonized Tariff Code: 3202.10.50 00

HODGSON
Process Chemicals Inc., Leather

NEOSYN 202

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

n/a

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N/A						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
04/01/98	Updated form.

Prepared by: Sharon Mathis

60-120139

Clariant

MATERIAL SAFETY DATA SHEET

Neosyn IR liq

Substance key: CLT619140-V1
Version : 1 - 1 / USA

Revision Date: 11/19/2004
Date of printing :01/17/2006

Section 01 - Product Information

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Textile, Leather, and Paper Chemicals Product Safety 1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**Neosyn IR liq**
Material number:	170766
Formula:	Mixture
Primary product use:	Leather Tanning Agent
Chemical family:	Naphthalenesulfonic Acid Derivative

Section 02 - Composition Information on hazardous ingredients

Hazardous Ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Sulfuric acid	7664-93-9	12 - 15 %

Section 03 - Hazards Identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	yes
Skin absorption:	no

Health effects of exposure:

Sulfuric Acid (7664-93-9)
Sulfuric Acid: Extremely irritating, corrosive and toxic to tissue. Contact with the body results in rapid destruction of tissue, causing severe burns. No systemic effects due to continual ingestion of small amounts of this material have been noted. There are systemic effects secondary to tissue damage caused by contact. However, repeated contact with dilute solutions can cause dermatitis, and repeated or prolonged inhalation of a mist can cause an inflammation of the upper respiratory tract leading to chronic bronchitis. Sensitivity to acid or mists varies with individuals. Normally 0.125-.500 ppm may be mildly annoying and 1.5-2.5 ppm can be definitely unpleasant. 10-20 ppm is unbearable. Workers exposed to low concentrations of the vapor gradually lose their sensitivity to its irritating action. Severe exposure may cause a chemical pneumonitis. Erosion of the teeth due to exposure to strong acid fumes has been recognized in

Clariant

MATERIAL SAFETY DATA SHEET

industry. Chronic effects: this product in its packaged form does not contain any ingredient designated by IARC, NTP, ACGIH, or OSHA as a probable human carcinogen. Aerosols or mists generated from the use of this product may contain sulfuric acid. The international agency for research on cancer (IARC) and the national toxicology program (NTP) has classified strong inorganic acid mists containing sulfuric acid as a known human carcinogen (IARC Category 1). This classification applies only to sulfuric acid when it is generated as a mist. There is still debate in the scientific community whether all the studies reviewed by IARC adequately controlled for confounding occupational exposures and personal habits such as cigarette smoking and alcohol consumption. A few epidemiology studies have suggested a possible association between sulfuric acid exposure and laryngeal or lung cancer; however, workers were exposed to other chemicals in these studies, some of which are recognized carcinogens, such as diethyl sulfate and nickel.

Neosyn IR liq
Inhalation of vapor may cause severe damage to mucous membranes of respiratory tract. Skin contact may be destructive to tissues contacted. Causes severe chemical burns. Direct eye contact may be destructive to eye tissue. Will cause extreme burns that may result in permanent damage and even blindness. Ingestion can cause burns of the mucous membranes of the gastrointestinal tract.

Known effects on other illnesses: No known effects on other illnesses for this product.
Listed carcinogen: IARC: Yes
NTP: No
OSHA: No
Other: No

HMIS:

Health: 3* Flammability: 1 Reactivity: 0 Personal protection: H

Section 04 - First aid measures

After inhalation:
Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult..

After contact with skin:
Immediately flush skin with soap and water. Remove contaminated clothing and shoes. wash clothing before reuse. Contact a physician.

After contact with eyes:
Immediately flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within 1 minute is essential to achieve maximum effectiveness. Seek medical attention immediately.

After ingestion:
Never give anything by mouth to a unconscious person. If swallowed do not induce vomiting. Give large quantities of water. If available, give several glasses of milk. If vomiting occurs spontaneously, keep airway clear. Seek medical attention immediately.

Advice to doctor / Treatment:
None known.

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MATERIAL SAFETY DATA SHEET

Neosyn IR liq

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Section 05 - Fire fighting measures

Flashpoint: > 200 °F

Lower explosion limit: not determined

Upper explosion limit: not determined

Ignition temperature: not determined

Hazardous combustion products:
Thermal decomposition may produce oxides of carbon and sulfur.

Extinguishing media:
water
Alcohol resistant foam
carbon dioxide
Dry Chemical

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants.

Unusual fire and explosion hazards: Acid component is incompatible with metals. May release hydrogen gas on contact..

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:
Store in area where spills or leaks can be contained and disposed of properly. Contain spill. Use large amounts of water to flush area and soda ash or lime should then be spread to neutralize the effluent. If water is not available, cover the spill with sand or dry ashes and neutralize with lime or soda ash. In the case of a major spill, the proper government agency must be notified for their recommendation regarding neutralization and method of disposal obtained.

Section 07 - Handling and storage

Advice on safe handling:
Protect from freezing in storage and transit. Do not store below 50 F (10 C). Mix well before using.

Section 08 - Exposure controls / personal protection

SULFURIC ACID	7664-93-9	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
SULFURIC ACID, THORACIC FRACTION	7664-93-9	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.2 mg/m3

Respiratory protection: NIOSH approved respirator - chemical cartridge respirator with appropriate cartridge, if required.

Hand protection: Rubber Or Plastic.

Eye protection: Chemical splash goggles and full face shield.

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MATERIAL SAFETY DATA SHEET

Neosyn IR liq

Substance key: CLT619140-V1
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Other protective equipment: Rubber safety shoes, or rubbers worn over leather safety shoes. Wear rubber apron if body contact is possible.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form:	Liquid
Color:	Clear, amber
Odor:	Bland odor
pH:	1 - 2 (20 g/l)
Solubility in water:	100 g/l
Melting point :	not determined
Freezing point :	not determined
Boiling point :	not determined
Loss on drying:	40 - 50 % Water

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	Many metals, oxidizing materials, cyanides, and sulfides.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	LD50 (rat) not determined
Skin irritation:	Not tested
Eye irritation:	Not tested

Section 12 - Ecological information

Remarks:

No data available.

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Neosyn IR liq

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Section 13 - Disposal considerations

Waste disposal information:

This product may yield waste subject to the RCRA land disposal restrictions found at 40 CFR 268. These wastes must be treated according to the treatment standards at 40 CFR 268 subpart D before land disposal.

RCRA hazardous waste:

Yes -- If it becomes a waste as sold.
RCRA number: D002

Section 14 - Transport Information

DOT Regulation:

Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s.
Hazard class:	8
Packing group:	III
UN/NA-number:	UN 3264
Primary hazard class:	8
Technical Name:	Sulfuric/Sulfonic Acid
Emergency Response Guide:	154
Reportable Quantity:	3,024.131 kg Sulfuric Acid 0.000 kg

IATA

Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s.
Class:	8
Packing group:	III
UN/ID number:	UN 3264
Primary risk:	8
Hazard inducer(s):	Sulfuric/Sulfonic Acid

IMDG

Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s.
Class:	8
Packing group:	III
UN no.:	UN 3264
Primary risk:	8
Hazard inducer(s):	Sulfuric/Sulfonic Acid
EmS:	F-A S-B

Section 15 - Regulatory Information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes

Clariant

MATERIAL SAFETY DATA SHEET

Neosyn IR liq

Substance key: CLT619140-V1
Version : 1 - 1 /-USA

Revision Date: 11/19/2004
Date of printing :01/17/2006

Delayed/chronic: yes

SARA 302 Information:

Component	CAS-no. (Trade secret no.)	Concentration
Sulfuric acid	7664-93-9	12 - 15 %

SARA 313 Information:

Effective June 30, 1995, non-aerosol forms of sulfuric acid were removed from the list of toxic chemicals under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA). This product as sold does not contain any toxic chemical listed under Section 313 of EPCRA. Any use of this product that would generate an acid aerosol including mists, vapors, gas, fog and other airborne forms of any particle size would have to be evaluated for possible reporting requirements.

Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

CERCLA Information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
SULFURIC ACID	7664-93-9	12 - 15 %	1,000 LBS

FDA:

Permitted for Use per Section: NONE

This product is not registered with the FDA.

Section 16 - Other Information

Other precautions:

Avoid contact with skin, eyes, and clothing. Product is highly corrosive. Keep containers closed when not in use.

Label Information:

DANGER!

CORROSIVE TO SKIN AND EYES MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT. VAPORS OR MISTS GENERATED FROM USE OF THIS PRODUCT MAY CONTAIN SULFURIC ACID WHICH IS CONSIDERED TO BE A HUMAN CARCINOGEN BY IARC AND NTP.

Avoid contact with eyes, skin and clothing. Flush immediately with water if contact occurs. Wear proper protective goggles and other protective equipment. Wash thoroughly after handling. Keep containers closed when not in use. Avoid breathing dust, fumes, or vapor. Use with adequate ventilation.

Eye contact: flush with water for at least 15 minutes while holding eyelids open. Seek immediate medical attention. Skin contact: wash thoroughly with soap and water.

Clariant

MATERIAL SAFETY DATA SHEET

Neosyn IR liq

Substance key: CLT619140-V1
Version : 1 - 1 / USA

Revision Date: 11/19/2004
Date of printing :01/17/2006

Remove contaminated clothing and shoes. Seek medical attention. Wash clothing before reuse. Ingestion: give two glasses of water or milk to dilute stomach contents. Never give anything by mouth to an unconscious person. Induce vomiting only at the instructions of a doctor or nurse. Seek medical attention. Inhalation: remove subject to fresh air. Seek medical assistance.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

5/99

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet

NEOTONE 2-C Red

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOTONE 2-C Red
Common Name: Aqueous Pigment Dispersion

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Iron Oxide,	1309-37-1	29%	PEL: 2 ppm 8-hr TWA (fume) TLV: 2 ppm 8-hr TWA (fume)
Trade Secret Ingredients	Trade Secret	71%	PEL: N.E. TLV: N.E.

N.E. = Not Established

WWW_104(e)_017058

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:

Overexposure to mist or fumes may cause respiratory tract irritation. Iron oxide fumes may cause side effects on prolonged contact, although this condition has not been observed with iron oxide pigments.

Eye:

Temporary irritation or redness may occur.

Skin:

Temporary irritation of the skin may occur in some individuals.

Ingestion:

This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning.

ACUTE EFFECTS:

Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:

Dermatitis, lung injury. May aggravate existing skin, eye and lung conditions.

SECTION 4 - First Aid Measures

Eye and Skin Contact:

Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:

Remove to fresh air. If symptoms persist contact a physician.

Ingestion:

This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: >200 ° F(93° C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures.

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Do not freeze. Protect in transit, store in a warm place. Warm to room temperature and mix well before using.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
NIOSH / MSHA approved respirator if necessary. Follow manufacturer's recommendations.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	212 ° F	**Density :**	Not Available
Flash Point :	>200 ° F(93° C)	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	1.417 g/cc	**% Volatiles : (by Weight)**	58
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Not Available	**Viscosity :**	Not Available

Appearance and Odor :
Red-brown viscous liquid with mild odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
Strong Oxidizing agents.

Hazardous Decomposition Products :
Carbon dioxide, carbon monoxide and iron oxides.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:
Iron Oxide : Acute LD50 = >5.0 g/kg (rat).

CHRONIC EFFECTS:
None Known.

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:
Hazard Class: Non Regulated
Shipping Name:
Harmonized Tariff Code: 3210.00.00 00

HODGSON
Process Chemicals Inc., Leather

NEOTONE 2-C Red

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

Massachusetts Hazardous Chemicals List present:
Iron Oxide, Fume (cas 1309-37-1) 29 %
Pennsylvania Hazardous Chemicals List Present:
Iron Oxide, Fume (cas 1309-37-1) 29 %

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
n/a						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
04/06/98	Updated form.

Prepared by: Sharon Mathis

WWW_104(e)_017063

5/99

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
NEOTONE 29-C RED

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOTONE 29-C RED
Common Name: Aqueous Pigment Dispersion

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH: 2
FLAMMABILITY: 1
REACTIVITY: 0

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Aqueous Pigment Dispersion	Trade Secret	92.6	PEL: N.E. TLV: N.E.

N.E. = Not Established

WWW_104(e)_017064

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:
Temporary irritation of nose and throat may occur

Eye:
Temporary irritation or redness may occur.

Skin:
Temporary irritation of the skin may occur in some individuals.

Ingestion:
This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning.

ACUTE EFFECTS:
Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:
Dermatitis. May aggravate existing skin, eye and lung conditions.

SECTION 4 - First Aid Measures

Eye and Skin Contact:
Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:
Remove to fresh air. If symptoms persist contact a physician.

Ingestion:
This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: > 200°F (93°C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Do not freeze. Protect in transit, store in a warm place. Warm to room temperature and mix well before using.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	~212°F (100°C)	**Density :**	8.60 lb/gal
Flash Point :	> 200°F (93°C)	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	1.032 g/cc	**% Volatiles : (by Weight)**	> 30
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Complete	**Viscosity :**	Not Available

Appearance and Odor :
Red liquid with mild odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :

Strong oxidizing agents.

Hazardous Decomposition Products :

Carbon dioxide, carbon monoxide and oxides of nitrogen.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:

Conclusions are drawn from sources other than direct testing.

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:

Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:

Dispose of waste material by incineration in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:

Hazard Class: Non Regulated

Shipping Name:

Harmonized Tariff Code: 3210.00.00 00

HODGSON
Process Chemicals Inc., Leather

NEOTONE 29-C RED

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

n/a

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N/A						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
02/10/99	Updated form.

Prepared by: Sharon Mathis

WWW_104(e)_017069

5/99

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
NEOTONE 311-C

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOTONE 311-C
Common Name: Aqueous Pigment Dispersion

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

HAZARD RATINGS

HEALTH: 2
FLAMMABILITY: 0
REACTIVITY: 0

Technical Contact Person: Volker Lorenz

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Titanium Dioxide,	13463-67-7	64-70	PEL: 10 mg/m^3 8-hr. TWA TLV: 10 mg/m^3 8-hr. TWA
Diethylene Glycol,	111-46-6	5-10	PEL: N.E. TLV: N.E.
Ethoxylated Nonylphenol,	9016-45-7	1-5	PEL: N.E. TLV: N.E.
Water	7732-18-5	20-25	PEL: N.E. TLV: N.E.

N.E. = Not Established

WWW_104(e)_017070

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:
Temporary irritation of nose and throat may occur

Eye:
Temporary irritation or redness may occur.

Skin:
Temporary irritation of the skin may occur in some individuals.

Ingestion:
May cause gastrointestinal tract irritation, nausea, vomiting, diarrhea, possible dizziness, drowsiness, malaise, kidney and liver damage.

ACUTE EFFECTS:
Skin, eye and respiratory tract irritation, possible central nervous system depression.

CHRONIC EFFECTS:
Dermatitis, central nervous system depression, kidney and liver damage. May aggravate existing skin, eye, lung, nervous system, kidney and liver conditions.

SECTION 4 - First Aid Measures

Eye and Skin Contact:
Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:
Remove to fresh air. If symptoms persist contact a physician.

Ingestion:
This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: > 200°F (93°C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Do not freeze. Protect in transit, store in a warm place. Warm to room temperature and mix well before using.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	Not available	**Density :**	17 lb/gal
Flash Point :	> 200°F (93°C)	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	2.040 g/cc	**% Volatiles : (by Weight)**	20-25
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Dispersible	**Viscosity :**	Not Available

Appearance and Odor :
White liquid with ammonia odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
Strong oxidizing agents.

Hazardous Decomposition Products :
Carbon dioxide and carbon monoxide.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:

Titanium Dioxide: Acute Oral LD50 = > 24 g/kg (rat), Acute Dermal LD50 = > 10 g/kg (rabbit), Acute Inhalation LC50 = > 6820 mg/m^3/4H (rat)

Diethylene Glycol: Acute Oral LD50 = 12.5 g/kg (rat), Acute Dermal LD50 = 12.0 g/kg (rabbit)

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material by incineration in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:

Hazard Class: Non Regulated

Shipping Name:

Harmonized Tariff Code: 3210.00.00 00

HODGSON
Process Chemicals Inc., Leather

NEOTONE 311-C

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

Massachusetts Hazardous Chemicals List present:

Titanium Dioxide (cas 13463-67-7)	64-70 %

Pennsylvania Hazardous Chemicals List Present:

Titanium Dioxide (cas 13463-67-7)	64-70 %
Diethylene Glycol (cas 111-46-6)	5-10 %

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N/A						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
02/10/99	Updated form.

Prepared by: Sharon Mathis

5/99

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
NEOTONE 2452-C OCHRE

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOTONE 2452-C OCHRE
Common Name: Aqueous Pigment Dispersion

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

HAZARD RATINGS

HEALTH:	1
FLAMMABILITY:	0
REACTIVITY:	0

Technical Contact Person: Volker Lorenz

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Iron Oxide,	51274-00-1	29	PEL: 2 ppm 8-hr. TWA (fume) TLV: 2 ppm 8-hr. TWA (fume)
Trade Secret Ingredients	Trade Secret	71	PEL: N.E. TLV: N.E.

N.E. = Not Established

WWW_104(e)_017076

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:

Overexposure to mist or fumes may cause respiratory tract irritation. Iron oxide fumes may cause side effects on prolonged contact, although this condition has not been observed with iron oxide pigments.

Eye:

Temporary irritation or redness may occur.

Skin:

Temporary irritation of the skin may occur in some individuals.

Ingestion:

This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning.

ACUTE EFFECTS:

Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:

Dermatitis, lung injury. May aggravate existing skin, eye and lung conditions.

SECTION 4 - First Aid Measures

Eye and Skin Contact:

Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:

Remove to fresh air. If symptoms persist contact a physician.

Ingestion:

This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: > 200°F (93°C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Do not freeze. Protect in transit, store in a warm place. Warm to room temperature and mix well before using.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	~212°F (100°C)	**Density :**	11.40 lb/gal
Flash Point :	> 200°F (93°C)	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	1.369 g/cc	**% Volatiles :** (by Weight)	58
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Dispersible	**Viscosity :**	Not Available

Appearance and Odor :
Ochre viscous liquid with mild odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :

Strong oxidizing agents.

Hazardous Decomposition Products :

Carbon dioxide, carbon monoxide

SECTION 11 - Toxicological Information

ACUTE EFFECTS:

Iron Oxide: Acute LD50 = > 5.0 g/kg (rat)

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:

Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:

Dispose of waste material by incineration in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:

Hazard Class: Non Regulated

Shipping Name:

Harmonized Tariff Code: 3210.00.00 00

HODGSON
Process Chemicals Inc., Leather

NEOTONE 2452-C OCHRE

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

Massachusetts Hazardous Chemicals List present:
Iron Oxide, Fume (cas 1309-37-1) 29 %
Pennsylvania Hazardous Chemicals List Present:
Iron Oxide, Fume (cas 1309-37-1) 29 %

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N/A						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
02/10/99	Updated form.

Prepared by: Sharon Mathis

WWW_104(e)_017081

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
NEOTUFF 5039D

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOTUFF 5039D
Common Name: Glossy Watertop/Co-Polymer Topcoat

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH:	1
FLAMMABILITY:	0
REACTIVITY:	0

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
N-Methyl Pyrrolidone,	872-50-4	< 2	PEL: N.E. TLV: N.E.
Butyl Carbitol,	112-34-5	< 4	PEL: N.E. TLV: N.E.
Resin Compounds	Mixture	< 2	PEL: N.E. TLV: N.E.

N.E. = Not Established

WWW_104(e)_017082

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:

Overexposure to vapors or mist may cause irritation of respiratory tract, headache, nausea.

Eye:

Temporary irritation or redness may occur.

Skin:

Temporary irritation of the skin may occur in some individuals.

Ingestion:

This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning.

ACUTE EFFECTS:

Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:

Can cause blood changes, kidney and liver damage.

SECTION 4 - First Aid Measures

Eye and Skin Contact:

Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:

Remove to fresh air. If symptoms persist contact a physician.

Ingestion:

This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: > 200°F
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases. Polymer film can burn. Self-contained breathing apparatus should be worn when fighting fires involving chemicals.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources. Add dry material to absorb spill. Using recommended protective equipment, pick up bulk of spill and containerize for recovery or disposal. Flush area with water to remove residues.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material. Monomer vapors can be evolved when material is heated.

Storage to Avoid:
Do not freeze. Protect in transit, store in a warm place. DISCARD IF FROZEN.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	212°F	**Density :**	8.6 lb/gal
Flash Point :	> 200°F	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	1.0 g/cc	**% Volatiles :** (by Weight)	Not Available
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Complete	**Viscosity :**	Not Available

Appearance and Odor :
Viscous white liquid with mild odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
None known

Hazardous Decomposition Products :
None known

SECTION 11 - Toxicological Information

ACUTE EFFECTS:
No testing conducted

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
This product, if disposed as shipped, is not a hazardous waste as specified in 4- CFR 261. Consult state or local officials for proper disposal method.

SECTION 14 - Transport Information

U.S. Department of Transportation:

Hazard Class: Non Regulated

Shipping Name:

Harmonized Tariff Code: 3209.10.00 00

HODGSON
Process Chemicals Inc., Leather

NEOTUFF 5039D

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

Massachusetts Right to Know:
N-Methyl-2-pyrrolidone (cas 872-50-4) < 2 %
Pennsylvania Hazardous Substance List:
N-Methyl-2-pyrrolidone (cas 872-50-4) < 2 %

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
Butyl Carbitol	112-34-5	< 4 %	Listed	n/a	n/a	n/a
N-Methyl Pyrrolidone	872-50-4	< 2 %	Listed	n/a	n/a	n/a

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
04/01/98	Updated form.

Prepared by: Sharon Mathis

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
NEOTUFF 5040B

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOTUFF 5040B
Common Name: Polymer Resin Emulsion

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH:	1
FLAMMABILITY:	0
REACTIVITY:	0

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Polymer Resin Emulsion,	Trade Secret	96	PEL: N.E. TLV: N.E.
N-Methyl Pyrrolidone,	872-50-4	1	PEL: N.E. TLV: N.E.
Diethylene Glycol Monobutyl Ether	112-34-5	3	PEL: N.E. TLV: N.E.

N.E. = Not Established

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:

Overexposure to mist or vapor may cause respiratory tract irritation, headache, nausea, dizziness.

Eye:

Temporary irritation or redness may occur.

Skin:

May cause irritation, especially on prolonged contact. Possible allergic reaction for especially sensitive individuals. May be absorbed in harmful amounts.

Ingestion:

May cause gastrointestinal tract irritation, nausea, vomiting, diarrhea. Possible loss of coordination, dizziness, drowsiness, headache, confusion, stupor if large amounts ingested.

ACUTE EFFECTS:

Possible skin, eye and respiratory tract irritation, central nervous system depression and allergic reaction.

CHRONIC EFFECTS:

Dermatitis, central nervous system depression. May aggravate existing skin, eye, lung and nervous system conditions.

SECTION 4 - First Aid Measures

Eye and Skin Contact:

Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:

Remove to fresh air. If symptoms persist contact a physician.

Ingestion:

This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: > 200°F (93°C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases. Cool exposed containers with water spray. Self-contained breathing apparatus in confined areas.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources. Stop leaks. Clean up large spills with vacuum truck. Soak up small spills with absorbent material and place in labelled waste container for disposal. Wear adequate personal protective clothing and equipment.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Protect from freezing in storage and transit. Do not store below 50°F (10°C). Mix well before using.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	212°F (100°C)	**Density :**	8.6 lb/gal
Flash Point :	> 200°F (93°C)	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	1.030	**% Volatiles : (by Weight)**	79
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Dispersible	**Viscosity :**	Not Available

Appearance and Odor :
White liquid with mild odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
Strong oxidizing agents

Hazardous Decomposition Products :
Carbon dioxide, carbon monoxide and oxides of nitrogen.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:

Diethylene Glycol Monobutyl Ether: Acute Oral LD50=5.66 g/kg (rat), Acute Dermal LD50=4 g/kg (rabbit)

N-Methyl Pyrrolidone: Acute Oral LD50=4.2 g/kg (rat), Acute Dermal LD50=8 g/kg (rabbit)

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material by incineration in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:

Hazard Class: Non Regulated

Shipping Name:

Harmonized Tariff Code: 3209.10.00 00

HODGSON
Process Chemicals Inc., Leather

NEOTUFF 5040B

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

Massachusetts Right to Know:
N-Methyl-2-pyrrolidone (cas 872-50-4) 1 %
Pennsylvania Hazardous Substance List:
N-Methyl-2-pyrrolidone (cas 872-50-4) 1 %

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N-Methyl Pyrrolidone	872-50-4	1	Listed	n/a	n/a	n/a
Diethylene Glycol Monobutyl Ether	112-34-5	3	Listed	n/a	n/a	n/a

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
04/01/98	Updated form.

Prepared by: Sharon Mathis

Rec 2/99

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
NEOTUFF PF-5059

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOTUFF PF-5059
Common Name: Polyurethane Elastomer

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

HAZARD RATINGS

HEALTH: 1
FLAMMABILITY: 1
REACTIVITY: 0

Technical Contact Person: Volker Lorenz

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Propylene Glycol Methyl Ether,	107-98-2	<5.0%	PEL: N.E. TLV: 100 ppm
N-Methyl-2-Pyrrolidone,	872-50-4	<5.0%	PEL: N.E. TLV: N.E.
2-Butoxyethanol	111-76-2	<5.0%	PEL: 25 ppm (skin) TLV: 25ppm (skin)

N.E. = Not Established

WWW_104(e)_017094

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:
Overexposure to mist or vapors may cause headache, nausea, irritation of nose, throat, or lungs.

Eye:
Temporary irritation or redness may occur.

Skin:
Temporary irritation of the skin may occur in some individuals.

Ingestion:
This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning.

ACUTE EFFECTS:
Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:
For excessive exposure to 2-Butoxyethanol: Eye contact may cause corneal injury. Skin Contact may cause blood hemolysis. Inhalation may cause adverse effects including blood and kidney.

SECTION 4 - First Aid Measures

Eye and Skin Contact:
Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:
Remove to fresh air. If symptoms persist contact a physician.

Ingestion:
This product is not intended to be ingested or eaten. If product is ingested, induce vomiting. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: >200 °F(93 °C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Do not freeze. Protect in transit , store in a warm place. DISCARD IF FROZEN.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	>212 °F	**Density :**	8.49 lb/gal
Flash Point :	>200 °F(93 °C)	**Evaporation Rate :**	<1
Specific Gravity : (Water=1)	1.02 g/cc	**% Volatiles :** (by Weight)	Approx. 80%
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Soluble	**Viscosity :**	Not Available

Appearance and Odor :
Semi translucent liquid with slight odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
Oxidizing Material

Hazardous Decomposition Products :
Combustion may produce Carbon Dioxide and toxic Carbon Monoxide.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:
No testing conducted.

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:
Hazard Class: Non Regulated
Shipping Name:
Harmonized Tariff Code: 3209.10.00 00

HODGSON
Process Chemicals Inc., Leather

NEOTUFF PF-5059

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC) or the National Toxicology Program (NTP). 2-Butoxyethanol (cas 111-76-2) is listed by the Occupational Safety and Health Administration (OSHA) in Subpart Z.

State Regulations :

Massachusetts Right to Know:
- N-Methyl-2-pyrrolidone (cas 872-50-4) < 5.0 %
- 2-Butoxyethanol (cas 111-76-2) < 5.0 %

New Jersey Environmental Hazardous Substance List:
- 2-Butoxyethanol (cas 111-76-2) < 5.0 %

Pennsylvania Hazardous Substance List:
- N-Methyl-2-pyrrolidone (cas 872-50-4) < 5.0 %
- 2-Butoxyethanol (cas 111-76-2) < 5.0 %

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
2-Butoxyethanol	111-76-2	<5.0%	Listed	No	No	
N-Methyl Pyrrolidone	872-50-4	<5.0%	Listed	No	No	

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
04/02/98	Updated form.

Prepared by: Sharon Mathis

WWW_104(e)_017099

Rec 3/1/99

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet

NEOTUFF PS-3856

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: NEOTUFF PS-3856
Common Name: Polyurethane Elastomer

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH: 2
FLAMMABILITY: 1
REACTIVITY: 0

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Polyurethane Emulsion,	Trade Secret	> 15	PEL: N.E. TLV: N.E.
N-Methyl-2-Pyrrolidone,	872-50-4	< 13	PEL: N.E. TLV: N.E.
Triethylamine,	121-44-8	2	PEL: 10 ppm 8-hr. TWA, 15 ppm STEL TLV: 1 ppm 8-hr. TWA, 5 ppm STEL
Polyalkylene Oxide/Modified Heptamethyltrisiloxane	27306-78-1	< 2	PEL: N.E. TLV: N.E.

N.E. = Not Established

WWW_104(e)_017100

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:

Overexposure to mist or vapor can cause respiratory tract irritation, headache, mental confusion, and nausea.

Eye:

Causes blurred vision and irritation, which may be severe with corneal injury.

Skin:

Causes irritation and dermatitis which may be severe on prolonged contact.

Ingestion:

Can cause gastrointestinal tract irritation, nausea, vomiting, diarrhea, dizziness, faintness, drowsiness. Vomiting presents an aspiration hazard.

ACUTE EFFECTS:

Skin, eye and respiratory tract irritation, central nervous system depression.

CHRONIC EFFECTS:

Dermatitis, central nervous system depression, pheumonitis. May aggravate existing skin, eye, and nervous system conditions. Prolonged exposure may cause toxic effects.

SECTION 4 - First Aid Measures

Eye and Skin Contact:

Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:

Remove to fresh air. If symptoms persist contact a physician.

Ingestion:

This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: > 200°F (93°C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases. Cool exposed containers with water spray. Self-contained breathing apparatus in confined areas.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources. Stop leaks. Clean up large spills with vacuum truck. Soak up small spills with absorbent material and place in labelled waste container for disposal. Wear adequate personal protective clothing and equipment.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Do not freeze. Protect in transit , store in a warm place. DISCARD IF FROZEN. Mix well before using.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	192-396°F (89-202°C)	**Density :**	8.86 lb/gal
Flash Point :	> 200°F (93°C)	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	1.064	**% Volatiles : (by Weight)**	65
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Dispersible	**Viscosity :**	Not Available

Appearance and Odor :
Translucent liquid with slight ammonia-like odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
Strong oxidizing agents.

Hazardous Decomposition Products :
Carbon dioxide, carbon monoxide and oxides of nitrogen.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:

N-Methyl-2-Pyrrolidone: Acute Oral LD50=4.2 g/kg (rat), Acute Dermal LD50=8.0 g/kg (rabbit)

Triethylamine: Acute Oral LD50=460 mg/kg (rat), Acute Dermal LD50=570 mg/kg (rabbit), Inhalation LCLo=1000 ppm/4H (rat)

CHRONIC EFFECTS:

Triethylamine causes lung, liver kidney and heart damage in laboratory animals at repeated exposures of 100 ppm.

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material by incineration in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:
Hazard Class: Non Regulated
Shipping Name:
Harmonized Tariff Code: 3209.10.00 00

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), or the National Toxicology Program (NTP). Triethylamine (cas 121-44-8) is listed by the Occupational Safety and Health Administration (OSHA) in Subpart Z.

State Regulations :

Massachusetts Right to Know:
- N-Methyl-2-pyrrolidone (cas 872-50-4) < 13 %
- Triethylamine (cas 121-44-8) 2 %

New Jersey Environmental Hazardous Substance List:
- N-Methyl-2-pyrrolidone (cas 872-50-4) < 13 %
- Triethylamine (cas 121-44-8) 2 %

Pennsylvania Hazardous Substance List:
- N-Methyl-2-pyrrolidone (cas 872-50-4) <13 %
- Triethylamine (cas 121-44-8) 2 %

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N-Methyl-2-Pyrrolidone	872-50-4	< 13 %	Listed	n/a	n/a	n/a
Triethylamine	121-44-8	2	Listed	n/a	Yes	5,000 lbs

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
03/10/98	Updated form

Prepared by: Sharon Mathis

MALLINCKRODT

Material Safety Data Sheet

Mallinckrodt, Inc. Science Products Division, P.O. Box M Paris, KY 40361

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Emergency Telephone Number: 314-982-5000

NICKEL SULFATE

PRODUCT IDENTIFICATION:

Synonyms: Nickel (II) sulfate hexahydrate (1:1:6); sulfuric acid, nickel (2+) salt, hexahydrate

Formula CAS No.: 10101-97-0 (Hydrated)

TSCA CAS No.: 7786-81-4 (Anhydrous)

Molecular Weight: 262.88

Chemical Formula: $NiSO_4\ 6H_2O$

Hazardous Ingredients: Nickel sulfate

PRECAUTIONARY MEASURES

WARNING! HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE NASAL OR LUNG DAMAGE. CONTACT MAY CAUSE IRRITATION OR RASH.

Do not get in eyes, in open wounds, or on skin or clothing.
Do not breathe dust.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Nickel and certain nickel compounds may cause cancer.

EMERGENCY/FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. In all cases call a physician.
SEE SECTION 5.

DOT Hazard Class: ORM-E

SECTION 1 Physical Data

Appearance: Deep green transparent crystals.

Odor: Odorless.

Solubility: 62.5 g/100 ml water @ 0°C (32°F).

Boiling Point: Decomposes @ 840°C (1544°F)

Melting Point: Loses water @ 100°C (212°F)

Specific Gravity: 2.07

Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
Not considered to be a fire hazard.

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage. At 53.3°C (128°F), the substance undergoes transition to transparent green crystals. Solutions are acidic.

Hazardous Decomposition Products:
When heated to decomposition it emits toxic fumes of sulfur oxides.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
No incompatibility data found.

SECTION 4 Leak/Spill Disposal Information

Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from dust.

Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust.

Disposal: Whatever cannot be saved for reclamation may be disposed in a RCRA approved hazardous waste facility.

Reportable Quantity (RQ)(CWA/CERCLA) : 5000 lbs.

Ensure compliance with local, state and federal regulations.

AD

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SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:
May cause irritation to the upper respiratory tract. Symptoms may include coughing, sore throat, and shortness of breath.

Ingestion:
Irritating to the digestive tract. Symptoms may include abdominal pain, diarrhea, nausea, and vomiting. Absorption is poor, but should it occur, symptoms may include giddiness, capillary damage, myocardial weakness, central nervous system depression, and kidney and liver damage.

Skin Contact:
May cause skin irritation. Some individuals may become sensitized to the substance and suffer "nickel itch", a form of dermatitis.

Eye Contact:
Contact may cause severe irritation and eye damage.

Chronic Exposure:
Prolonged exposure to excessive concentrations of dust may cause chronic pulmonary disorders.

Aggrevation of Pre-existing Conditions:
Persons with pre-existing skin disorders or impaired respiratory function or asthma may be more susceptible to the effects of this substance.

B. FIRST AID

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:
If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call physician immediately.

Skin Exposure:
Remove any contaminated clothing. Wipe off excess from skin. Wash skin with plenty of water for at least 15 minutes. Get medical attention promptly.

Eye Exposure:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

C. TOXICITY DATA (RTECS, 1986)

No LD50/LC50 information found relating to normal routes of occupational exposure. Mutation references cited. NIOSH has proposed that all "airborne nickel" be considered carcinogenic.

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL):
soluble Nickel compounds as Ni: 0.1 mg/m^3 (TWA)
-ACGIH Threshold Limit Value (TLV):
soluble Nickel compounds as Ni: 0.1 mg/m^3 (TWA)

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)
If the TLV is exceeded, a dust/mist respirator with chemical goggles may be worn, in general, up to ten times the TLV. Consult respirator supplier for limitations. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection:
Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure.

Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.
Eating, drinking, and smoking should not be permitted in areas where solids or liquids containing soluble nickle compounds are handled, processed, or stored.
NIOSH recommends pre-placement and periodic medical exams, with maintaining of records for all employees exposed to nickel in the workplace.

SECTION 7 Storage and Special Information

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Areas in which exposure to nickel metal or soluble nickel compounds may occur should be identified by signs or appropriate means, and access to the area should be limited to authorized persons.

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MALLINCKRODT

Material Safety Data Sheet

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Mallinckrodt, Inc. Science Products Division, P.O. Box M Paris, KY 40361

Emergency Telephone Number: 314-982-5000

Addendum to Material Safety Data Sheet

REGULATORY STATUS

This Addendum Must Not Be Detached from the MSDS

Identifies SARA 313 substance(s)

Any copying or redistribution of the MSDS must include a copy of this addendum

(Chem.Key: NICSU)

Hazard Categories for SARA Section 311/312 Reporting

Acute	Chronic	Fire	Pressure	Reactive
X	X			

Product or Components of Product:	SARA EHS Sect. 302 RQ (lbs.)	SARA EHS Sect. 302 TPQ (lbs.)	SARA Section 313 Chemicals Name List	SARA Section 313 Chemicals Chemical Category	CERCLA Sec.103 RQ (lbs.)	RCRA Sec. 261.33
NICKEL SULFATE (7786-81-4)	No	No	No	Nickel compound	5000	No

SARA Section 302 EHS RQ: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.
SARA Section 302 EHS TPQ: Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.
SARA Section 313 Chemicals: Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.
CERCLA Sec. 103: Comprehensive Enviromental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4
RCRA: Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

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Lab

HMIS 301

**** MATERIAL SAFETY DATA SHEET ****

Nitric Acid
16550

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Nitric Acid
Catalog Numbers:
S71972, S71972-1, S75623-2, S75623-3, S76523, A198C 212, A198C-212, A198C212, A198C4X 212, A198C4X212, A200 212, A200 500, A200 612GAL, A200-212, A200-500, A200-612G, A200-612GAL, A200-612GL, A200212, A200S00, A200612GAL, A200C-2.5, A200C-212, A200C212EA, A200C4X 212, A200C4X212, A200C4X212 1, A200C4X2121, A200C4X2122, A200C4X212L, A200FP 500, A200FP500, A200J500, A200S 500, A200S-2.5, A200S-212, A200S-500, A200S4X212, A200S4X2123, A200S4X212L, A200S500, A200SI 212, A200SI-21, A200SI-212, A200SI212, A200SI21201, A200SI212LC, A206C 212, A206C-212, A206C212, A206C4X 212, A206C4X212, A467 500, A467-1, A467-2, A467-250, A467-500, A4672, A467500, A483 212, A483-212, A483212, A509 212, A509 212 002, A509 500, A509-212, A509-500, A509212, A509212 002, A509212001, A509212002, A509212003, A509212004, A5092122005, A509212LC, A509500, A509SK212, NC9619321, S71972-1MF*, S719721, S719721MF, S71972MF, S71972MF*, S71972SC
Synonyms:
Azotic Acid; Engravers Nitrate; Hydrogen Nitrate.
Company Identification: Fisher Scientific
1 Reagent Lane
Fairlawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
7697-37-2	Nitric acid	68-70	231-714-2
7732-18-5	Water	29-31%	231-791-2

Hazard Symbols: O C
Risk Phrases: 35 8

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: clear to yellow.
Danger! Strong oxidizer. Contact with other material may cause a fire. Corrosive. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns.
Target Organs: No data found.

Potential Health Effects

Eye:
Causes severe eye burns. May cause irreversible eye injury. May cause chemical conjunctivitis and corneal damage.

Skin:
Causes skin burns. May cause deep, penetrating ulcers of the skin. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion:
May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. May cause systemic effects.

Inhalation:
Effects may be delayed. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Aspiration may lead to pulmonary edema. May cause systemic effects. May cause acute pulmonary edema, asphyxia, chemical pneumonitis, and upper airway obstruction caused by edema.

Chronic:
Repeated inhalation may cause chronic bronchitis. Repeated exposure may cause erosion of teeth. Effects may be delayed.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:
Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation is required (at least 30 minutes).

Skin:
Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion:
Do NOT induce vomiting. If victim is conscious and alert, give 2-4

cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:
Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. DO NOT use mouth-to-mouth respiration. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:
Treat symptomatically and

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with combustible materials may cause a fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Substance is noncombustible. Use water with caution and in flooding amounts.

Extinguishing Media:
Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Contact professional fire-fighters immediately.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
Absorb spill with inert material, (e.g., vermiculite, dry sand or earth), then place into a chemical waste container. Do not use combustible materials such as saw dust. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Neutralize spill with sodium bicarbonate. Remove all sources of ignition. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:
Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Do not breathe dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Avoid ingestion and inhalation. Discard contaminated shoes.

Storage:
Keep away from heat, sparks, and flame. Do not store near combustible materials. Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Nitric acid	2 ppm; 4 ppm STEL	2 ppm TWA; 5 mg/m3 TWA 25 ppm IDLH	2 ppm TWA; 5 mg/m3 TWA
Water	none listed	none listed	none listed

OSHA Vacated PELs:
Nitric acid:
2 ppm TWA; 5 mg/m3 TWA
Water:
No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:
Wear appropriate gloves to prevent skin exposure.

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United Kingdom Occupational Exposure Limits
CAS# 7697-37-2: OES-United Kingdom, TWA 2 ppm TWA; 5.2 mg/m3 TWA
CAS# 7697-37-2: OES-United Kingdom, STEL 4 ppm STEL; 10 mg/m3 STEL
CAS# 7697-37-2: OES-United Kingdom, STEL 4 ppm STEL; 10 mg/m3 STEL

Canada
CAS# 7697-37-2 is listed on Canada's DSL/NDSL List.
CAS# 7732-18-5 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of C, D1A, E.
CAS# 7697-37-2 is not listed on Canada's Ingredient Disclosure List.
CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
Exposure Limits
CAS# 7697-37-2: OEL-ARAB Republic of Egypt:TWA 2 ppm (5 mg/m3)
OEL-AUSTRALIA:TWA 2 ppm (5 mg/m3);STEL 4 ppm (10 mg/m3)
OEL-BELGIUM:TWA 2 ppm (5.2 mg/m3);STEL 4 ppm (10 mg/m3)
OEL-CZECHOSLOVAKIA:TWA 2.5 mg/m3;STEL 5 mg/m3
OEL-DENMARK:TWA 2 ppm (5 mg/m3)
OEL-FINLAND:TWA 2 ppm (5 mg/m3);STEL 5 ppm (13 mg/m3);Skin
OEL-FRANCE:TWA 2 ppm (5 mg/m3);STEL 4 ppm (10 mg/m3)
OEL-GERMANY:TWA 10 ppm (25 mg/m3)
OEL-HUNGARY:STEL 5 mg/m3
OEL-JAPAN:TWA 2 ppm (5.2 mg/m3)
OEL-THE PHILIPPINES:TWA 2 ppm (5 mg/m3)
OEL-POLAND:TWA 10 mg/m3
OEL-RUSSIA:TWA 2 ppm;STEL 2 mg/m3;Skin
OEL-SWEDEN:TWA 2 ppm (5 mg/m3);STEL 5 ppm (13 mg/m3)
OEL-SWITZERLAND:TWA 2 ppm (5 mg/m3);STEL 4 ppm (1 mg/m3)
OEL-THAILAND:TWA 2 ppm (5 mg/m3)
OEL-TURKEY:TWA 2 ppm (5 mg/m3)
OEL-UNITED KINGDOM:TWA 2 ppm (5 mg/m3);STEL 4 ppm (10 mg/m3)
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 9/30/1998 Revision #6 Date: 8/02/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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Clothing:
Wear a chemical apron. Wear appropriate clothing to prevent skin exposure.

Respirators:
Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State:	Liquid
Appearance:	clear to yellow
Odor:	strong odor - acrid odor
pH:	1.0
Vapor Pressure:	6.8 mm Hg
Vapor Density:	Not available.
Evaporation Rate:	Not available.
Viscosity:	Not available.
Boiling Point:	186.8 deg F
Freezing/Melting Point:	-43.6 deg F
Autoignition Temperature:	Not available.
Flash Point:	Not available.
NFPA Rating:	Not published.
Explosion Limits, Lower:	Not available.
Upper:	Not available.
Decomposition Temperature:	Not available.
Solubility:	Soluble in water.
Specific Gravity/Density:	1.50
Molecular Formula:	HNO3
Molecular Weight:	63.0119

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Stable. Decomposes when in contact with air, light, or organic matter.
Conditions to Avoid:
High temperatures, incompatible materials, ignition sources, dust generation, moisture, combustible materials, reducing agents.
Incompatibilities with Other Materials:
Reducing agents, acids (organic, e.g. acetic acid, benzoic acid, formic acid, methanoic acid, oxalic acid), alcohols and glycols (e.g. butyl alcohol, ethanol, methanol, ethylene glycol), aldehydes (e.g. acetaldehyde, acrolein, chloral hydrate, formaldehyde), amides (e.g. butyramide, diethyltoluamide, dimethyl formamide), amines (aliphatic and aromatic, e.g. dimethyl amine, propylamine, pyridine, triethylamine), azo, diazo, and hydrazines (e.g. dimethyl hydrazine, hydrazine, methyl hydrazine), carbamates (e.g. carbanolate, carbofuran), caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), cyanides (e.g. potassium cyanide, sodium cyanide), dithiocarbamates (e.g. ferbam, maneb, metham, thiram), esters (e.g. butyl acetate, ethyl acetate, propyl formate), ethers (e.g. dioxane, furfuran, tetrahydrofuran (THF)), fluorides (inorganic, e.g. ammonium fluoride, calcium fluoride, cesium fluoride), hydrocarbons (aromatic, e.g. benzene, chrysene, cumen.
Hazardous Decomposition Products:
Nitrogen oxides.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 7697-37-2: QU5775000 QU5900000
CAS# 7732-18-5: ZC0110000
LD50/LC50:
Not available.
CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg.
Carcinogenicity:
Nitric acid -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Water -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology:
No information found.
Teratogenicity:
No information found.
Reproductive Effects:
No information found.
Neurotoxicity:
No information found.
Mutagenicity:
No information found.
Other Studies:
See actual entry in RTECS for complete information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Other
For more information, see "HANDBOOK OF ENVIRONMENTAL FATE AND EXPOSURE DATA."

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.
US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
Shipping Name: NITRIC ACID
Hazard Class: 8
UN Number: UN2031
Packing Group: II
Canadian TDG
Shipping Name: NITRIC ACID
Hazard Class: 8(9.2)
UN Number: UN2031

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
TSCA
CAS# 7697-37-2 is listed on the TSCA inventory.
CAS# 7732-18-5 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA
Section 302 (RQ)
CAS# 7697-37-2: final RQ = 1000 pounds (454 kg)
Section 302 (TPQ)
CAS# 7697-37-2: TPQ = 1000 pounds; RQ = 1000 pounds
SARA Codes
CAS # 7697-37-2: acute, chronic, flammable.
Section 313
This material contains Nitric acid (CAS# 7697-37-2, 68 70%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.
Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
CAS# 7697-37-2 is listed as a Hazardous Substance under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
CAS# 7697-37-2 is considered highly hazardous by OSHA.
STATE
Nitric acid can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
Water is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level:
None of the chemicals in this product are listed.
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: O C
Risk Phrases:
R 35 Causes severe burns.
R 8 Contact with combustible material may cause fire.
Safety Phrases:
S23B Do not breathe fumes.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36 Wear suitable protective clothing.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
WGK (Water Danger/Protection)
CAS# 7697-37-2: 1
CAS# 7732-18-5: No information available.

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MALLINCKRODT

Material Safety Data Sheet

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Mallinckrodt, Inc. Science Products Division, P.O. Box M Paris, KY 40361

Emergency Telephone Number: 314-982-5000

NITRIC ACID, 70%

PRODUCT IDENTIFICATION:

Synonyms: Aqua Fortis; Azotic Acid; Nitric Acid 70%

Formula CAS No.: 7697-37-2

Molecular Weight: 63.00

Chemical Formula: HNO_3

Hazardous Ingredients: Nitric acid

PRECAUTIONARY MEASURES

DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. INHALATION MAY CAUSE LUNG DAMAGE.

Do not get in eyes, on skin, or on clothing.
Avoid breathing mist.
Use only with adequate ventilation.
Wash thoroughly after handling.
Keep from contact with clothing and other combustible materials.
Do not store near combustible materials.
Store in a tightly closed container.
Remove and wash contaminated clothing promptly.
This substance is classified as a POISON under the Federal Caustic Poison Act.

EMERGENCY/FIRST AID

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. If swallowed, DO NOT INDUCE VOMITING!
Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases call a physician.
SEE SECTION 5.

DOT Hazard Class: Oxidizer

SECTION 1 Physical Data

Appearance: Clear, colorless to slightly yellow liquid.

Odor: Suffocating acrid.

Solubility: Infinite in water.

Boiling Point: 122°C (252°F)

Melting Point: -34°C (-29°F)

Specific Gravity: 1.41

Vapor Density (Air=1): 2-3 approximately

Vapor Pressure (mm Hg): 62 @ 20°C (68°F)

Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Can react with metals to release flammable hydrogen gas.

Explosion:
Reacts explosively with combustible organic or readily oxidizable materials such as: alcohols, turpentine, charcoal, organic refuse, metal powder, hydrogen sulfide, etc.

Fire Extinguishing Media:
If involved in a fire, use water spray.

Special Information:
Increases the flammability of combustible, organic and readily oxidizable materials. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage. Containers may burst when heated.

Hazardous Decomposition Products:
When heated to decomposition, emits toxic nitrogen oxides fumes and hydrogen nitrate. Will react with water or steam to produce heat and toxic and corrosive fumes.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
A dangerously powerful oxidizing agent, concentrated nitric acid is incompatible with most substances, especially strong bases, metallic powders, carbides, hydrogen sulfide, turpentine, and combustible organics.

SECTION 4 Leak/Spill Disposal Information

Isolate or enclose the area of the leak or spill. Clean-up personnel should wear protective clothing and respiratory equipment suitable for toxic or corrosive fluids or vapors.
Small Spills: Flush with water and neutralize with alkaline material (soda ash, lime, etc.). Sewer with excess water.
Larger spills and lot sizes: Neutralize with alkaline material, pick up with absorbent material (sand, earth, vermiculite) and dispose in a RCRA-approved waste facility or sewer the neutralized slurry with excess water if local ordinances allow. Provide forced ventilation to dissipate fumes.

Reportable Quantity (RQ)(CWA/CERCLA) : 1000 lbs.

Ensure compliance with local, state and federal regulations.

AD

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 0 Other: Oxidizer

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SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:
Corrosive! Inhalation of vapors can cause breathing difficulties and lead to pneumonia and pulmonary edema, which may be fatal. Other symptoms may include coughing, choking, and irritation of the nose, throat, and respiratory tract.

Ingestion:
Corrosive! Swallowing nitric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract.

Skin Contact:
Corrosive! Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and stain skin a yellow or yellow-brown color.

Eye Contact:
Corrosive! Vapors are irritating and may cause damage to the eyes. Splashes may cause severe burns and permanent eye damage.

Chronic Exposure:
Long-term exposure to concentrated vapors may cause erosion of teeth. Long term exposures seldom occur due to the corrosive properties of the acid.

Aggrevation of Pre-existing Conditions:
Persons with pre-existing skin disorders or eye disease may be more susceptible to the effects of this substance.

B. FIRST AID

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:
DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Exposure:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Eye Exposure:
Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA (RTECS, 1986)

Inhalation (Rat) LC50: 244 ppm
(NO_2)/30M

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL):
2 ppm (TWA), 4 ppm (STEL)
-ACGIH Threshold Limit Value (TLV):
2 ppm (TWA); 4 ppm (STEL)

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)
If the TLV is exceeded, wear a supplied air, full-facepiece respirator, airlined hood; or self-contained breathing apparatus. Nitric acid is an oxidizer and should not come in contact with cartridges and cannisters that contain oxidizable materials, such as activated charcoal.

Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls to prevent skin contact.

Eye Protection:
Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect from physical damage and direct sunlight. Isolate from incompatible substances. Protect from moisture.

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Mallinckrodt, Inc. Science Products Division, P.O. Box M Paris, KY 40361

Emergency Telephone Number: 314-982-5000

Addendum to Material Safety Data Sheet

REGULATORY STATUS

This Addendum Must Not Be Detached from the MSDS

Identifies SARA 313 substance(s)

Any copying or redistribution of the MSDS must include a copy of this addendum

(Chem.Key: NITRA)

Hazard Categories for SARA Section 311/312 Reporting

Acute	Chronic	Fire	Pressure	Reactive
X	X			X

Product or Components of Product:	SARA EHS Sect. 302 RQ (lbs.)	SARA EHS Sect. 302 TPQ (lbs.)	SARA Section 313 Chemicals Name List	SARA Section 313 Chemicals Chemical Category	CERCLA Sec.103 RQ (lbs.)	RCRA Sec. 261.33
NITRIC ACID, 70% (7697-37-2)	1000	1,000	Yes	No	1000	No

SARA Section 302 EHS RQ: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.
SARA Section 302 EHS TPQ: Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.
SARA Section 313 Chemicals: Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.
CERCLA Sec. 103: Comprehensive Enviromental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4
RCRA: Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

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19-240637

First Source Worldwide, LLC
604 Chatham Court
Neenah, WI 54956

Ph. (920) 915-2546 Fax (920) 722-2546

MATERIAL SAFTEY DATA SHEET

I. Product Identification

Trade Name:	Nigrosine Crystals WS
Chemical Name:	Acid Black 2 Crystals
Chemical Family:	Azine
Color Index #:	Acid Black 2
Last Revision Date:	10/01/01
Preparer:	HMS Dept – Phone: (920) 915-2546

II. Hazardous Components

Component	Percent	T.L.V.
N/A		

III. Physical Data

Boiling Point:	N/A	Solub. In Water:	Soluble
Vapor Pressure:	N/A	Odor:	None
Vapor Density:	N/A	Appearance:	Black Powder
Volatility:	N/A	Specific Grav:	N/A
Freeze Point:	N/A	Evap. Rate:	N/A
Melting Point:	N/A	pH of Product:	N/A

IV. Fire and Explosion Data

Flash Point:	N/A
Flammable Limits:	N/A
In Case of Fire:	Dry chemical, CO2, water spray or regular foam. Move containers from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out.
Fire-Fighting Procedures:	Use self-contained breathing apparatus.
Fire and Explosion Hazards:	In case of fire or explosion, keep unnecessary people away. Isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering.

2 Non Sara

V. Reactivity Data

Stability: Stable
Conditions to avoid: None known
Incompatibility: None known
Hazardous Decomposition Products: Burning will produce oxides of carbon and nitrogen.
Hazardous Polymerization: Will not occur under normal conditions.
Conditions to avoid: None known.

VI. Health Hazard Data

Threshold Limit Value: Not established. Contact may cause eye and skin irritation. Dust may irritate the respiratory tract.
Hazard Warnings: D.O.T. non-regulated substance: This product in its present state poses no threat to human health or the environment.

VII. Emergency and First Aid Procedures

PROCEDURES:

Eyes: Flush eyes with water for at least 15 minutes.
Skin: Wash thoroughly with soap and water. If irritation occurs get medical attention. If clothing is contaminated, remove and wash before reuse.
Inhalation: Remove to fresh air. Get medical attention.
Ingestion: If conscious, give plenty of water to drink. Get medical attention. If unconscious, do not give anything to drink. Get immediate medical attention.

VIII. Special Protection Information

Respiratory: Niosh approved respirator whenever exposure to dust or vapor exceeds the TLV of any items identified under the hazardous component section.
Skin: Rubber gloves, apron, coverall to minimize skin contact.
Eyes: Goggles.
Ventilation: Local exhaust.
Other Protection: Deluge safety shower and eye wash station should be located near work area.

IX. Spill or Leak Procedures:

Steps to be Taken: Do not touch or walk through spilled material. Stop leak if you can do it without risk. Take up with sand or other non-combustible absorbent materials and place into containers for later disposal. Scrub spill area with detergent. Flush with copious amount of water.

Waste Disposal Method: Waste material may be dumped or incinerated under conditions which meet all federal, state and local environmental control regulations. The discarded product is not a hazardous waste under RCRA 40 CFR 261.

Container Reuse Method: Containers should not be reused without professional cleaning and reconditioning.

X. Precaution Measures

29 CFR 1910. 1200 and state right to know laws may designate this product as a nuisance dust. Please refer to section XII of Material Safety Data Sheet for handling instructions.

XI. Transportation Information

DOT Hazard Class:	Non-hazardous
Proper Shipping Name:	Non-hazardous material
DOT Identification #:	
Commodity Class:	Dye Compound, N.O.I.
R / Q:	N/A
R / Q Lbs:	

XII. Regulatory Information

S.A.R.A.: None

T.S.C.A.: In compliance

O.S.H.A. Hazard Classification:

Acute: NO Chronic: NO Flammable: NO

Reactive: NO Oxidizer: NO

	Health	Flammability	Reactivity	Personal Protection
H.M.I.S. Classification:	1	1	0	H
N.F.P.A. Codes	1	1	0	N

XIII. State Right to Know Laws

HAZARDOUS MATERIALS

Ingredients	State Information

NONHAZARDOUS MATERIALS

Ingredients	State Information
Acid Black 2	NJ, PA, MA (8005-03-6)

XIV. Other Information

All information and data appearing on this M.S.D.S. are believed to be reliable and accurate. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by First Source Worldwide, LLC. User assumes all risk and responsibility.

<<<<<<<<<< MATERIAL SAFETY DATA SHEET >>>>>>>>>>

C+K

PREPARATION DATE

10-14-96

ECTION 1 CHEMICAL IDENTIFICATION

C.I. NAME : ACID BLACK 2
C.I. NUMBER : 50420
CAS NUMBER : 8005-03-6
CHEMICAL FAMILY : AZINE DYE
PHYSICAL FORM : POWDER

ECTION 2 COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT NAME	CAS NUMBER	PEL	TLV	%
C.I. ACID BLACK 2*	8005-03-6	NE	NE	99.5

*READ & UNDERSTAND SECTIONS 3, 8 & 11 FOR MORE HEALTH & SAFETY INFORMATION.
WEAR ALL PROTECTIVE EQUIPMENT AND CLOTHING DESCRIBED IN SECTION 8.

ECTION 3 HAZARD IDENTIFICATION AND EMERGENCY OVERVIEW

HMIS RATINGS

HEALTH 1
FLAMMABILITY 1
REACTIVITY 1
PROTECTION F, N

EMERGENCY OVERVIEW:

POSSIBLE EXPOSURES: EYES, SKIN, BREATHING DUSTS, ACCIDENTAL SWALLOWING

POSSIBLE HEALTH EFFECTS:
EYE CONTACT: CAN IRRITATE 1
SKIN CONTACT: CAN IRRITATE 1
BREATHING DUST: NE. TAKE PRECAUTIONS. 1
SWALLOWING: NE. WASH HANDS AFTER HANDLING & BEFORE EATING & DRINKING. 1

SENSITIZATION: NK
TARGET ORGANS: EYES, SKIN 1

CANCER INFORMATION:
PRODUCT AND COMPONENTS NOT KNOWN TO US TO BE CARCINOGENS
NTP: NK
IARC: NK
OSHA: NR

1 PRECAUTIONS:

TO HELP PROTECT YOURSELF FROM EITHER EXPECTED OR UNFORSEEN IRRITATION OR ALLERGIC REACTIONS, WORKERS SHOULD WEAR ALL PROPERLY SELECTED PROTECTIVE EQUIPMENT AND CLOTHING AS INSTRUCTED IN SECTION 8 OF THIS MSDS. WASH HANDS AND FACE AFTER HANDLING AND BEFORE EATING, DRINKING, SMOKING OR USING RESTROOM FACILITIES. AFTER EACH SHIFT, CLEAN ALL PROTECTIVE EQUIPMENT, WASH ALL WORK CLOTHES, AND SHOWER. SEE SECTION 11, TOXICOLOGY INFORMATION.

UNUSUAL HAZARDS: IF MIXED WITH AIR IN SUFFICIENT AMOUNTS & PROPORTIONS, ORGANIC DUSTS CAN FORM FLAMMABLE OR EXPLOSIVE DUST/AIR MIXTURES. AS PRECAUTIONS, KEEP AREAS CLEAN AND AVOID DUST BUILD-UP. HAVE PLENTY OF GOOD VENTILATION. AVOID CREATING VERY DUSTY CONDITIONS. WHEN MIXING, POURING OR PROCESSING BULK AMOUNTS OF POWDERS, GROUND ALL CONTAINERS AND AVOID STATIC CHARGES, SPARKS, SMOKING, OPEN FLAMES, OR OTHER POSSIBLE CAUSES OF FIRE OR EXPLOSION.

SECTION 4 FIRST AID INSTRUCTIONS

EYE CONTACT: IMMEDIATELY RINSE WITH PLENTY OF CLEAN FLOWING WATER FOR AT LEAST 20 MINUTES, HOLDING EYELIDS OPEN TO RINSE COMPLETELY. CALL A DOCTOR, AND GET MEDICAL HELP QUICKLY, AS A PRECAUTION.

SKIN CONTACT: REMOVE AFFECTED CLOTHING. WASH AFFECTED SKIN AREA WITH PLENTY OF SOAP AND WATER. RINSE WITH PLENTY OF WATER. WASH ALL WORK CLOTHES BEFORE WEARING AGAIN. IF ANY REDNESS, SWELLING, ITCHING, OR PAIN OF THE SKIN STARTS, SEE A DOCTOR QUICKLY.

BREATHING PRODUCT DUST: MOVE PERSON TO FRESH AIR. IF PERSON IS HAVING DIFFICULTY BREATHING, GIVE OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET EMERGENCY MEDICAL HELP IMMEDIATELY. CALL 911 IF AVAILABLE IN YOUR AREA, OR OTHER MEDICAL EMERGENCY NUMBER.

SWALLOWING OF PRODUCT: IF SWALLOWED, GIVE PERSON SEVERAL GLASSES OF WATER AND FORCE VOMITING. NEVER GIVE ANY FLUIDS OR FORCE VOMITING IF THE PERSON IS UNCONSCIOUS, OR IS HAVING CONVULSIONS, OR HAS NO GAG REFLEX. CONTACT A DOCTOR IMMEDIATELY TO GET MEDICAL HELP, CALL 911, OR OTHER MEDICAL EMERGENCY SERVICES AVAILABLE IN YOUR AREA.

SECTION 5 FIRE FIGHTING INSTRUCTIONS

FLASH POINT : NA
TYPES OF EXTINGUISHERS : CO2, DRY CHEMICAL, WATER FOG
FIREFIGHTING DIRECTIONS: WEAR SELF-CONTAINED BREATHING APPARATUS TO PROTECT AGAINST POSSIBLY TOXIC FUMES. WEAR FULL FIRE-PROTECTIVE CLOTHING.

SECTION 6 ACCIDENTAL SPILL OR RELEASE INSTRUCTIONS

WEAR A NIOSH APPROVED DUST RESPIRATOR, WITH ALL PROTECTIVE CLOTHING AND EQUIPMENT AS DIRECTED IN THE PERSONAL PROTECTION SECTION OF THIS MSDS.

CONTAIN AND CLEAN UP SPILL IMMEDIATELY. SWEEP POWDERS CAREFULLY, USING AN ABSORBENT (SWEEPING COMPOUND) TO KEEP DOWN THE DUST IN THE AREA. SCOOP MATERIAL & ABSORBENT INTO DISPOSAL DRUM, AND SEAL.

RCRA STATUS: SEE REGULATORY INFORMATION, SECTION 15.

ENVIRONMENTAL PROTECTION: PREVENT FROM ENTERING FLOOR DRAINS OR SEWERS. DO NOT RELEASE TO SEWER WITHOUT PROPER GOVERNMENT PERMISSION AT ALL LEVELS.

SEE SECTION 13, DISPOSAL CONSIDERATIONS/ENVIRONMENTAL PROTECTION PROCEDURES FOR ANY ADITIONAL INFORMATION.

SECTION 7 HANDLING AND STORAGE

PROTECT PRODUCT FROM MOISTURE, STORE IN COOL, DRY PLACE UNDER LOW RELATIVE HUMIDITY, AWAY FROM EXCESSIVE HEAT. STORE IN ORIGINAL OR EQUIVALENT WATER-PROOF CONTAINERS. RESEAL CONTAINERS TIGHTLY AFTER EACH USE.

SHELF LIFE: INDEFINITE WHEN STORED CAREFULLY AS INSTRUCTED ABOVE.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

NOTE: WHEN SELECTING PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING, FOLLOW ALL MANUFACTURER SPECIFICATIONS AND RECOMMENDATIONS THAT APPLY TO YOUR SPECIFIC OPERATIONS AND PROCESSING CONDITIONS. TAKE INTO CONSIDERATION ALL CONDITIONS AND ALL CHEMICALS TO BE HANDLED OR PROCESSED

EYE PROTECTION: WEAR SPLASH-PROOF CHEMICAL SAFETY GOGGLES. CONTACT LENSES SHOULD NOT BE WORN WHEN WORKING WITH CHEMICALS.

SKIN PROTECTION: WEAR CHEMICALLY RESISTANT RUBBER GLOVES, SELECTED WITH YOUR SPECIFIC PROCESSING CONDITIONS AND CHEMICALS TO BE HANDLED IN MIND. WEAR COVERALLS AND BOOTS TO MINIMIZE SKIN CONTACT. AS PRECAUTIONS, WASH HANDS & FACE WITH MILD SOAP & WATER BEFORE EATING, DRINKING, SMOKING, OR USING RESTROOM. AFTER EACH SHIFT, CLEAN ALL PROTECTIVE EQUIPMENT, WASH WORK CLOTHES, AND SHOWER.

LUNG, THROAT & NASAL PROTECTION: WEAR NIOSH APPROVED DUST RESPIRATOR FOR YOUR PARTICULAR OPERATION AND MATERIALS BEING HANDLED.

OTHER PROTECTION: EYE WASH FOUNTAINS & DRENCH SHOWERS SHOULD BE LOCATED WITHIN 100 FEET OR A 10 SECOND WALK OF THE WORK AREA PER ANSI Z358.1-1990

VENTILATION: LOCAL EXHAUST IS RECOMMENDED.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

DESCRIPTION	: BLACK POWDER; NO ODOR
MELTING POINT	: NE
WATER SOLUBILITY	: SOLUBLE
PH	: 7 @ 1.0%
BULK DENSITY	: .40 - .55
% NON-VOLATILES	: 99 - 99.5 (BY WT.)
% VOC'S	: 0
% WATER CONTENT	: 0.5 - 1.0 (BY WT.)

SECTION 10 STABILITY AND REACTIVITY

STABILITY : STABLE
CONDITIONS TO AVOID : NK
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
INCOMPATIBLE MATERIALS : NK
HAZARDOUS DECOMPOSITION PRODUCTS: BURNING CAN PRODUCE OXIDES OF CARBON, NITROGEN, AND SULFUR

SECTION 11 TOXICOLOGY INFORMATION

ORAL LD50 (RAT): > 5000 MG/KG
DERMAL LD50 (RAT): NE
INHALATION LC50 (RAT): NE

EYE EFFECTS (ANIMAL): SLIGHT IRRITANT 1
SKIN EFFECTS (ANIMAL): SLIGHT IRRITANT 1
BREATHING EFFECTS: NE. TAKE PRECAUTIONS.

SEE SECTION 3 FOR ANY OTHER OBSERVATIONS, EXPECTATIONS OR COMMENTS.

1) AS PRECAUTIONS TO HELP MINIMIZE CONTACT, WEAR ALL PROTECTIVE EQUIPMENT & CLOTHING AS INSTRUCTED IN THE EXPOSURE CONTROLS AND PERSONAL PROTECTION SECTION OF THIS MSDS. SEE SECTION SECTION 8.

GENERAL PRECAUTIONS: ALWAYS PRACTICE GOOD INDUSTRIAL HYGIENE, HANDLE WITH CARE, AVOID PERSONAL CONTACT. DO NOT GET INTO EYES OR ON SKIN, DO NOT BREATHE DUST OF PRODUCT, DO NOT SWALLOW. WASH HANDS WITH SOAP AND WATER, AND RINSE WELL AFTER HANDLING PRODUCT. SHOWER AFTER EACH SHIFT. WASH ALL WORK CLOTHING AND COMPLETELY CLEAN ALL PROTECTIVE EQUIPMENT AFTER EACH SHIFT. SEE SECTION 8 AND SECTION 5

MUTAGENICITY: NK

ADDITIONAL INFORMATION: CHECK SECTION 5, HAZARD IDENTIFICATION AND EMERGENCY OVERVIEW

MEDICAL CONDITIONS WORSENED BY EXPOSURE: PERSONS WITH BREATHING AND LUNG PROBLEMS CAN BE AFFECTED BY BREATHING IN ANY TYPE OF DUSTY MATERIAL. PERSONS WITH ASTHMA, ALLERGIES, OR OTHER BREATHING-RELATED PROBLEMS SHOULD STAY AWAY FROM, NOT HANDLE, AND NOT BE EXPOSED TO ANY DUSTY PRODUCTS OR DUSTY CONDITIONS AS A PRECAUTIONARY MEASURE.

SECTION 12 ECOLOGICAL DATA

BOD 5: NE
COD: NE
FISH TOXICITY: NE
SEED TOXICITY: NE
CWA TOXIC POLLUTANTS: NA
BIOLOGICAL ELIMINATION: NA

SECTION 13 DISPOSAL CONSIDERATIONS/ENVIRONMENTAL PROTECTION PROCEDURES

DISPOSAL METHODS:

IT IS RECOMMENDED THAT YOU SELECT AN ALTERNATIVE BELOW ACCORDING TO THE FOLLOWING ORDER OF PREFERENCE, DEPENDING ON ENVIRONMENTAL IMPACT:

1) RECYCLE OR REWORK MATERIAL IF AT ALL POSSIBLE
2) INCINERATE MATERIAL AT AN APPROVED FACILITY
3) TREAT AT AN ACCEPTABLE WASTE TREATMENT FACILITY, OR MUNICIPAL WASTE TREATMENT PLANT AFTER PROPER TESTING & APPROVAL OF WASTE SAMPLES.

IF DISPOSED OF IN IT'S ORIGINAL UNUSED FORM, THIS MATERIAL SHOULD BE TREATED, AND DISPOSED OF AT AN APPROVED SITE OR FACILITY, IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE & LOCAL ENVIRONMENTAL REGULATIONS. YOU MUST CONTACT THE PROPER GOVERNMENT AGENCIES FOR ADDITIONAL DIRECTIONS. ALL WASTE MATERIAL & WASTE WATER SHOULD BE DISPOSED OF CORRECTLY, UNDER ALL FEDERAL, STATE , CITY & COUNTY LAWS.

RCRA STATUS: SEE SECTION 15, REGULATORY INFORMATION

DO NOT RELEASE DYE OR DYE SOLUTION INTO ANY WATERWAYS OR SEWER SYSTEMS WITHOUT PROPER GOVERNMENT PERMISSION FROM ALL LEVELS.

CONTAINER REUSE: AN "EMPTY" CONTAINER CAN CONTAIN PRODUCT RESIDUE, AND SHOULD NOT BE REUSED. IF NOT PROFESSIONALLY CLEANED & RECONDITIONED, CRUSHING OR OTHER MEANS IS RECOMMENDED TO PREVENT UNAUTHORIZED REUSE.

ECTION 14 TRANSPORT INFORMATION

DOT STATUS: NR (GROUND, HIGHWAY AND RAIL)

IATA STATUS: NR (AIR)

ECTION 15 REGULATORY INFORMATION

AICS (AUSTRALIA): NC
CAL. PROP. 65: CONTAINS THE FOLLOWING CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR REPRODUCTIVE TOXICITY: ARSENIC, CHROMIUM*, AND LEAD.
*HEXAVALENT CHROMIUM IS A LISTED CHEMICAL, AND MAY BE PRESENT IN THE TOTAL CHROMIUM INDICATED. NO QUANTITATIVE DATA IS CURRENTLY AVAILABLE.
CERCLA: NR
CONES-TYPICAL METALS PRESENT IN PPM:
CADMIUM NE
CHROMIUM 10 (TOTAL INCLUDING HEXAVALENT CR+6)
LEAD <10
MERCURY NE
DSL (CANADA): COMPONENTS LISTED
ECL (KOREA): NC
EINECS (EUROPE): NC
ENCS (JAPAN): NC
FDA STATUS: NL
OTHER TYPICAL DATA IN PPM:
ARSENIC <10

BARIUM <10

RCRA: NOT HAZARDOUS IN IT'S PURCHASED FORM. HOWEVER, UNDER RCRA, IT IS THE PRODUCT USER'S RESPONSIBILITY TO DETERMINE AT TIME OF DISPOSAL IF ANY MATERIAL CONTAINING THE PRODUCT OR DERIVED FROM THE PRODUCT IS A HAZARDOUS WASTE.

SARA 311/312: IMMEDIATE/ACUTE HEALTH HAZARD : YES
DELAYED/CHRONIC HEALTH HAZARD : NO
FIRE HAZARD : NO
SUDDEN RELEASE OF PRESSURE HAZARD: NO
REACTIVITY HAZARD : NO

SARA 313: NR
TSCA: COMPONENTS LISTED
USDA: NL
WHMIS: NC

SECTION 16 OTHER INFORMATION

CODE KEY

NA = NOT APPLICABLE TO THIS MATERIAL
NC = NOT CERTAIN, UNDETERMINED
ND = NO DATA IS CURRENTLY AVAILABLE
NE = NOT ESTABLISHED, NO TESTING IS PLANNED
NH = NOT HAZARDOUS UNDER CITED REGULATIONS
NK = NONE KNOWN, NO INFORMATION FOUND IN DATA SEARCHS
NL = NOT LISTED OR APPROVED UNDER THESE REGULATIONS
NR = NOT REGULATED OR REPORTABLE

NIOSH = NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARANTEE OR WARRANTY OF ANY KIND EXPRESSED OR IMPLIED, IS MADE WITH RESPECT TO THE INFORMATION CONTAINED HEREIN. THIS MATERIAL SAFETY DATA SHEET WAS PREPARED TO COMPLY WITH THE OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200, AND SUPERSEDES ANY PREVIOUS INFORMATION. PREVIOUSLY DATED SHEETS ARE INVALID & UNAPPLICABLE.

SHIPPER: IMAGING & SENSING TECH. CORP.
202 IST CENTER
HORSEHEADS, NY 14845

MATERIAL SAFETY DATA SHEET

585-000-040

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards

1. PRODUCT IDENTIFICATION

CHEMICAL NAME; CLASS: NON-FLAMMABLE GAS MIXTURE

Containing One or More of the Following Components in a Nitrogen Balance Gas:
Oxygen, 0.0015-23.5%; Propane, 0-1.1%; n-Pentane, 0-0.75%; n-Hexane; 0-0.48%;
Carbon Monoxide, 0.0005-1.0%; Hydrogen Sulfide, 0.001-0.025%

NOTE. MIXTURES COMPRISED OF AN AIR BALANCE GAS CONTAIN BETWEEN 19.5-23.5% OXYGEN.

Effective Date October 16, 1998

SYNONYMS: Not Applicable
CHEMICAL FAMILY NAME: Not Applicable
FORMULA: Not Applicable
Document Number: 50016

Note: The Material Safety Data Sheet is for this gas mixture supplied in cylinders with 33 cubic feet (935 liters) or less gas capacity (DOT - 39 cylinders). This MSDS has been developed for various gas mixtures with the composition of components within the ranges listed in Section 2 (Composition and Information on Ingredients). Refer to the product label for information on the actual composition of the product.

PRODUCT USE.	Calibration of Monitoring and Research Equipment
SUPPLIER/MANUFACTURER'S NAME:	AIR LIQUIDE AMERICA CORPORATION
ADDRESS:	821 Chesapeake Drive Cambridge, MD 21613
EMERGENCY PHONE:	CHEMTREC: 1-800-424-9300
BUSINESS PHONE:	1-410-228-6400
General MSDS Information	1-713/868-0440
Fax on Demand:	1-800/231-1366

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	mole %	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA			
			TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm	OTHER ppm
Oxygen	7782-44-7	0.0015 - 23.5%	There are no specific exposure limits for Oxygen. Oxygen levels should be maintained above 19.5%.					
Propane	74-98-6	0 - 1.1%	Simple Asphyxiant	NE	1000	NE	2100	NIOSH REL: 1000 DFG MAK: 1000 ppm
n-Pentane	109-66-0	0 - 0.75%	600	750	1000 600 (Vacated 1989 PEL)	750 (Vacated 1989 PEL)	1500	NIOSH REL: 120 TWA:610, C (15 min) DFG MAK: 1000
n-Hexane	110-54-3	0 - 0.48%	50	NE	500 50 (Vacated 1989 PEL)	NE	1100	NIOSH REL:50 DFG MAK: 50
Hydrogen Sulfide	7783-06-4	0.001 - 0.025%	10	15	20C 10 (Vacated 1989 PEL)	50 ppm (10 minute maximum peak) 15 (Vacated 1989 PEL)	100	NIOSH REL: 10 ppm C (10 minutes DFG-MAK: 15 ppm
Carbon Monoxide	630-08-0	0.0005 - 1.0%	25	NE	50 35 (Vacated 1989 PEL)	200C (Vacated 1989 PEL)	1200	NIOSH REL: 35 (TWA); 200 C DFG MAK: 30
Nitrogen	7727-37-9	Balance	There are no specific exposure limits for Nigrogen. Nitrogen is a simple asphyxiant (SA). Oxygen levels should be maintained above 19.5%.					

NE = Not Established. C = Ceiling Limit. See Section 16 for Definitions of Terms Used.

NOTE: All WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-1993 format.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a colorless gas which has a rotten-egg odor (due to the presence of Hydrogen Sulfide). The odor cannot be relied on as an adequate warning of the presence of this product, because olfactory fatigue occurs after over-exposure to Hydrogen Sulfide. Hydrogen Sulfide and Carbon Monoxide (another component of this gas mixture) are toxic to humans in relatively low concentrations. Over-exposure to this gas mixture can cause skin or eye irritation, nausea, dizziness, headaches, collapse, unconsciousness, coma and death. Components of this product (Propane, n-Pentane, and n-Hexane) can cause anesthetic or peripheral neuropathy effects. Additionally, releases of this product may produce oxygen-deficient atmospheres (especially in small confined spaces or other poorly-ventilated environments); individuals in such atmospheres may be asphyxiated.

HAZARDOUS MATERIAL INFORMATION SYSTEM

HEALTH	(BLUE)	3
FLAMMABILITY	(RED)	0
REACTIVITY	(YELLOW)	0
PROTECTIVE EQUIPMENT		B

EYES	RESPIRATORY	HANDS	BODY
See Section 8			

For Routine Industrial Applications

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE: The most significant route of over-exposure for this product is by inhalation.

INHALATION: Due to the small size of an individual cylinder of this product, no unusual health effects from over-exposure to the product are anticipated under routine circumstances of use. A significant health hazard associated with this product is the potential of inhalation of Hydrogen Sulfide, a component of this gas mixture. Such over-exposures may occur if this product is used in a confined space or other poorly-ventilated area. Over-exposures to Hydrogen Sulfide can cause dizziness, headache, and nausea. Exposure to this component can result in respiratory arrest, coma, or unconsciousness. Continuous inhalation of low concentrations of Hydrogen Sulfide may cause olfactory fatigue, so that the odor is no longer an effective warning of the presence of this gas. A summary of exposure concentrations and observed effects are as follows:

CONCENTRATION OF HYDROGEN SULFIDE	OBSERVED EFFECT
[illegible] ppm	Odor is obvious and unpleasant.
5[illegible] ppm	Eye irritation. Dryness and irritation of nose, throat
Slightly higher than 50 ppm	Irritation of the respiratory system.
100-150 ppm	Temporary loss of smell.
200-250 ppm	Headache, vomiting nausea. Prolonged exposure may lead to lung damage. Exposures of 4-8 hours can be fatal.
300-500	Swifter onset of symptoms. Death occurs in 1-4 hours.
500 ppm	Headache, excitement, staggering, and stomach ache after brief exposure. Death occurs within 0.5 - 1 hour of exposure.
> 600 ppm	Rapid onset of unconsciousness, coma, death.
> 1000 ppm	Immediate respiratory arrest.
NOTE:	This product contains a maximum of 250 ppm Hydrogen Sulfide. The higher concentration values here are presented to delineate the complete health effects which have been observed for humans after exposure to Hydrogen Sulfide.

Inhalation over-exposures to atmospheres containing more than the Threshold Limit Value of Carbon Monoxide (25 ppm), another component of this gas mixture, can result in serious health consequences. Carbon Monoxide is classified as a chemical asphyxiant, producing a toxic action by combining with the hemoglobin of the blood and replacing the available oxygen. Through this replacement, the body is deprived of the required oxygen, and asphyxiation occurs.

Since the affinity of Carbon Monoxide for hemoglobin is about 200-300 times that of oxygen, only a small amount of Carbon Monoxide will cause a toxic reaction to occur. Carbon Monoxide exposures in excess of 50 ppm will produce symptoms of poisoning if breathed for a sufficiently long time. If this product is released in a small, poorly ventilated area (i.e. an enclosed or confined space), symptoms which may develop include the following:

CONCENTRATION OF CARBON MONOXIDE	OBSERVED EFFECT
All exposure levels:	Over-exposure to Carbon Monoxide can be indicated by the lips and fingernails turning bright red.
200 ppm:	Slight symptoms (i.e. headache) after several hours of exposure.
400 ppm:	Headache and discomfort experienced within 2-3 hours of exposure.
1,000 -2000 ppm:	Within 30 minutes, slight palpitations of the heart occurs. Within 1.5 hours, there is a tendency to stagger
200-2500 ppm:	Within 2 hours, there is mental confusion, headaches, and nausea. Unconsciousness within 30 minutes.
>2500 ppm:	Potential for collapse and death before warning symptoms.

Another hazard associated with this product is the potential for anesthetic and peripheral neuropathy effects after inhalation over-exposures to Propane, n-Pentane and n-Hexane (components of this product). Specific human over-exposure data are available for n-Pentane and n-Hexane, as follows:

CONCENTRATION OF n-PENTANE	OBSERVED EFFECT
Brief (10 minute) up to 5,000 ppm:	No symptoms.
Higher than 5,000 ppm:	Exhilaration, dizziness and headache can occur.
Long term:	Can cause chronic neurological disorder causing damage to the nerves in the hands and feet (peripheral neuropathy).

CONCENTRATION OF n-HEXANE	OBSERVED EFFECT
Brief (10 minute) at 1,500 ppm:	Irritation of the respiratory tract, nausea and headache.
5000 ppm:	Dizziness and drowsiness can occur.
Long term at 500 ppm:	Can affect the nerves in the arms and legs. Effects include numbing or tingling sensations in the fingers and toes, tiredness, muscle weakness, cramps and spasms in the leg, difficulty in holding objects or walking, abdominal pains, loss of appetite, weight loss. More serious exposures can cause damage to the nerves in the hands and feet (peripheral neuropathy).
Eyes and Vision:	Abnormal color perception and pigment changes in the eyes have been reported among industrial workers exposed to 423-1280 ppm for 5 years or more
Blood Cells:	Mild forms of anemia have also been associated with exposure to hexane. These are of temporary nature.

Additionally, if mixtures of this product contain less than 19.5% Oxygen and are released in a small, poorly ventilated area (i.e. an enclosed or confined space), an oxygen-deficient environment may occur. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. Under some circumstances of over-exposure, death may occur. The following effects associated with various levels of oxygen are as follows:

CONCENTRATION OF OXYGEN	OBSERVED EFFECT
12-16% Oxygen:	Breathing and pulse rate increased, muscular coordination slightly disturbed.
10-14% Oxygen:	Emotional upset, abnormal fatigue, disturbed respiration.
6-10% Oxygen:	Nausea, vomiting, collapse, or loss of consciousness.
Below 6%:	Convulsive movements, possible respiratory collapse, and death.

SKIN and EYE CONTACT: Hydrogen Sulfide, a component of this gas mixture, may be irritating to the skin. Inflammation and irritation of the eyes can occur at very low airborne concentration of Hydrogen Sulfide (less than 10 ppm). Exposure over several hours may result in "gas eyes" or "sore eyes" with symptoms of scratchiness, irritation, tearing and burning. Above 50 ppm of Hydrogen Sulfide, there is an intense tearing, blurring of vision, and pain when looking at light. Over-exposed individuals may see rings around bright lights. Most symptoms disappear when exposure ceases. However, in serious cases, the eye can be permanently damaged.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms. Over-exposure to this gas mixture may cause the following health effects:

ACUTE: Due to the small size of the individual cylinder of this product, no unusual health effects from exposure to the product are anticipated under routine circumstances of use. However, Hydrogen Sulfide and Carbon Monoxide (components of this gas mixture) are toxic to humans. Over-exposure to this gas mixture can cause nausea, dizziness, headaches, collapse, unconsciousness, coma, and death. Due to the presence of Hydrogen Sulfide, over-exposures to this gas mixture can also irritate the skin and eyes; severe eye contamination can result in blindness. Inhalation over-exposures to other components of this gas mixture (Propane, n-Pentane, and n-Hexane) can cause anesthetic effects and motor neuropathy (i.e. pain and tingling in feet and hands).

CHRONIC: Abnormal color perception and pigment changes in the eyes have been reported among persons exposed to 420 -1300 ppm of n-Hexane for five years. Additionally, long-term exposure to low levels of n-Hexane or n-Pentane can affect the nerves in the arms and legs. Effects include numbing or tingling sensation, tiredness, cramps, spasms in legs, difficulty holding objects or walking, loss of appetite and weight loss. Pentane isomers, such as n-Pentane, and Propane can cause sensitization of the heart to epinephrine. Refer to Section 11 (Toxicology Information) for additional information on the components of this product.

TARGET ORGANS: Respiratory system, blood system, central nervous system effects, cardiovascular system, reproductive system, skin, eyes.

4. FIRST-AID MEASURES

RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO THIS PRODUCT WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus must be worn.

No unusual health effects are anticipated after exposure to this product, due to the small cylinder size. If any adverse symptom develops after over-exposure to this product, remove victim(s) to fresh air as quickly as possible. Only trained personnel should administer supplemental oxygen and/or cardio-pulmonary resuscitation if necessary.

SKIN EXPOSURE: If irritation of the skin develops after exposure to this gas mixture, Immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention.

EYE EXPOSURE: If irritation of the eye develops after exposure to this gas mixture, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Seek medical assistance immediately, preferably an ophthalmologist.

Victim(s) who experience any adverse effect after over-exposure to this product must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take a copy of the label and the MSDS to physician or other health professional with victim(s).

10. STABILITY and REACTIVITY

STABILITY: Normally stable in gaseous state.

DECOMPOSITION PRODUCTS: The thermal decomposition products of Propane, n-Hexane, and n-Pentane include carbon oxides. The decomposition products of Hydrogen Sulfide include water and sulfur oxides. The other components of this gas mixture do not decompose, per se, but can react with other compounds in the heat of a fire.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Titanium will burn in Nitrogen (the main component of this product). Lithium reacts slowly with Nitrogen at ambient temperatures. Components of this product (Hydrogen Sulfide, Propane, n-Pentane, n-Hexane) are also incompatible with strong oxidizers (i.e. chlorine, bromine pentafluoride, oxygen, oxygen difluoride, and nitrogen trifluoride). Carbon Monoxide is mildly corrosive to nickel and iron (especially at high temperatures and pressures). Hydrogen Sulfide is corrosive to most metals, because it reacts with these substances to form metal sulfides.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contact with incompatible materials. Cylinders exposed to high temperatures or direct flame can rupture or burst.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: The following toxicology data are available for the components of this product:

NITROGEN: There are no specific toxicology data for Nitrogen. Nitrogen is a simple asphyxiant, which acts to displace oxygen in the

n-PENTANE:
LD_{50} (intravenous, mouse) = 446 mg/kg.
LC_{50} (inhalation, rat) = 364 g/m³/4 hours
LCLo (inhalation, mouse) = 325 g/m³/2 hours

n-HEXANE:
E_{ye}, rabbit = 10 mg/ mild
TCLo (inhalation, rat) = 10,000 ppm/7 hr.
TCLo (inhalation, rat) = 5000 ppm/20 hours; teratogenic effects
LD50 (oral, rat) = 28710 mg/kg
LDLo (intraperitoneal, rat) = 9100 mg/kg
LCLo (inhalation, mouse) = 120,000 mg/kg
LD50 (rat, oral): 28,710 mg/kg

ACUTE INHALATION (mouse): 30,000 ppm, narcosis within 30 to 60 minutes; 35,000-40,000 ppm, convulsions and death.

DERMAL (rabbit): 2 to 5 ml/kg for 4 hours resulted in restlessness and discoordination,, death occurred at 5 ml/kg.

CHRONIC INHALATION (rat): 400-600 ppm, 5 days/week, peripheral neuropathy in 45 days; 650 ppm for 143 days, loss of weight and degeneration of the sciatic nerve. (mouse): 250 ppm, peripheral neuropathy within 7 months; no effects at 100 ppm.

PROPANE:
Long-Term Inhalation: No toxicity or abnormalities were observed when monkeys were exposed to approximately 750 ppm for 90 days. Similar results were obtained when monkeys were exposed to an aerosol spray containing 65% propane and isobutane.

CARBON MONOXIDE:
TCLo (inhalation, mouse) = 65 ppm/24 hours (7-18 preg): rep. effects
TCLo (inhalation, mouse) = 8 ppm/1 hour (female 8D post): ter. effects
TCLo (inhalation, human) = 600 mg/m³/10 minutes
LCLo (inhalation, man) = 4000 ppm/30 minutes
TCLo (inhalation, man) = 650 ppm/45 minutes: central nervous system and blood system effects.
LCLo (inhalation, human) = 5000 ppm/5 minutes
LCLo (inhalation, dog) = 4000 ppm/46 minutes
LCLo (inhalation, rabbit) = 4000 ppm
LC_{50} (inhalation, rat) = 1611 ppm/4 hours
LC_{50} (inhalation, guinea pig) = 2450 ppm/4 hours
LC_{50} (inhalation, guinea pig) = 5718 ppm/4 hours
LCLo (inhalation, mammal) = 5000 ppm/5 minutes
LD_{50} (inhalation, wild bird) = 1334 ppm

HYDROGEN SULFIDE:
LCLo (inhalation, human) = 600 ppm/30 minutes
LDLO (inhalation, man) = 5.7 mg/kg; central nervous system, pulmonary effects
LCLo (inhalation, human) = 800 ppm/5 minutes
LC_{50} (inhalation, rat) = 444 ppm
LC_{50} (inhalation, mouse) = 673 ppm/1 hour
LCLo (inhalation, mammal) = 800 ppm/5 minutes

SUSPECTED CANCER AGENT: The components of this gas mixture are not found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, and IARC; therefore, they are not considered to be, nor suspected to be, cancer-causing agents by these agencies.

IRRITANCY OF PRODUCT: Hydrogen Sulfide, a component of this gas mixture, is irritating to the eyes, and may be irritating to the skin.

SENSITIZATION OF PRODUCT: The components of this gas mixture are not known to be skin or respiratory sensitizers. Pentane isomers (i.e. n-Pentane) and Propane can cause cardiac sensitization to epinephrine.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this gas mixture on the human reproductive system.

Mutagenicity: This gas mixture is not expected to cause mutagenic effects in humans.

Embryotoxicity: This gas mixture contains components that may cause embryotoxic effects in humans; however, due to the small total amount of the components, embryotoxic effects are not expected to occur.

Teratogenicity: This gas mixture is not expected to cause teratogenic effects in humans due to the small cylinder size and small total amount of all components. Carbon Monoxide, a component of this gas mixture which exists up to 1%, can cause teratogenic effects in humans. Severe exposure to Carbon Monoxide during pregnancy has caused adverse effects and the death of the fetus. In general, maternal symptoms are an indicator of the potential risk to the fetus since Carbon Monoxide is toxic to the mother before it is toxic to the fetus.

Reproductive Toxicity: This gas mixture is not expected to cause adverse reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generation lines. An embryotoxin is a chemical which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing respiratory conditions may be aggravated by over-exposure to this product. Carbon Monoxide, a component of this gas mixture, can aggravate some diseases of the cardiovascular system, such as coronary artery disease and angina pectoris. Because of the presence of Hydrogen Sulfide, n-Hexane or n-Pentane in this product, central nervous system conditions, eye disorders, or skin problems may be aggravated by over-exposure to this product.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate over-exposure. Hyperbaric oxygen is the most efficient antidote to Carbon Monoxide poisoning, the optimum range being 2-2.5 atm. A special mask or, preferably, a compression chamber to utilize oxygen at these pressures is required. Avoid administering stimulant drugs. Be observant for initial signs of pulmonary edema in the event of severe inhalation over-exposures.

BIOLOGICAL EXPOSURE INDICES (BEIs): Biological Exposure Indices (BEIs) are applicable for this product, as follows:

BIOLOGICAL EXPOSURE INDICES (BEIs) for components of this product are as follows:

CHEMICAL DETERMINANT	SAMPLING TIME	BEI
CARBON MONOXIDE		
• Carboxyhemoglobin in blood	• End of shift	• 3.5% of hemoglobin
• Carbon monoxide in en-exhaled air	• End of shift	• 20 ppm
n-HEXANE		
• 2,5-Hexanedione in urine	• End of shift	• 5 mg/g creatinine
• n-Hexane in end-exhaled air		• Refer to current TLV list.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: The gas will be dissipated rapidly in well-ventilated areas. The following environmental data are applicable to the components of this product.

OXYGEN: Water Solubility = 1 volume Oxygen/32 volumes water at 20°C. Log K_{ow} = -0.65

PROPANE: Log K_{ow} = 2.36. Water Solubility = 62.4 ppm, 25°C. Propane is readily degraded by soil bacteria.

PENTANE: Log K_{ow} = 3.39. Water Solubility = 38.5 mg/L. LOG BCF (n-pentane) = calculated, 1.90 and 2.35, respectively. Photolysis, hydrolysis, and bioconcentration are not anticipated to be important fate processes. Biodegradation and soil adsorption are anticipated to be more important processes for this compound.

n-HEXANE: Log K_{ow} = 3.90-4.11. Water Solubility = 9.5 mg/L. Estimated Bioconcentration Factor =2.24 and 2.89. Bioconcentration in aquatic organisms is low. Hexane is volatile. Rapid volatilization from water and soil is anticipated for this compound. Hexane will float in slick on surface of the water

HYDROGEN SULFIDE: Water Solubility = 1 g/242 mL at 20°C.

CARBON MONOXIDE: Water solubility = 3.3 ml/100 cc at 0°C, 2.3 ml at 20°C.

NITROGEN: Water Solubility = 2.4 volumes Nitrogen/100 volumes water at 0°C; 1.6 volumes Nitrogen/100 volumes water at 20°C.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: No evidence is currently available on this product's effects on plant and animal life. Hydrogen Sulfide and Carbon Monoxide, components of this product can be deadly to exposed animal life, producing symptoms similar to those experienced by humans. This gas mixture may also be harmful to plant life.

EFFECT OF CHEMICAL ON AQUATIC LIFE: No evidence is currently available on this product's effects on aquatic life. The presence of more than a trace of Carbon Monoxide (a component of this product) is a hazard to fish. The following aquatic toxicity data are available for Hydrogen Sulfide (another component of this gas mixture):

TLm (Aeslusso) = 0.111 mg/L/96 hour
TLm (Crantgonyx sp) = 1.07 mg/L/96 hour
TLm (Gammarus) = 0.84 mg/L/96 hour
LC_{50} (fly inhalation) = 380 mg/m³/960 minutes
TLm (Lepomis macrochirus, bluegill sunfish) = 0.0478 mg/L/96 hour
TLm (Lepomis macrochirus, bluegill sunfish) = 0.0448 mg/L/96 hour at 21-22 °C
TLm (Pimephlaes promelas, fathead minnow) = 0.0071-0.53 mg/L/96 hour
TLm (Salvenilis fontinalis, brook trout) = 0.0218-0.038 mg/L/96 hour at 8-12.5 °C

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. Cylinders with undesired residual product may be safely vented outdoors with the proper regulator. For further information, refer to Section 16 (Other Information).

14. TRANSPORTATION INFORMATION

THIS MATERIAL IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Compressed gases, n.o.s. (Nitrogen, *Oxygen) *or the gas component with the next highest concentration after Nitrogen.

HAZARD CLASS NUMBER and DESCRIPTION: 2.2 (Non-Flammable Gas)

UN IDENTIFICATION NUMBER: UN 1956

PACKING GROUP: Not applicable.

DOT LABEL(S) REQUIRED: Non-Flammable Gas

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (1996): 126

MARINE POLLUTANT: The components of this gas mixture are not classified by the DOT as Marine Pollutants (as defined by 49 CFR 172.101, Appendix B).

SPECIAL SHIPPING INFORMATION: Cylinders should be transported in a secure position, in a well-ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards. If transporting these cylinders in vehicles, ensure these cylinders are not exposed to extremely high temperatures (as may occur in an enclosed vehicle on a hot day). Additionally, the vehicle should be well-ventilated during transportation.

Note: DOT 39 Cylinders ship in a strong outer carton (overpack). Pertinent shipping information goes on the outside of the overpack. DOT 39 Cylinders do not have transportation information on the cylinder itself.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: THIS MATERIAL IS CONSIDERED AS DANGEROUS GOODS. Use the above information for the preparation of Canadian Shipments.

15. REGULATORY INFORMATION

SARA REPORTING REQUIREMENTS: This product is subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows:

COMPONENT	SARA 302	SARA 304	SARA 313
Oxygen	NO	NO	NO
Propane	NO	NO	NO
n-Pentane	NO	NO	NO
n-Hexane	NO	YES	YES
Carbon Monoxide	NO	NO	NO
Nitrogen	NO	NO	NO
Hydrogen Sulfide	YES	YES	YES

SARA THRESHOLD PLANNING QUANTITY: Hydrogen Sulfide = 500 lbs.
TSCA INVENTORY STATUS: The components of this gas mixture are listed on the TSCA Inventory.
CERCLA REPORTABLE QUANTITY (RQ): A statutory 1 pound RQ is applicable to n-Hexane until this quantity is adjusted (as a Clean Air Act, Section 112(b) hazardous air pollutant). Hydrogen Sulfide = 100 lbs

OTHER U.S. FEDERAL REGULATIONS:

- Hydrogen Sulfide, Carbon Monoxide, Propane, n-Pentane and n-Hexane are subject to the reporting requirements of CFR 29 1910.1000.
- Hydrogen Sulfide, Propane and n-Pentane are subject to the reporting requirements of Section 112(r) of the Clean Air Act. The Threshold Quantity for each of these gases is 10,000 pounds and so this mixture will not be affected by the regulation.
- Depending on specific operations involving the use of this gas mixture, the regulations of the Process Safety Management of Highly Hazardous Chemicals may be applicable (29 CFR 1910.119). Hydrogen Sulfide is listed in Appendix A of this regulation. The Threshold Quantity for Hydrogen Sulfide under this regulation is 1500 lbs.
- This gas mixture does not contain any Class I or Class II ozone depleting chemicals (40 CFR part 82).
- Nitrogen, Oxygen and n-Hexane are not listed Regulated Substances, per 40 CFR, Part 68, of the Risk Management for Chemical Releases. Hydrogen Sulfide is listed under this regulation in Table 1 as a Regulated Substance (Toxic Substance), in quantities of 10,000 lbs (4,553 kg) or greater. Carbon Monoxide, Propane and n-Pentane are listed under this regulation in Table 3, as Regulated Substances (Flammable), in quantities of 10,000 lbs (4,553 kg) or greater, and so this mixture will not be affected by the regulation.

OTHER CANADIAN REGULATIONS: This gas mixture is categorized as a Controlled Product, Hazard Classes A and D2A, as per the Controlled Product Regulations.

STATE REGULATORY INFORMATION: The components of this gas mixture are covered under the following specific State regulations:

Alaska - Designated Toxic and Hazardous Substances: Carbon Monoxide, Propane, n-Pentane, n-Hexane, Hydrogen Sulfide.
California - Permissible Exposure Limits for Chemical Contaminants: Carbon Monoxide, Nitrogen, Propane, n-Pentane, n-Hexane, Hydrogen Sulfide.
Florida - Substance List: Oxygen, Carbon Monoxide, n-Pentane, n-Hexane, Hydrogen Sulfide
Illinois - Toxic Substance List: Carbon Monoxide, Propane, n-Pentane, n-Hexane, Hydrogen Sulfide.
Kansas - Section 302/313 List: No.
Massachusetts - Substance List: Oxygen, Carbon Monoxide, Propane, n-Pentane, n-Hexane, Hydrogen Sulfide.
Minnesota - List of Hazardous Substances: Carbon Monoxide, Propane, n-Pentane, n-Hexane, Hydrogen Sulfide.
Missouri - Employer Information/Toxic Substance List t: n-Pentane, n-Hexane, Propane, Hydrogen Sulfide.
New Jersey - Right to Know Hazardous Substance List: Oxygen, Carbon Monoxide, Nitrogen, Propane, n-Pentane, n-Hexane.
North Dakota - List of Hazardous Chemicals, Reportable Quantities: Hydrogen Sulfide.
Pennsylvania - Hazardous Substance List: Oxygen, Carbon Monoxide, Nitrogen, Propane, n-Pentane, n-Hexane, Hydrogen Sulfide.
Rhode Island - Hazardous Substance List: Oxygen, Carbon Monoxide, Nitrogen, Propane, n-Pentane, n-Hexane, Hydrogen Sulfide.
Texas - Hazardous Substance List: n-Pentane, n-Hexane, Propane, Hydrogen Sulfide.
West Virginia - Hazardous Substance List: n-Pentane, n-Hexane, Propane, Hydrogen Sulfide.
Wisconsin - Toxic and Hazardous Substances: n-Pentane, n-Hexane, Propane, Hydrogen Sulfide

CALIFORNIA PROPOSITION 65: Carbon Monoxide (a component of this product) is on the California Proposition 65 lists as a chemical known to the State of California to cause birth defects or other reproductive harm.

16. OTHER INFORMATION

INFORMATION ABOUT DOT-39 NRC (Non-Refillable Cylinder) PRODUCTS

DOT 39 cylinders ship as hazardous materials when full. Once the cylinders are relieved of pressure (empty) they are not considered hazardous material or waste. Residual gas in this type of cylinder is not an issue because toxic gas mixtures are prohibited. Calibration gas mixtures typically packaged in these cylinders are Nonflammable n.o.s., UN 1956. A small percentage of calibration gases packaged in DOT 39 cylinders are flammable or oxidizing gas mixtures.

For disposal of used DOT-39 cylinders, it is acceptable to place them in a landfill if local laws permit. Their disposal is no different than that employed with other DOT containers such as spray paint cans, household aerosols, or disposable cylinders of propane (for camping, torch etc.). When feasible, we recommended recycling for scrap metal content. Air Liquide America will do this for any customer that wishes to return cylinders to us prepaid. All that is required is a phone call to make arrangements so we may anticipate arrival. Scrapping cylinders involves some preparation before the metal dealer may accept them. We perform this operation as a service to valued customers who want to participate.

MIXTURES: When two or more gases or liquefied gases are mixed, their hazardous properties may combine to create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an Industrial Hygienist or other trained person when you make your safety evaluation of the end product. Remember, gases and liquids have properties which can cause serious injury or death.

Further information about the handling of compressed gases can be found in the following pamphlets published by: Compressed Gas Association Inc. (CGA), 1725 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4102. Telephone: (703) 412-0900.

P-1 *"Safe Handling of Compressed Gases in Containers"*
AV-1 *"Safe Handling and Storage of Compressed Gases"*
"Handbook of Compressed Gases"

PREPARED BY:

CHEMICAL SAFETY ASSOCIATES, Inc.
9163 Chesapeake Drive, San Diego, CA 92123-1002
619/566-0302
Fax on Demand: 1-800/231-1366

This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of Air Liquide America Corporation's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this product is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

WWW_104(e)_017128

1. Identification of the substance/preparation and company

- Product details

Trade name: NOVALTAN PF

- Manufacturer/supplier details

ZSCHIMMER & SCHWARZ
GmbH & Co.
CHEMISCHE FABRIKEN
Max-Schwarz-Str. 3-5
D-56112 Lahnstein/Rhein
Telephone no.: 02621/12-0
Telefax: 02621/12-407

Information provided by: Produktentwicklung Lederhilfsmittel
Telephone no.: 02621/12-325

Information in case of emergency: Z&S industrial fire brigade
Telephone no.: 02621/12-0

2. Composition / information on ingredients

- Chemical characterization

ALIPHAT.ALDEHYD MIT MEHR.REAKTIV.GRUPPEN WÄSS.LSG.

- Hazardous ingredients

CAS no.	substance Haz. label	R phrases	Concentration
18516-18-2	Propanal, 3-hydroxy-2-(hydroxymethyl)-2-methyl- Xi	36/38	> 10 %
50-00-0	Formaldehyde T	23/24/25,34,40,43	< ,2 %

3. Hazards identification

Irritating to eyes and skin.

4. First aid measures

- General information
  Remove contaminated soaked clothing immediately and dispose of safely.
  Take affected person into fresh air.
  In the event of symptoms refer for medical treatment.

- Inhalation
  Remove the casualty into fresh air and keep him calm.

- Skin contact
  In case of contact with skin wash off immediately with plenty of water.

- Eye contact
  In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

- Ingestion
  Summon a doctor immediately.
  Rinse out mouth and give plenty of water to drink.

5. Special fire-fighting procedures

- Suitable extinguishing media
  water
  alcohol-resistant foam

- Special exposure hazards arising from the substance or preparation itself, combustion products or resulting gases
  Do not inhale explosion and/or combustion gases.
  In the event of fire the following can be released:
  Sulphurous oxides (SOx)
  Cool containers at risk with water spray jet.

- Special protective equipment for firefighters
  Wear full protective suit.

6. Accidental release measures

- Personal precautions
  Do not inhale vapours.
  Avoid contact with eyes and skin.

- Environmental precautions
  Do not discharge into the drains/surface water/groundwaters.
  Suppress gases/vapours/mists with water spray jet.

- Methods for cleaning up/taking up
  Take up with absorbent material.
  e.g. general-purpose binder
  Ensure adequate ventilation.
  Dispose of absorbed material in accordance with the regulations.

7. Handling and storage

- Advice on safe handling
  Keep container tightly closed.
  Ensure adequate ventilation.
  Protect from sun.

- Advice on protection against fire and explosion
  Keep away from sources of ignition - do not smoke.

- Requirements for storage rooms and vessels
  Keep container in a well-ventilated place.

- Further information on storage conditions
  Do not keep at temperatures above 30 °C.

- Storage class (FRG)
  10

8. Exposure controls / personal protection

- Components with occupational exposure limits to be monitored

CAS no.	Description of substance	Type	Value
50-00-0	Formaldehyde	MAK value:	0,5 ppm 0,6 mg/m³

The values indicated have been taken from lists valid at the time of issue (e.g. TRGS 900 (Germany)).

- General protective measures / hygiene measures
  Observe the usual precautions when handling chemicals.

- Hand protection
  Synthetic rubber gloves

- Eye protection
  goggles

- Skin protection
  light protective clothing

9. Physical and chemical properties

Form:	liquid
Colour:	colourless clear - cloudy
Odour:	pungent
Melting point:	< 0 °C
Boiling point:	100 °C
Flash point:	> 62 °C
Density:	1,13 g/cm³ at 20 °C
Solubility: water	miscible
pH-value:	approx. 7 at 20 °C
Viscosity (dynamic):	8 mPa*s at 20 °C
Solvent separation test:	not applicable
Solvent content:	0 %

10. Stability and reactivity

- Conditions to be avoided
  No special measures necessary.

- Hazardous decomposition products
  Sulphurous oxides (SOx)

11. Toxicological information

- Primary irritancy
  Effect on skin: irritant
  Effect on eyes: irritant

- Experiences made in practice
  Irritating to respiratory system.

- General remarks
  The product has not been tested. The information is derived from the properties of the individual components.
  The product was classified on the basis of the calculation procedure of the preparation directive (88/379/EC).

12. Ecological information

- Data on elimination (persistance and degradability)

- Method of analysis
  COD decrease

- Method
  OECD 302B / ISO 9888 / EEC 88/302 C

- Eliminability:
  90 % after 11 d

- Validation
  Readily eliminable from water.

- General information
  The product is biodegradable.

- Ecotoxic effects

- Behaviour in sewage treatment plants
  According to available knowledge, causes no problems in biological decomposition in sewage treatment plants.

- General ecological information

COD value:	546 mgO2/g	
BOD value:	91 mgO2/g	after 5 d

13. Disposal considerations

- Product
  Can be taken to an incineration plant, if relevant regulations in force are being observed and, if necessary, after consulting the waste disposal agency, respectively the relevant authorities.
- Contaminated packaging
  Consult manufacturer.

14. Transport information

not applicable

15. Regulatory information

- Labelling according to EC directives

Labelling on the basis of our own findings.

- Hazard symbols
  Xi - irritant

- R phrases
  36/38
  Irritating to eyes and skin.

- S phrases
  26
  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  28
  After contact with skin, wash immediately with plenty of water
  37/39
  Wear suitable gloves and eye/face protection.

- Other regulations, restrictions and prohibition regulations

- Decree for case of interference (FRG): nein

- Water hazard class (FRG): 2
  self-classification (VwVwS)

16. Additional information
Issuing department: Produktentwicklung Lederhilfsmittel
Person to contact: 02621/12-325

if different from Chap. 1.

This information is based on our present state of knowledge. It should not be construed as guaranteering specific properties of the products described or their suitability for a particular application. Existing acts and regulations must be observed by the recipient of our products under his own responsibility.

CHEMTAN CO. INC.
P.O. Box C
Exeter, NH 03833-6003

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : NUBUCK II SPRAY
IDENTIFICATION NUMBER: 99-0127
PRODUCT USE/CLASS : Emulsion

DATE PRINTED: 06/04/03

SUPPLIER:
Prime Leather Finishes Company
205 S. Second St
Milwaukee, WI 52204

EMERGENCY TELEPHONE: 414-276-1668
7:00 am - 4:30 pm

MANUFACTURER:
Prime Leather Finishes Company
205 S. Second St
Milwaukee, WI 53204

EMERGENCY TELEPHONE: 414-276-1668
7:00 am - 4:30 pm

PREPARER: Brenda Schoenike, PHONE: 262-691-1930, PREPARE DATE: 11/20/02

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % EQUAL TO
	No Hazardous Materials are Contained in this Product		

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: No Information.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Can cause eye irritation, redness, tearing.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

EFFECTS OF OVEREXPOSURE - INHALATION: No hazard in normal industrial use. If product is sprayed, inhalation of solid airborne particles may irritate the respiratory tract and lungs.

EFFECTS OF OVEREXPOSURE - INGESTION: No hazard in normal industrial use.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: No chronic effects expected in normal use.

(Continued on Page 2)

Product: 99-0127 Preparation Date: 11/20/02 Page 2

SECTION 3 - HAZARDS IDENTIFICATION

PRIMARY ROUTE(S) OF ENTRY: Unknown

SECTION 4 - FIRST AID MEASURES

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

FIRST AID - SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

FIRST AID - INHALATION: Remove from exposure, treat symptomatically. Get medical attention if symptoms persist.

FIRST AID - INGESTION: If swallowed, give water to dilute. Do not induce vomiting.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: N.A.

LOWER EXPLOSIVE LIMIT: N.A.
UPPER EXPLOSIVE LIMIT: N.A.

AUTOIGNITION TEMPERATURE: N.D.

EXTINGUISHING MEDIA: Unknown

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not applicable.

SPECIAL FIREFIGHTING PROCEDURES: Not applicable.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb small spills with inert material and place in chemical waste container. For a large spill: dike area of spill and pump to salvage container. Collect remainder on inert material and place in chemical waste container.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling.

STORAGE: Keep from freezing. Keep container closed when not in use.

(Continued on Page 3)

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

RESPIRATORY PROTECTION: Good general ventilation should be sufficient to control airborne levels. If material is sprayed, sufficient local exhaust must be used to remove solid airborne particles.

SKIN PROTECTION: Gloves should be worn to avoid prolonged skin contact.

EYE PROTECTION: Wear safety glasses with side shields or goggles.

OTHER PROTECTIVE EQUIPMENT: Where splashing is possible, an impermeable apron and boots should be worn.

HYGIENIC PRACTICES: Wash hands before eating. Avoid prolonged or repeated contact with skin.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE	: N.A.	VAPOR DENSITY	: Is lighter than air
ODOR	: Mild	ODOR THRESHOLD	: N.D.
APPEARANCE	: Milky liquid	EVAPORATION RATE	: Is slower than Butyl Acetate
SOLUBILITY IN H2O	: Miscible	SPECIFIC GRAVITY	: 0.9975
FREEZE POINT	: N.D.	pH @ 0.0 %	: N.D.
VAPOR PRESSURE	: N.D.	VISCOSITY	: N.D.
PHYSICAL STATE	: N.D.		
WEIGHT % SOLIDS	: 7.12		

(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Hazardous polymerization will not occur.

INCOMPATIBILITY: None.

HAZARDOUS DECOMPOSITION PRODUCTS: Burning may produce carbon dioxide and carbon monoxide.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

No product or component toxicological information is available.

Toxic section 11B: No Information.

(Continued on Page 4)

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Not considered a hazardous waste by RCRA regulations. Liquids cannot be landfilled under current regulations.

SECTION 14 - TRANSPORTATION INFORMATION

No transportation information is available.

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Non-hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

SARA SECTION 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	WT/WT %
No SARA Section 313 components exist in this product.		

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 11/20/02

VOLATILE ORGANIC COMPOUNDS (VOCS): 0 lbs/gal, grams/ltr

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

(Continued on Page 5)

DISCLAIMER

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

<END OF MSDS>

Prime Leather Finishes
Prime Coatings
1002 Hickory Street
Pewaukee, WI 53072
Ph: 262 691 1930
Fax: 262 691 3892
prime@execepc.com

Date: 6-4-03

Pages: 6

To: Wolverine Leathers

Attn: Sue Bonter

Fax #: 616 866 3680

Product Number: 99-0127

Following are the Material Safety Data Sheets you requested. If you have any questions, or do not receive all pages, please let us know as soon as possible.

EXXON COMPANY, U.S.A.
A DIVISION OF EXXON CORPORATION

DATE ISSUED: 03/22/99
SUPERSEDES DATE: 01/24/97

MATERIAL SAFETY DATA SHEET

EXXON COMPANY, U.S.A. P.O. BOX 2180 HOUSTON, TX 77252-2180

A. IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME
NUTO H 46

PRODUCT CODE
363012 - 01336

PRODUCT CATEGORY
Petroleum Lubricating Oil

PRODUCT APPEARANCE AND ODOR
Clear liquid, yellow color
Mild, bland petroleum odor

MEDICAL EMERGENCY TELEPHONE NUMBER: (713) 656-3424

TRANSPORTATION EMERGENCY TELEPHONE NUMBERS
(BAYTOWN) (281) 834-3296 (CHEMTREC) 1-800-424-9300

FOR PRODUCT INFORMATION AND TECHNICAL ASSISTANCE CALL: 1-800-443-9966

FOR A FAXED COPY OF AN MSDS DIAL: 1-800-298-4007

FOR AN MSDS OR ASSISTANCE WITH AN MSDS, DIRECT INQUIRIES TO THE ADDRESS BELOW OR CALL:
MARKETING TECHNICAL SERVICES
EXXON COMPANY, U.S.A.
ROOM 2344
P. O. BOX 2180
HOUSTON, TX 77252-2180
(713) 656-5949

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS	CAS NO. OF COMPONENTS	APPROXIMATE CONCENTRATION
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	Greater than 99%
or	or	
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	
Proprietary additives	Mixture	Less than 1%

This product, as manufactured by Exxon, does not contain polychlorinated biphenyls (PCB's).

All components of this product are listed on the U.S. TSCA inventory.

See Section E for Health and Hazard Information.

See Section H for additional Environmental Information.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Health	Flammability	Reactivity	BASIS
1	1	0	Recommended by Exxon

EXPOSURE LIMIT FOR TOTAL PRODUCT
5 mg/m3 for oil mist (aerosol) for an 8-hour workday

BASIS
OSHA Regulation 29 CFR 1910.1000 and recommended by the American Conference of Governmental Industrial Hygienists (ACGIH). ACGIH states that the air is

to be sampled by a method that does not collect vapor; in addition, it lists a 10 mg/m3 STEL.

C. PRIMARY ROUTES OF ENTRY AND EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT
If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

SKIN
In case of skin contact, remove any contaminated clothing and wash skin with soap and water. Launder or dry-clean clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

INHALATION
Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen, if available. If overexposed to oil mist, remove from further exposure until excessive oil mist condition subsides.

INGESTION
If ingested, DO NOT induce vomiting; call a physician immediately.

D. FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM)
208°C (406°F)
ASTM D 92, Cleveland Open Cup

AUTOIGNITION TEMPERATURE
Greater than 260°C (500°F)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION

Health	Flammability	Reactivity	BASIS
1	1	0	Recommended by Exxon

HANDLING PRECAUTIONS
Use product with caution around heat, sparks, pilot lights, static electricity, and open flame.

FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)
Estimated values: Lower Flammable Limit 0.9% Upper Flammable Limit 7%

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES
Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Tenth Edition (1991):

Use water spray, dry chemical, foam or carbon dioxide to extinguish the fire. Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS
Fumes, smoke, carbon monoxide, sulfur oxides, phosphorus oxides, metal oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

"EMPTY" CONTAINER WARNING
"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Do not attempt to refill or clean containers since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

E. HEALTH AND HAZARD INFORMATION

VARIABILITY AMONG INDIVIDUALS
Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure)
Prolonged or repeated skin contact may cause skin irritation.

NATURE OF HAZARD AND TOXICITY INFORMATION
Repeated and prolonged overexposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and increased incidence of infection.

In accordance with the current OSHA Hazard Communication Standard criteria, this product does not require a cancer hazard warning. This is because the product is formulated from base stocks which are severely hydrotreated, severely solvent extracted, and/or processed by mild hydrotreatment and extraction. Alternatively, it may consist of components not otherwise affected by IARC criteria, such as atmospheric distillates or synthetically derived materials, and as such is not characterized by current IARC classification criteria.

Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Product contacting the eyes may cause eye irritation.

Product has a low order of acute oral and dermal toxicity, but minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

This product is judged to have an acute oral LD50 (rat) greater than 5 g/kg of body weight, and an acute dermal LD50 (rabbit) greater than 3.16 g/kg of body weight.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE
None recognized

F. PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE
IBP Approximately 293°C (560°F)
by ASTM D 2887

SPECIFIC GRAVITY (15.6°C/15.6°C)
0.88

MOLECULAR WEIGHT
Not determined

pH
Essentially neutral

POUR, CONGEALING OR MELTING POINT
-30°C (-22°F)
Pour Point by ASTM D 97

VISCOSITY
44 cSt @ 40°C

VAPOR PRESSURE
Less than 0.01 mm Hg @ 20°C

VAPOR DENSITY (AIR = 1)
Greater than 5

PERCENT VOLATILE BY VOLUME
Negligible from open container in 4 hours @ 38°C (100°F)

EVAPORATION RATE @ 1 ATM. AND 25°C (77°F) (n-BUTYL ACETATE = 1)
Less than 0.01

SOLUBILITY IN WATER @ 1 ATM. AND 25°C (77°F)
Negligible; less than 0.1%

G. REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc., as this presents a serious explosion hazard.

H. ENVIRONMENTAL INFORMATION

CLEAN WATER ACT / OIL POLLUTION ACT
This product may be classified as an oil under Section 311 of the Clean Water Act, and under the Oil Pollution Act. Discharges or spills into or leading to surface waters that cause a sheen must be reported to the National Response Center (1-800-424-8802).

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Open all windows and doors. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas.

Assure conformity with applicable governmental regulations.

THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES:

THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355 (SARA Sections 301-304)
No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 313)
No toxic chemical is present greater than 1% or 0.1% (carcinogen).

HAZARDOUS CHEMICAL REPORTING, EPA REGULATION 40 CFR 370 (SARA Sections 311-312)
EPA Hazard Classification Code: Not Applicable

TOXIC SUBSTANCE CONTROL ACT
This product contains the following TSCA 12b reportable chemical substance(s):
2-Ethylhexanol CAS # 104-76-7

I. PROTECTION AND PRECAUTIONS

VENTILATION
Use local exhaust to capture vapor, mists or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. No smoking, or use of flame or other ignition sources.

RESPIRATORY PROTECTION
Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

PROTECTIVE GLOVES
Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION
Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT
Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing, which could result in prolonged or repeated skin contact.

WORK PRACTICES / ENGINEERING CONTROLS
To prevent fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system in accordance with (THE) National Fire Protection Association PUBLICATIONS.

Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants.

In order to prevent fire or explosion hazards, use appropriate equipment.

Information on electrical equipment appropriate for use with this product may be found in the latest edition of the National Electrical Code (NFPA-70). This document is available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.

PERSONAL HYGIENE
Minimize breathing vapor, mist or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before re-use. Remove contaminated shoes and thoroughly clean before re-use; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

J. TRANSPORTATION AND OSHA RELATED LABEL INFORMATION

TRANSPORTATION INCIDENT INFORMATION
For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents.

U.S. DOT HAZARDOUS MATERIALS SHIPPING DESCRIPTION
Not regulated

OSHA REQUIRED LABEL INFORMATION

In compliance with hazard and right-to-know requirements, where applicable OSHA Hazard Warnings may be found on the label, bill of lading or invoice accompanying this shipment.

Note: Product label may contain non-OSHA related information also.

The health and safety information presented herein must be used in conjunction with the pertinent standards for training, work practices and facilities design established by OSHA, NIOSH, NFPA, API, NEC, NSC, UNDERWRITERS, BUREAU OF MINES, and similar organizations.

The information and recommendations contained herein are, to the best of Exxon's knowledge and belief, accurate and reliable as of the date issued. Exxon does not warrant or guarantee their accuracy or reliability, and Exxon shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.

The Environmental Information included under Section H hereof as well as the Hazardous Materials Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by Exxon Company, U.S.A. in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with Exxon's interpretation of the available data.

Material Safety Data Sheet

March 2, 1998

BOD fill Solution
Company YSI
3/2/1998

YSI Incorporated
1725 Brannum Lane
Yellow Springs, OH 45387
USA

13-299-16
YSI-5775

Information and Emergency Phone: 1-800-765-4974

SECTION 1 - MATERIAL IDENTIFICATION

PRODUCT NAME: YSI 5775 O2 Probe Solution FORMULA: KCl
Chemical Type:: Inorganic halogen salt, with wetting agent.
CAS No. 7447-40-7

SECTION 2 - HAZARDOUS / IMPORTANT INGREDIENTS

Chemical	CAS No.	PERCENT	PEL/TLV	CARCINOGEN (OSHA, NTP, IARC)
Potassium Chloride	7447- 40 - 7	99.99%	none	no
Kodak Photo-flo 200	n/ap	<0.1%	none	no

SECTION 3 - CHEMICAL AND PHYSICAL PROPERTIES

Appearance: white powder
Odor: none
pH: neutral
Water Solubility: infinite
Evaporation Rate: n/av

Boiling Point: n/av
Melting Point: 1418 °F (770°C)
Specific Gravity: 1.984
Vapor Pressure: n/ap
Vapor Density: n/ap

SECTION 4 - FIRE AND EXPLOSION HAZARDS

Flash Point: none
Explosive Limits: none
Extinguishing Media: n/ap
Material is not combustible.

SECTION 5 - REACTIVITY INFORMATION

Stable: X Unstable: Precautions: none
Hazardous Polymerization: Occurs: Does Not Occur: X
Incompatibility: strong acids and oxidizing agents.
Hazardous Decomposition Products: n/av

Post-it® Fax Note 7671	Date 12-14-98	# of pages ▶
To Mike	From Kathy	
Co./Dept. Cisney	Co. YSI, Inc	
Phone #	Phone #	
Fax # 412 491 8098	Fax #	

5775, 5776, 2340

SECTION 6 - HEALTH HAZARDS / PROTECTIVE MEASURES / FIRST AID

Inhalation:
Possible mild irritation from dusts.
Use a NIOSH approved respirator for dusts. Get supplier recommendations. Provide adequate ventilation. Eliminate dusty conditions.
Remove to fresh air and provide artificial respiration if needed.

Skin:
Possible irritation from dusts.
Wear dust-proof gloves and other body protection as needed.
Wash exposed areas with soap and water for 15 minutes. Remove contaminated clothing, and wash before re-using.

Eyes:
Possible irritation from dust.
Wear dust barrier goggles. Eliminate dusty conditions.
Flush with water for 15 minutes.

Ingestion
No effects expected from normal use and minor amounts ingested. Large amounts, over 1 tablespoon, can cause digestive system upset s.
Avoid mouth breathing. Use dust barrier nose cover. Reduce dusting.
Avoid swallowing. Spit out.. Drink large amounts of water. Induce vomiting if person is conscious. Otherwise, and if effects persist, get medical attention.

(No chronic effects reported)

IN ALL CASES: GET MEDICAL ATTENTION IF EFFECTS PERSIST.

Most likely routes of entry: skin, eyes, ingestion.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Spills and Leaks: Flush to sewer or ground.

Storage and Handling: Keep containers closed. Discard any material that may be contaminated.

Waste Disposal: In accordance with applicable regulations for wastes. Is not a RCRA hazardous waste as of this date.

Empty Containers: Rinse. Disposal as appropriate for glass and plastic containers.

SECTION 8 - REGULATORY INFORMATION

DOT: Not regulated.,
SARA Title III , S.313, Form R: Nothing reportable.

The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control, and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his own determination of the suitability of the material for his particular use.

First Source Worldwide, LLC
1215 Doctors Drive, Suite F
Neenah, WI 54956-4069

Ph. (920) 886-0444 Fax (920) 886-1424

MATERIAL SAFTEY DATA SHEET

I. Product Identification

Trade Name: Olive Brown G
Chemical Name: N/A
Chemical Family: N/A
Color Index #: Acid Brown 98
Last Revision Date: 7/13/01
Preparer: Dale Clark – Phone: (920) 886-0444

II. Hazardous Components

Component	Percent	T.L.V.
N/A		

III. Physical Data

Boiling Point:	N/A	Solub. In Water:	Solub
Vapor Pressure:	N/A	Odor:	None
Vapor Density:	N/A	Appearance:	Powder
Volatility:	N/A	Specific Grav:	N/A
Freeze Point:	N/A	Evap. Rate:	N/D
Melting Point:	N/A	pH of Product:	N/A

IV. Fire and Explosion Data

Flash Point: N/A
Flammable Limits: N/A
In Case of Fire: Dry chemical, CO2, water spray or regular foam. Move containers from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out.
Fire-Fighting Procedures: Use self-contained breathing apparatus.
Fire and Explosion Hazards: In case of fire or explosion, keep unnecessary people away. Isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering.

Apr 16 04 11:58a First Source worldwideLLC (920) 886-1424 p.2

V. Reactivity Data

Stability:	**Stable**
Conditions to avoid:	**None known**
Incompatibility:	**Strong oxidizing and reducing agents.**
Hazardous Decomposition Products:	**None.**
Hazardous Polymerization:	**Will not occur under normal conditions.**
Conditions to avoid:	**None known.**

VI. Health Hazard Data

Threshold Limit Value:	**Not established. Contact may cause eye and skin irritation. Dust may irritate the respiratory tract.**
Hazard Warnings:	**D.O.T. non-regulated substance: This product in its present state poses no threat to human health or the environment.**

VII. Emergency and First Aid Procedures

PROCEDURES:

Eyes:	**Flush eyes with water for at least 15 minutes.**
Skin:	**Wash thoroughly with soap and water. If irritation occurs get medical attention. If clothing is contaminated, remove and wash before reuse.**
Inhalation:	**Remove to fresh air. Get medical attention.**
Ingestion:	**If conscious, give plenty of water to drink. Get medical attention. If unconscious, do not give anything to drink. Get immediate medical attention.**

VIII. Special Protection Information

Respiratory:	**Niosh approved respirator whenever exposure to dust or vapor exceeds the TLV of any items identified under the hazardous component section.**
Skin:	**Rubber gloves, apron, coverall to minimize skin contact.**
Eyes:	**Goggles.**
Ventilation:	**Local exhaust.**
Other Protection:	**Deluge safety shower and eye wash station should be located near work area.**

IX. Spill or Leak Procedures:

Steps to be Taken: Do not touch or walk through spilled material. Stop leak if you can do it without risk. Take up with sand or other non-combustible absorbent materials and place into containers for later disposal. Scrub spill area with detergent. Flush with copious amount of water.

Waste Disposal Method: Waste material may be dumped or incinerated under conditions which meet all federal, state and local environmental control regulations. The discarded product is not a hazardous waste under RCRA 40 CFR 261.

Container Reuse Method: Containers should not be reused without professional cleaning and reconditioning.

X. Precaution Measures

29 CFR 1910. 1200 and state right to know laws may designate this product as a nuisance dust. Please refer to section XII of Material Safety Data Sheet for handling instructions.

XI. Transportation Information

DOT Hazard Class:	Non-hazardous
Proper Shipping Name:	Non-hazardous material
DOT Identification #:	
Commodity Class:	Dye Compound, N.O.I.
R / Q:	N/A
R / Q Lbs:	

XII. Regulatory Information

S.A.R.A.: None

T.S.C.A.: In compliance

O.S.H.A. Hazard Classification:

Acute: YES Chronic: NO Flammable: NO

Reactive: NO Oxidizer: NO

	Health	Flammability	Reactivity	Personal Protection
H.M.I.S. Classification:	1	1	0	E
N.F.P.A. Codes	1	1	0	N

XIII. State Right to Know Laws

HAZARDOUS MATERIALS

Ingredients	State Information

NONHAZARDOUS MATERIALS

Ingredients	State Information

XIV. Other Information

All information and data appearing on this M.S.D.S. are believed to be reliable and accurate. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by First Source Worldwide, LLC. User assumes all risk and responsibility.

Apr 16 04 11:59a First Source worldwideLLC (920) 886-1424 p.5

First Source Worldwide, LLC
1215 Doctors Drive, Suite F
Neenah, WI 54956-4069

Ph. (920) 886-0444 Fax (920) 886-1424

MATERIAL SAFTEY DATA SHEET

I. Product Identification

Trade Name: Olive Brown G
Chemical Name: N/A
Chemical Family: N/A
Color Index #: Acid Brown 98
Last Revision Date: 7/13/01
Preparer: Dale Clark – Phone: (920) 886-0444

II. Hazardous Components

Component	Percent	T.L.V.
N/A		

III. Physical Data

Boiling Point:	N/A	Solub. In Water:	Solub
Vapor Pressure:	N/A	Odor:	None
Vapor Density:	N/A	Appearance:	Powder
Volatility:	N/A	Specific Grav:	N/A
Freeze Point:	N/A	Evap. Rate:	N/D
Melting Point:	N/A	pH of Product:	N/A

IV. Fire and Explosion Data

Flash Point: N/A
Flammable Limits: N/A
In Case of Fire: Dry chemical, CO2, water spray or regular foam. Move containers from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out.
Fire-Fighting Procedures: Use self-contained breathing apparatus.
Fire and Explosion Hazards: In case of fire or explosion, keep unnecessary people away. Isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering.

Apr 16 04 11:58a First Source worldwideLLC (920) 886-1424 p.2

WWW_104(e)_017153

V. Reactivity Data

Stability:	**Stable**
Conditions to avoid:	**None known**
Incompatibility:	**Strong oxidizing and reducing agents.**
Hazardous Decomposition Products:	**None.**
Hazardous Polymerization:	**Will not occur under normal conditions.**
Conditions to avoid:	**None known.**

VI. Health Hazard Data

Threshold Limit Value:	**Not established. Contact may cause eye and skin irritation. Dust may irritate the respiratory tract.**
Hazard Warnings:	**D.O.T. non-regulated substance: This product in its present state poses no threat to human health or the environment.**

VII. Emergency and First Aid Procedures

PROCEDURES:

Eyes:	**Flush eyes with water for at least 15 minutes.**
Skin:	**Wash thoroughly with soap and water. If irritation occurs get medical attention. If clothing is contaminated, remove and wash before reuse.**
Inhalation:	**Remove to fresh air. Get medical attention.**
Ingestion:	**If conscious, give plenty of water to drink. Get medical attention. If unconscious, do not give anything to drink. Get immediate medical attention.**

VIII. Special Protection Information

Respiratory:	**Niosh approved respirator whenever exposure to dust or vapor exceeds the TLV of any items identified under the hazardous component section.**
Skin:	**Rubber gloves, apron, coverall to minimize skin contact.**
Eyes:	**Goggles.**
Ventilation:	**Local exhaust.**
Other Protection:	**Deluge safety shower and eye wash station should be located near work area.**

XIII. State Right to Know Laws

HAZARDOUS MATERIALS

Ingredients	State Information

NONHAZARDOUS MATERIALS

Ingredients	State Information

XIV. Other Information

All information and data appearing on this M.S.D.S. are believed to be reliable and accurate. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by First Source Worldwide, LLC. User assumes all risk and responsibility.

Apr 16 04 11:59a First Source worldwideLLC (920) 886-1424 p.5

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Shee
Opca PU Matt Top 241

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: Opca PU Matt Top 241
Common Name: Waterborne Polyurethane

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH: 1
FLAMMABILITY: 1
REACTIVITY: 0

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
N-Methyl-2-pyrrolidone,	872-50-4	2-3 %	TLV: 100 ppm
Crystalline Silica	7631-86-9	4-5 %	TLV: 20 ppm

N.E. = Not Established

WWW_104(e)_017156

HODGSON
Process Chemicals Inc., Leather

Opca PU Matt Top 241

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:
Temporary irritation of nose and throat may occur. Exposure above the TLV may also cause constricting sensation of the larynx and difficulty in breathing.

Eye:
Temporary irritation or redness may occur. Liquid may cause chemical burns to the cornea.

Skin:
Temporary irritation of the skin may occur in some individuals. Prolonged skin contact causes irritation, redness and defatting of the skin.

Ingestion:
This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning. May cause chemical burns of the mouth, throat and esophagus.

ACUTE EFFECTS:
Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:
Inhaling high concentrations may cause damage to the liver, kidney, and heart and may cause tracheitis, bronchitis, pneumonitis, and pulmonary edema.

SECTION 4 - First Aid Measures

Eye and Skin Contact:
Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:
Remove to fresh air. If symptoms persist contact a physician.

Ingestion:
This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Wash mouth out with water. Drink plenty of water. Contact a physician immediately.

HODGSON
Process Chemicals Inc., Leather

Opca PU Matt Top 241

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: >200 °F(93°C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases. Flashback along vapor trail may occur. This material may be ignited by heat, sparks, flame or static electricity.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Keep container closed tightly when not in use.
Store under cool, dry conditions.

HODGSON
Process Chemicals Inc., Leather

Opca PU Matt Top 241

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2. Wear NIOSH approved respirator to prevent overexposure.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	212 °F, water	**Density :**	8.6 lb/gal
Flash Point :	>200 °F(93°C)	**Evaporation Rate :**	Slower than 1
Specific Gravity : (Water=1)	1.03	**% Volatiles :** (by Weight)	>77 %
pH :	Not applicable	**Vapor Pressure :**	Not applicable
Solubility in Water :	Not applicable	**Viscosity :**	Not Available

Appearance and Odor :
Liquid with slight urethane odor.

HODGSON
Process Chemicals Inc., Leather

Opca PU Matt Top 241

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
Strong mineral acids and oxidizers.

Hazardous Decomposition Products :
Burning can produce nitrogen oxides, carbon monoxide, and carbon dioxide.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:
No testing conducted.

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:
Hazard Class: Non Regulated
Shipping Name:
Harmonized Tariff Code:

Dec. 5/4/99

HODGSON
Process Chemicals Inc., Leather

Opca PU Matt Top 241

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the Occupational Safety and Health Administration (OSHA), by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP).

State Regulations :

Massachusetts Right to Know:
- N-Methyl-2-pyrrolidone (cas 872-50-4) 1.5 %
- Triethylamine (cas 121-44-8) 0.8 %

Pennsylvania Hazardous Substance List:
- N-Methyl-2-pyrrolidone (cas 872-50-4) 1.5 %
- Triethylamine (cas 121-44-8) 0.8 %

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N-Methyl-2-pyrrolidone	872-50-4	1.5 %	Listed	n/a	n/a	n/a

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 – Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
01/18/99	Updated health and regulatory information.

Prepared by: Sharon Mathis

Spray for Weed-Zap

MATERIAL SAFETY DATA SHEET

AUG 3 1 1992
Dept. 21 - Exp
01-000584
N/H

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME..... YORKSHIRE NACHEM, INC., 1099 HINGHAM ST. ROCKLAND, MA 02370
PHONE NUMBER..... 617 871-4440
EMERGENCY PHONE NUMBER... 1 800 424-9300 (CHEMTREC)
EFFECTIVE DATE..... MAY 1992
REVISED DATE.....
CHEMICAL NAME..... 2826 OPCALIN OIL 30/N
TRADE NAME..... 2826 OPCALIN OIL 30/N
CHEMICAL FAMILY..... MIXTURE OF WHITE MINERAL OIL WITH ANTISTATIC AND NON-IONIC EMULSIFYING AGENTS
CHEMICAL FORMULA.....
CAS NUMBER.....

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	HAZARDOUS %	TLV (Units)	PROD. CAS #

SECTION III - PHYSICAL DATA

BOILING Point(F)..... NOT AVAILABLE
FREEZING POINT (F)..... NOT AVAILABLE
VOLATILITY/VOL(%)..... NOT AVAILABLE
MELTING POINT..... NOT AVAILABLE
VAPOR PRESSURE (mm Hg)... NOT AVAILABLE
VAPOR DENSITY (Air=1).... NOT AVAILABLE
SOLUBILITY IN H2O..... MISCIBLE
APPEARANCE/ODOR..... LIQUID, NO ODOR
SPECIFIC GRAVITY (H2O=1). NOT AVAILABLE
EVAPORATION RATE..... NOT AVAILABLE
ACIDITY..... 6.6 - 7.0 AT 100 g/l WATER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT..... NOT APPLICABLE (NOT COMBUSTIBLE AT 55 C)
FLAMMABLE LIMITS..... NOT APPLICABLE
EXTINGUISH MEDIA..... Water, CO_2, dry chemical
UNUSUAL FIRE HAZARD..... MATERIAL MAY DECOMPOSE IF INVOLVED IN A FIRE RELEASING IRRITANT FUMES

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE....
OVER EXPOSURE EFFECTS.... AFTER CAREFUL CONSIDERATION OF TOXICOLOGICAL DATA FOR ANALOGOUS PRODUCTS, IT IS CONCLUDED THAT OPCALIN OIL 30/N WILL NOT BE IRRITATING TO SKIN OR EYES, AND THAT THE ACUTE ORAL TOXICITY VALUE (LD 50 ORAL RAT) WILL BE GREATER THAN 2000 MG/KG

MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME..... YORKSHIRE NACHEM, INC., 1099 HINGHAM ST.
ROCKLAND, MA 02370
PHONE NUMBER..... 617 871-4440
EMERGENCY PHONE NUMBER... 1 800 424-9300 (CHEMTREC)
EFFECTIVE DATE..... MAY 1992
REVISED DATE.....
CHEMICAL NAME..... 2826 OPCALIN OIL 30/N
TRADE NAME..... 2826 OPCALIN OIL 30/N
CHEMICAL FAMILY..... MIXTURE OF WHITE MINERAL OIL WITH ANTISTATIC AND NON-IONIC EMULSIFYING AGENTS
CHEMICAL FORMULA.....
CAS NUMBER.....

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	HAZARDOUS %	TLV (Units)	PROD. CAS #

SECTION III - PHYSICAL DATA

BOILING Point(F)..... NOT AVAILABLE
FREEZING POINT (F)..... NOT AVAILABLE
VOLATILITY/VOL(%)..... NOT AVAILABLE
MELTING POINT..... NOT AVAILABLE
VAPOR PRESSURE (mm Hg)... NOT AVAILABLE
VAPOR DENSITY (Air=1).... NOT AVAILABLE
SOLUBILITY IN H2O..... MISCIBLE
APPEARANCE/ODOR..... LIQUID, NO ODOR
SPECIFIC GRAVITY (H2O=1). NOT AVAILABLE
EVAPORATION RATE..... NOT AVAILABLE
ACIDITY..... 6.6 - 7.0 AT 100 g/l WATER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT..... NOT APPLICABLE (NOT COMBUSTIBLE AT 55 C)
FLAMMABLE LIMITS..... NOT APPLICABLE
EXTINGUISH MEDIA..... Water, CO_2, dry chemical
UNUSUAL FIRE HAZARD..... MATERIAL MAY DECOMPOSE IF INVOLVED IN A FIRE RELEASING IRRITANT FUMES

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE....
OVER EXPOSURE EFFECTS.... AFTER CAREFUL CONSIDERATION OF TOXICOLOGICAL DATA FOR ANALOGOUS PRODUCTS, IT IS CONCLUDED THAT OPCALIN OIL 30/N WILL NOT BE IRRITATING TO SKIN OR EYES, AND THAT THE ACUTE ORAL TOXICITY VALUE (LD 50 ORAL RAT) WILL BE GREATER THAN 2000 MG/KG

For use with Scotchgard

MATERIAL SAFETY DATA SHEET

AUG 3 1 1992

Dept 21 - Exp M/1

01-000583

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME..... YORKSHIRE NACHEM INC., 1099 HINGHAM ST., ROCKLAND, MA 02370
PHONE NUMBER..... 617 871-4440
EMERGENCY PHONE NUMBER... 1 800 424-9300 (CHEMTREC)
EFFECTIVE DATE..... AUGUST 1992
REVISED DATE.....
CHEMICAL NAME..... 2678 OPCALIN WAX 203
TRADE NAME..... 2678 OPCALIN WAX 203
CHEMICAL FAMILY..... WAX EMULSION
CHEMICAL FORMULA..... AQUEOUS EMULSION OF NATURAL AND SYNTHETIC WAXES
CAS NUMBER.....

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	HAZARDOUS %	TLV (Units)	PROD. CAS #

SECTION III - PHYSICAL DATA

BOILING Point(F)..... NOT AVAILABLE
FREEZING POINT (F)..... NOT AVAILABLE
VOLATILITY/VOL(%)..... NOT AVAILABLE
MELTING POINT..... NOT AVAILABLE
VAPOR PRESSURE (mm Hg)... NOT AVAILABLE
VAPOR DENSITY (Air=1).... NOT AVAILABLE
SOLUBILITY IN H2O..... MISCIBLE
APPEARANCE/ODOR..... IVORY LIQUID, NO ODOR
SPECIFIC GRAVITY (H2O=1). NOT AVAILABLE
EVAPORATION RATE..... NOT AVAILABLE
ACIDITY..... 8.6 - 9.0 AT 100 g/l WATER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT..... NOT APPLICABLE
FLAMMABLE LIMITS..... NOT APPLICABLE
EXTINGUISH MEDIA..... WATER SPRAY, FOG OR FOAM
UNUSUAL FIRE HAZARD..... NONE

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE.... ACUTE ORAL TOXICITY (LD50 ORAL RAT) WILL BE GREATER THAN 2000 MG/KG
OVER EXPOSURE EFFECTS.... INHALATION: AVOID BREATHING VAPORS OR FUMES IN CONTAINER HEADSPACE.
EYES: WILL NOT IRRITATE EYES.
SKIN: WILL NOT IRRITATE SKIN.
INGESTION: MAY BE HARMFUL IF SWALLOWED; SEEK IMMEDIATE MEDICAL ATTENTION.

FIRST AID PROCEDURES..... INHALATION: REMOVE TO FRESH AIR.
EYES: FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.
SKIN: WASH WITH SOAP AND WATER.
INGESTION: SEEK IMMEDIATE MEDICAL ATTENTION. AVOID CONTACT WITH SKIN AND EYES.

SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY..... STABLE
CONDITIONS TO AVOID..... NONE
INCOMPATIBLE MATERIALS... NONE
DECOMPOSITION PRODUCTS... MAY DECOMPOSE IF INVOLVED IN A FIRE RELEASING IRRITANT FUMES
HAZARDOUS POLYMERIZATION. WILL NOT OCCUR
POLYMERIZATION AVOID..... NONE

SECTION VII - SPILL OR LEAK PROCEDURE

FOR SPILL ..... ABSORB ON SAND OR EARTH AND PLACE IN CONTAINER FOR SAFE DISPOSAL. FLUSH AWAY REMAINING TRACES WITH PLENTY OF WATER.
WASTE DISPOSAL METHOD.... DISPOSE OF IN ACCORDANCE WITH ALL STATE, LOCAL AND FEDERAL REGULATIONS

SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION... NIOSH/MSHA APPROVED RESPIRATOR IS RECOMMENDED
VENTILATION..... LOCAL OR MECHANICAL EXHAUST REQUIRED
PROTECTIVE GLOVES..... WEAR CHEMICAL RESISTANT GLOVES
EYE PROTECTION..... WEAR SAFETY GLASSES OR GOGGLES
OTHER PROTECTIVE EQUIPMENT..... EMERGENCY EYEWASH AND SAFETY SHOWER SHOULD BE READILY AVAILABLE
HANDLING AND STORAGE..... STORE IN COOL CONDITIONS

SECTION IX - SPECIAL PRECAUTIONS

HAZARD CLASS.....
DOT SHIPPING NAME.....
UN NUMBER.....
PACKAGING SIZE.....

FOOT NOTES

REFERENCES

MATERIAL SAFETY DATA SHEET

THE INFORMATION CONTAINED HEREIN IS BASED ON OUR EXPERIENCE AND TECHNICAL DATA. CONSIDERING THERE ARE MANY FACTORS BEYOND OUR KNOWLEDGE AND CONTROL, WE CANNOT ACCEPT LIABILITY FOR ANY LOSS, INJURY OR DAMAGE RESULTING FROM RELIANCE UPON SUCH INFORMATION.

K-1201

R-0600-C

R-0600

MATERIAL SAFETY DATA SHEET

MANUFACTURER: TAYLOR TECHNOLOGIES, INC
31 LOVETON CIRCLE
SPARKS, MD 21152
TELEPHONE: 410-472-4340

1.PRODUCT IDENTIFICATION
CATALOG NO.: R-0600
PRODUCT NAME: Orthotolidine
CHEMICAL FAMILY: Acidic aromatic halogen solution

2.INGREDIENTS

INGREDIENT	CAS NO.	%	NATURE OF HAZARD
*Orthotolidine dihydrochloride	612-82-8	<1	Suspect carcinogen
*Hydrochloric acid	7647-01-0	<10	Corrosive acid
Deionized water	7732-18-5	to 100	None

This chemical is subject to the reporting requirements of SARA Title III ection 313 and 40 CFR 372.

3.PHYSICAL/CHEMICAL CHARACTERISTICS
STATE: Liquid APPEARANCE: Clear, slight yellow ODOR: None
BOILING PT (F): 212 pH: .01 SPECIFIC GRAVITY: 1.03
VAPOR PRESSURE (mm Hg): 17 VAPOR DENSITY (AIR=1): .6
PERCENT VOLATILE BY VOLUME: 99 SOLUBILITY IN WATER: Soluble

.FIRE, EXPLOSION HAZARD AND REACTIVITY DATA
FLASH PT: NA METHOD: NA
FLAMMABLE LIMITS: LEL: NA UEL: NA
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray or foam
SPECIAL PROCEDURES: Wear self-contained (positive pressure if available) breathing apparatus and special protective clothing
FIRE/EXPLOSION HAZARDS AND HAZARDOUS DECOMPOSITION PRODUCTS: Contact with metals may produce hydrogen gas. May emit toxic fumes of chlorine, hydrogen chloride.
NFPA CODE: Health: 3 Flammability: 0 Reactivity: 0 Specific: CORR
CONDITIONS TO AVOID: Extreme heat, temperatures. Contact with metals, alkalis, strong oxidizers.

.HEALTH HAZARD DATA
INGREDIENT: Orthotolidine dihydrochloride
TOXICITY: LD50(orl-rat): 404 mg/kg
PEL: NE
STEL: NE TLV: 2 ppm (skin)

INGREDIENT: Hydrochloric acid
TOXICITY: LD50(orl-rbt): 900 mg/kg LC50(ihl-rat): 3124 ppm/1H
PEL: 7 mg/m3 (ceiling) TLV: 7 mg/m3 (ceiling)
STEL: NE

5.HEALTH HAZARD DATA - continued

ROUTE(S) OF ENTRY: Inhalation X Ingestion X Skin X

TARGET ORGAN(S): Eyes, skin, respiratory tract

CARCINOGENICITY: NTP Yes IARC Yes OSHA No

HEALTH HAZARDS AND SYMPTOMS OF EXPOSURE:

EYES: Corrosive. Contact may cause severe burns.

SKIN: Corrosive. Contact may cause severe burns.

INGESTION: Corrosive. May cause severe gastrointestinal irritation, cyanosis, headache, dizziness, burns of mouth, esophagus and stomach.

INHALATION: Irritant

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, skin, and respiratory conditions

6.PRECAUTIONARY MEASURES

PROTECTIVE EQUIPMENT: Rubber gloves, safety glasses, lab coat, rubber apron, adequate ventilation.

HANDLING: Avoid contact with eyes, skin, and clothing. Avoid breathing chemical. Wash thoroughly after handling.

STORAGE: Cool, dry, well-ventilated area. Avoid direct sunlight.

7.EMERGENCY AND FIRST AID PROCEDURES

EYE AND SKIN CONTACT: Immediately flush eyes with water for 15 minutes. Call physician. Wash skin thoroughly with baking soda, soap and water.

INGESTION: Give large amounts of water or large amounts of water with milk of magnesia. Call physician. DO NOT INDUCE VOMITING.

INHALATION: Remove to fresh air. Call physician.

8.SPILL AND DISPOSAL PROCEDURES

SPILL OR RELEASE: Neutralize with soda ash. Absorb with vermiculite or other inert material. Containerize for later disposal.

DISPOSAL: Incineration or other method to comply with all local, state, and federal regulations.

NA = Not applicable
ND = Not determined
NE = Not established

This Material Safety Data Sheet has been prepared in accordance with 29 CFR Part 1910.1200 and contains information believed to be accurate and complete at the date of preparation. However, no warranty is expressed or implied. Advice given under "Spill and Disposal Procedures" assumes compliance with federal, state, and local regulations regarding the disposal of hazardous waste.

DATE PREPARED: May 1996

New

RHONE-POULENC PRODUCT NAME(S)
OXALIC ACID

PRODUCT CODE(S)
2832326-MT
2832327,
S-2832327-GM

RHONE-POULENC INC.
CN 5266
Princeton, NJ 08543-5266
(908) 297-0100

Emergency Phone Number (24 Hours)
CHEMTREC 800-424-9300

Date Prepared
11/27/90

Supercedes
2/16/89

MSDS Number
00816-01.ORG

Section 1. PRODUCT IDENTIFICATION

Synonym(s): Oxalic acid, dihydrate; ethanedioic acid, dihydrate

Chemical Name(s) of Primary Component(s)	CAS Number(s)	Chemical Formula
Oxalic acid, dihydrate	6153-56-6	$(COOH)_2$, $2H_2O$

Section 2. INGREDIENTS/SUMMARY OF HAZARDS

Ingredient(s)	CAS Number(s)	OSHA Hazardous (H)/ Non-Hazardous (NH)	Percent
Oxalic acid, dihydrate	6153-56-6	H	>99.5

SARA Title III Hazard Classification:
(X) Immediate (Acute) Health Hazard
( ) Delayed (Chronic) Health Hazard
( ) Fire Hazard
( ) Sudden Release of Pressure Hazard
( ) Reactive Hazard

WARNING STATEMENTS:

TOXIC BY INGESTION. CORROSIVE TO EYES AND MUCOUS MEMBRANES. SEVERE SKIN IRRITANT. CAN CAUSE KIDNEY DAMAGE. CONVULSIONS, COMA AND DEATH FROM CARDIOVASCULAR COLLAPSE MAY OCCUR.

Section 3. PHYSICAL DATA

Melting Point (°F): 214 (loses water and starts to sublime); sublimes best at 314; anhydrous oxalic acid starts to decompose at 372

Boiling Point (°F): Not applicable

Section 3. PHYSICAL DATA (Continued)

Vapor Pressure (mmHg):	0.35 at 0°C; 15.58 at 50°C
Vapor Density (air = 1):	Not available
Solubility in Water:	Slightly soluble (13.8 g/100 g @ 20°C; 77.0 g/100 g @ 58°C)
Specific Gravity:	1.653 @ 20°C
Evaporation Rate (butyl acetate = 1):	Not available
% Volatile by Volume:	Not available
Appearance/Odor:	White to off-white solid (powder);very slight odor

Section 4. FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F)/Method: Greater than 200

Flammable Limits: LFL Not applicable UFL Not applicable

Extinguishing Media:
(X) Water Fog
(X) Dry Chemical
( ) Other (specify):
(X) Foam
(X) CO_2

Special Fire Fighting Procedures:
Wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Cool containers exposed to fire with water.

Unusual Fire and Explosion Hazards:
Combustion may produce irritants and toxic gases, including formic acid, and oxides of carbon.

Section 5. REACTIVITY DATA

Stability: ( ) Unstable (X) Stable

Conditions to avoid: Avoid heat and open flame. Avoid moisture: product is hygroscopic.

RHONE-POULENC PRODUCT NAME(S)
OXALIC ACID

Section 5. REACTIVITY DATA (Continued)

Incompatibility (materials to avoid):

( ) Water (X) Strong acids (X) Strong bases
( ) Reducing agents (X) Strong oxidizing materials ( ) Combustible materials
(X) Other (specify): Silver. Avoid contact with metals.

Hazardous Decomposition Products or Byproducts:
On combustion, oxides of carbon and formic acid are emitted.

Hazardous polymerization: ( ) May occur (X) Will not occur

Conditions to avoid: Not applicable

Section 6. HEALTH HAZARD DATA/FIRST AID PROCEDURES

EXPOSURE LIMITS IN AIR

Chemical Name(s)	ACGIH/OSHA (TWA)	ACGIH/OSHA (STEL)	
Oxalic acid	1 mg/m^3	2 mg/m^3	(4)

EFFECTS OF SINGLE OVEREXPOSURE

Swallowing: TOXIC BY INGESTION. Acute oral/rat LD50: 375 mg/kg. (4)

Skin Absorption: LOW ACUTE DERMAL TOXICITY. Acute dermal/rabbit LD50: 20000 mg/kg. (1)

Inhalation: Corrosive to mucous membranes and respiratory tract. Can cause ulceration of mucous membranes and nausea. Convulsions, coma and death from cardiovascular collapse may occur. (3)

Skin Contact: SEVERE SKIN IRRITANT. Can cause 2nd and 3rd degree burns after only a short contact period.

Eye Contact: CORROSIVE TO EYES. Can cause severe burns and corneal damage.

EFFECTS OF REPEATED OVEREXPOSURE:
Prolonged exposure can cause dermatitis and slow-healing ulcers.

Section 6. HEALTH HAZARD DATA/FIRST AID PROCEDURES (Continued)

CARCINOGENICITY:
This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as a probable human carcinogen.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO MAN: No additional data found.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY OVEREXPOSURE: Kidney damage can occur as a result of formation of excessive calcium oxalate.

FIRST AID PROCEDURES

EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes using an eyewash fountain. Lift upper and lower lids and rinse well under them. Get immediate medical attention.

SKIN: In case of contact, immediately wash with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes while washing. Thoroughly clean contaminated clothing and shoes before reuse. Get medical attention.

INHALATION:
Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION:
DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ATTENTION. If victim if conscious, give milk, eggs or water.

NOTE TO PHYSICIAN:
All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Ingestion: If conscious, give immediately by mouth a dilute solution of any soluble calcium salt, if this has not been previously given. Possible calcium salts include calcium lactate, calcium gluconate, calcium chloride, calcium hydroxide, or finely pulverized chalk or plaster (suspended in large volume of water). Large amounts of calcium are required to inactivate oxalate by precipitating it as the insoluble calcium oxalate. Do not give emetics.

Gastric lavage with dilute lime water (calcium hydroxide) is suggested if severe mucosal injury is not present.

Section 6. HEALTH HAZARD DATA/FIRST AID PROCEDURES (Continued)

Intravenous calcium gluconate may be needed to counter hypocalcemic tetany. 10-20 ml of 10% calcium gluconate should be given by slow intravenous injection. This may need to be repeated frequently.

Renal damage should be anticipated, shock is a possibility when there is gastrointestinal damage, and one should be watchful for possible edema of the glottis. These problems should be treated symptomatically.

Check for metabolic acidosis and treat with intravenous sodium bicarbonate if necessary.

Section 7. PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Evacuate area. Wear appropriate protective gear including NIOSH/MSHA-approved respirator, chemical safety goggles rubber boots and heavy rubber gloves. Ventilate area. Neutralize with soda ash. Collect in appropriate plastic containers. Avoid creating dusting conditions. Wash spill area after material pickup is complete.

WASTE DISPOSAL METHOD:
Dispose of in accordance with Local, State and Federal regulations.

RCRA WASTE: CORROSIVE (D002)

HANDLING AND STORAGE:
TOXIC BY INGESTION. CORROSIVE. Store in a cool, dry place in tightly closed containers. This material is hygroscopic and will absorb water and carbon dioxide from the air. Avoid breathing dusts. Avoid direct or prolonged contact with skin and eyes. Wash hands thoroughly after handling. Do not rub eyes with soiled hands. Do not eat, drink or smoke in the work area. Keep away from feed products or food.

OTHER PRECAUTIONS:
THIS PRODUCT MAY PRESENT A DUST EXPLOSION HAZARD.
It is recommended that all dust control equipment and material transport systems involved in handling of this product contain explosion relief vents or explosion suppression systems or an oxygen deficient environment. In addition, all conductive elements of the system that contact this material should be electrically bonded and grounded. This powder should not be flowed through non-conductive ducts or pipes. Use only appropriately classed electrical equipment.

Section 7. PRECAUTIONS FOR SAFE HANDLING AND USE (Continued)

Good industrial hygiene practice recommends that engineering controls be used to reduce environmental concentrations to the permissible levels.

Keep out of water sources. Dangerous to aquatic life in high concentrations. (BOD 14%, 5 days)

Section 8. CONTROL MEASURES AND WORKER PROTECTION INFORMATION

Respiratory Protection (specify type):
Below 25 mg/m^3, use any NIOSH/MSHA approved powered air-purifying respirator with a dust and mist filter or supplied-air respirator operated in a continuous flow mode. For exposure above this, higher levels of respiratory protection are needed. (See Reference 2.)

Ventilation:
Provide adequate ventilation. Use local exhaust as needed, especially under dusting conditions.

Protective Clothing:
Work uniform, rubber overclothing, rubber gloves, rubber boots.

Eye Protection:

( ) Safety Glasses with Side Shields
(X) Chemical Workers Goggles
( ) Gas-tight Goggles or Equivalent
(X) Other (specify): DO NOT WEAR CONTACT LENSES. Face shield.

Other Protective Equipment:
Maintain a sink, safety shower and eyewash fountain in the work area. Have oxygen readily available.

Section 9. REGULATORY STATUS

TSCA Inventory Status:
(X) Product is listed on the TSCA inventory under CAS# 144-62-7 for anhydrous ethanedioic acid.
( ) Product is restricted to research and development use.

RHONE-POULENC PRODUCT NAME(S)
OXALIC ACID

Section 9. REGULATORY STATUS (Continued)

Transportation Status: Not regulated by DOT. IMO: UN-2449 (oxalates, water soluble).

Reportable Quantity (RQ), under U.S. EPA CERCLA: 100 lb. (as a D002).

Specifically Listed under SARA Title III:
( ) Section 302 Extremely Hazardous Substances
( ) Section 313 Toxic Chemicals
(X) Not listed

State/International Right-to-Know Regulations:

California:	Not listed
Connecticut:	Not listed
Florida:	Toxic
Illinois:	Toxic
Louisiana:	Right to Know
Massachusetts:	Right to Know
New Jersey:	Right to Know, ID# 1445, Special Hazard,
New York:	Not listed
Pennsylvania:	Right to Know
Rhode Island:	Flammable Hazard
Canada:	WHMIS, 0.1% concentration threshold, #1228

Section 10 REFERENCES.

(1) RTEC 7/88
(2) NIOSH Pocket Guide to Chemical Hazards (September 1985).
(3) NFPA 49
(4) RTEC 7/90

The information herein is given in good faith
but no warranty, expressed or implied, is made.

Mallinckrodt
Material Safety Data

Emergency Phone Number: 314-982-5000

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24-130 ~~24-137~~

Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 43061.

OXALIC ACID

PRODUCT IDENTIFICATION:

Synonyms: Ethanedioic acid; ortho-oxalic acid; oxalic acid dihydrate

Formula CAS No.: 6153-56-6 (Dihydrate)

TSCA CAS No.: 144-62-7 (Anhydrous)

Molecular Weight: 126.07

Chemical Formula: $C_2H_2O_4\ 2H_2O$

Hazardous Ingredients: None.

PRECAUTIONARY MEASURES

WARNING! HARMFUL IF SWALLOWED. CAUSES IRRITATION.

Wash thoroughly after handling.

Do not get in eyes, on skin, or on clothing.

This substance is classified as a POISON under the Federal Caustic Poison Act.

EMERGENCY/FIRST AID

If swallowed, DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. In all cases call a physician.
SEE SECTION 5.

DOT Hazard Class: Corrosive Material

SECTION 1 Physical Data

Appearance: Transparent, colorless crystals.

Odor: Odorless.

Solubility: 10 g/100 ml water @ 15°C (59°F)

Boiling Point: Sublimes @ 149°-160°C (300°-320°F)

Melting Point: 101.5°C (214.7°F)

Specific Gravity : 1.65

Vapor Density (Air=1): 4.4

Vapor Pressure (mm Hg): <0.001 @20°C (68°F)

Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
Oxalic Acid is a combustible solid below 101°C (215°F)

Explosion:
Reacts explosively with strong oxidizing materials and some silver compounds.

Fire Extinguishing Media:
Water spray, dry chemical, alcohol foam, or carbon dioxide. Foam or water on molten oxalic acid may cause frothing. Water spray may be used to keep fire exposed containers cool.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:
Heat will contribute to instability.

Hazardous Decomposition Products:
May form carbon monoxide, carbon dioxide and formic acid when heated to decomposition.

Hazardous Polymerization:
No information found.

Incompatibilities:
Alkalies, chlorites, hypochlorites, oxidizing agents, furfuryl alcohol and silver compounds.

SECTION 4 Leak/Spill Disposal Information

Ventilate area or leak or spill. Clean-up personnel may require protective clothing and respiratory protection from dust.

Spills: Sweep up and containerize for reclamation or disposal. Avoid dust dispersal. Trace residue may be neutralized with sodium bicarbonate or soda ash.

Disposal: Whatever cannot be saved for reclamation may be disposed as hazardous waste in a RCRA approved waste disposal facilty.

Ensure compliance with local, state and federal regulations.

NFPA Ratings: Health: 2 Flammability: 1 Reactivity: 0

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SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:
May cause irritation of mucous membranes.

Ingestion:
Toxic! May cause burns, nausea, severe gastroenteritis, shock and convulsions. May cause renal damage. Estimate fatal dose is 5 to 15 grams.

Skin Contact:
Can cause severe burns.

Eye Contact:
Oxalic acid is an eye irritant. It may produce corrosive effects.

Chronic Exposure:
May cause inflammation of the upper respiratory tract. Prolonged skin contact can cause dermatitis, cyanosis of the fingers and possible ulceration.

Aggrevation of Pre-existing Conditions:
Persons with pre-existing skin disorders or eye problems, or impaired kidney or respiratory function may be more susceptible to the effects of the substance.

B. FIRST AID

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:
If swallowed, DO NOT induce vomiting. Give large quantities of water or milk if available. Call a physician immediately. Never give anything by mouth to an unconscious person.

Skin Exposure:
Remove any contaminated clothing. Wipe off excess from skin. Wash skin with plenty of water for at least 15 minutes. Get medical attention promptly.

Eye Exposure:
Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA (RTECS, 1982)

Oral rat LD50 : 375 mg/kg Irritation : skin rabbit 500 mg/24H Moderate . eye rabbit 250 micrograms/24H Severe

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:
OSHA Permissible Exposure Limit (PEL) :
1 mg/m^3 (TWA)
ACGIH Threshold Limit Value (TLV) :
1 mg/m^3 (TWA); 2mg/m^3 (STEL) (Anhydrous)

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)
If the TLV is exceeded, a dust/mist respirator with chemical goggles may be worn, in general, up to ten times the TLV. Consult respirator supplier for limitations. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls to prevent skin contact.

Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Keep in a tightly closed container.Protect from physical damage. Store in a cool,dry, ventilated area away from sources of heat, moisture and incompatibilities.

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MATERIAL SAFETY DATA SHEET
==========
PRODUCT CODE:

CHEMICAL NAME: OXALIC ACID
CAS #: 144-62-7
LABEL: ------

Section I - GENERAL INFORMATION

SUPPLIER NAME: BROWNING CHEMICAL CORPORATION
ADDRESS: 330 MADISON AVENUE
CITY: NEW YORK
STATE: NEW YORK ZIP: 10017
TELEPHONE NO. 212-867-0600:

TRADE NAME : ETHANEDIOIC ACID
CHEMICAL FAMILY: ORGANIC ACID
FORMULA : $C_2H_2O_4 \cdot 2H_2O$

"FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT (800-424-9300)":

HAZARD RATING (H.M.I.S.)
HEALTH : 2
FIRE : 1
REACTIVITY: 0
SPECIAL :

RECEIVED
DATE 1/22/86
INITIALS

HAZARD RATING SCALE
0 = MINIMAL
1 = SLIGHT
2 = MODERATE
3 = SERIOUS
4 = SEVERE

DATE PREPARED: 11/25/85

Section II - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (Chemical and common name(s)	OSHA PEL	ACGIH TLV	OTHER EXPOSURE LIMITS
OXALIC ACID	TWA 1mg/m^3		
	STEL 2mg/m^3		

Section III - PHYSICAL & CHEMICAL CHARACTERISTICS

BOILING POINT: DECOMPOSES
MELTING POINT: 101.5 DEG C
SPECIFIC GRAVITY: 1.653
SOLUBILITY IN WATER: AT 20 DEG C 95.2 G/L
APPEARANCE AND ODOR: WHITE CRYSTALLINE, ODORLESS

VAPOR PRESSURE (mm Hg): NA
VAPOR DENSITY (AIR=1) : NA
REACTIVITY IN WATER: NA

OTHER:

Section IV - FIRE & EXPLOSION DATA

FLASH POINT: NOT FLAMMABLE
METHODS USED: NA
FLAMMABLE LIMITS: NA
LEL:
UEL:
AUTO-IGNITION TEMPERATURE: NA
EXTINGUISHER MEDIA: ALL TYPES OK

SPECIAL FIRE FIGHTING PROCEDURES:

UNUSUAL FIRE AND EXPLOSION HAZARDS: GENERATES POISONOUS GASES AS MATERIAL DECOMPOSES

Section V - PHYSICAL HAZARDS (REACTIVITY DATA)

CONDITIONS TO AVOID: HIGH HEAT

INCOMPATIBILITY
MATERIALS TO AVOID:

HAZARDOUS DECOMPOSITION PRODUCTS:

HAZARDOUS POLYMERIZATION MAY OCCUR: WILL NOT OCCUR: X

CONDITIONS TO AVOID:

Section VI - HEALTH HAZARDS

---

1. ACUTE:

2. CHRONIC:

SIGNS & SYMPTOMS OF EXPOSURE: IF INHALED WILL CAUSE DIFFICULTY IN BREATHING. WILL BURN EYES, NOSE AND THROAT. IF INGESTED WILL CAUSE SEVERE GASTROENTERITIS AND SECONDARY SHOCK WITH DEATH IN A FEW HOURS.
CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN
OSHA YES: NO: X NATIONAL TOXICOLOGY PROGRAM YES: NO: X
I.A.R.C. MONOGRAPHS YES: NO: X

EMERGENCY FIRST AID PROCEDURES:
INHALATION: MOVE TO FRESH AIR. IF BREATHING STOPPED GIVE ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULT, GIVE OXYGEN, CONSULT PHYSICIAN

EYES: FLUSH EYES WITH WATER. GET MEDICAL HELP. RINSE MOUGH AND THROAT WITH WATER

SKIN: REMOVE CONTAMINATED CLOTHING AND WASH THOROUGLY WITH WATER.

INGESTION: DUE TO CORROSIVE DAMAGE CAUSING SEVERE GASTROENTERITIS AND SECONDARY SHOCK DEATH CAN OCCUR IN A FEW HOURS. HAVE VICTIM DRINK WATER OR MILK. DO NOT INDUCE VOMITING. GET MEDICAL HELP IMMEDIATELY.

Section VII - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING & STORAGE: STORE IN COOL, DRY AREA.

OTHER PRECAUTIONS:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: SWEEP UP AND STORE IN SUITABLE WASTE DISPOSAL DRUM. NEUTRALIZE WITH LIME OR SODA ASH.

WASTE DISPOSAL METHODS (Consult federal, state, and local regulations):

Section VIII - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

RESPIRATORY PROTECTION (specify type): SELF CONTAINED BREATHING APPARATUS

SPECIAL :
OTHER :

PROTECTIVE GLOVES: RUBBER GLOVES

EYE PROTECTION: GOGGLES

OTHER PROTECTIVE CLOTHING/EQUIPMENT: RUBBER APRON

WORK/HYGIENIC PRACTICES: USUAL GOOD HOUSEKEEPING AND HYGIEN PROCEDURES.

Section XI - TRANSPORTATION DATA

PROPER SHIPPING NAME: OXALIC ACID
DOT/HAZARD CLASS: NONE
LABEL REQUIREMENT: NONE

RQ: -----
UN: -----
PLACARD: NONE

All information, recommendations, and suggestions contained herein regarding this product are based on data obtained from the manufacturer and/or recognized technical sources. However BROWNING CHEMICAL CORPORATION makes no warranty express or implied as to its accuracy or completeness, and none is made as to the use of this product by others which is beyond our control. It is the user's responsibility to determine the safety, toxicity and suitability for his own application and use, handling and disposal of the product. The information in this MSDS relates only to the product designated herein and does not relate to the use in combination, mixture, process or otherwise with any other material.

17-R&D

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION:

PRODUCT NAME: OXOCHROME 33

CHEMICAL FAMILY: Basic Chromium Sulfate

DISTRIBUTOR: Tannin Corporation
58 Pulaski Street
Peabody MA 01960

EMERGENCY TELEPHONE #: CHEMTREC 1-800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS:

INGREDIENT NAME /CAS NUMBER		EXPOSURE LIMITS		CONCENTRATION (%)
HAZARDOUS INGREDIENTS				
Chromium (III) Hydroxide Sulfate 12336-95-7	OSHA:	.50 mg/m3	(as Chromium)	40-50%
	ACGIH:	.50 mg/m3	(as Chromium)	

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW

Color: Green; Form: Powder; Odor: Odorless; Product poses little or no hazard if spilled and no unusual hazard if involved in a fire.

POTENTIAL HEALTH EFFECTS:

ROUTE(S) OF ENTRY..... : Inhalation; Skin Contact; Eye Contact; Ingestion

Sam revised date 7/21/98

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

ACUTE SKIN CONTACT :Based on animal toxicity testing (see Section 11), we would expect this product to be non-irritating to the skin. Some trivalent compounds have demonstrated a slight skin sensitization potential. Trivalent compounds do not give rise to local or systemic effects and are poorly absorbed.

ACUTE EYE CONTACT : Based on animal toxicity testing (see Section 11), we would expect this product to be non-irritating to the eyes.

ACUTE INGESTION : Based on animal toxicity testing (see Section 11), we would expect this product to be essentially non- toxic by ingestion.

CHRONIC EFFECTS OF EXPOSURE... : See "Carcinogenicity" for further information concerning chromium compounds.

CARCINOGENICITY

NTP : This product contains a trivalent chromium compound. Chromium and certain chromium compounds have been classified by the National Toxicology Program (NTP) as "Substances or groups of substances known to be carcinogenic." However, there was inadequate evidence for Carcinogenicity of chromium and trivalent chromium compounds in humans and experimental animals.1

IARC : This product contains a trivalent chromium compound. IARC lists trivalent chromium compounds as a Group 3 carcinogen; "The chemical or group of chemicals cannot be classified as to its Carcinogenicity for humans." IARC Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Humans concluded that "there is no consistent evidence that water soluble trivalent chromium has genetic activity."2

OSHA : Not regulated

MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE : Although we have no data available on the effects of inhaling this product, persons with impaired pulmonary function may be more susceptible to the effects of inhaling any type of dusty material.

1 NTP Fifth Annual Report on Carcinogens Summary 1989
2 IARC Monographs - Supplement 7

4. FIRST AID MEASURES:

FIRST AID FOR EYES..... : In case of contact, immediately flush eyes with water for at least 15 minutes. Call a physician.

FIRST AID FOR SKIN..... : In case of contact, remove contaminated clothing, wash skin with plenty of water. Wash contaminated clothing before reuse. Contact a physician if irritation develops or persists.

FIRST AID FOR INHALATION: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

FIRST AID FOR INGESTION.: If swallowed, call a physician.

5. FIRE FIGHTING MEASURES

FLASH POINT : Not Applicable

EXTINGUISHING MEDIA : Water; Carbon Dioxide; Dry Chemical; Foam

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Avoid dusting. Dust can form explosive mixtures with air.

6. ACCIDENTAL RELEASE MEASURES:

SPILL OR LEAK PROCEDURES..... : Utilize recommended protective clothing and equipment. Spills should be swept up and placed in containers. Spill area can be washed with water. Collect wash water for approved disposal.

7. HANDLING AND STORAGE:

STORAGE TEMPERATURE (MIN/MAX): Ambient

SHELF LIFE : Not Established

SPECIAL SENSITIVITY : Avoid contact with moisture to keep product from caking.

HANDLING/STORAGE PRECAUTIONS : Avoid breathing dust. Avoid contact with eyes and skin. Wash thoroughly after handling. Store in a dry place away from excessive heat, in original or similar waterproof containers. Reseal containers immediately after use.

8. PERSONAL PROTECTION:

EYE PROTECTION REQUIREMENTS : Chemical safety goggles

SKIN PROTECTION REQUIREMENTS : Rubber gloves and long sleeved shirts and pants to minimize skin contact. Employees should wash their hands and face before eating, drinking or using tobacco products.

VENTILATION REQUIREMENTS : Use local ventilation if dusting is a problem, to maintain air levels below the recommended exposure limit.

RESPIRATOR REQUIREMENTS..... : Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator should be worn.

ADDITIONAL PROTECTIVE MEASURES..... : Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM..... :	Powder
COLOR..... :	Green
ODOR..... :	Odorless
pH..... :	2.6 at 50 g/l water at 68 F (20 C)
BOILING POINT..... :	Not Applicable
MELTING/FREEZING POINT..... :	Not Applicable
VISCOSITY..... :	Not Applicable
SOLUBILITY IN WATER..... :	2300 g/l
SPECIFIC GRAVITY..... :	Not Established
BULK DENSITY..... :	Approx. 1000 kg/m3 at 68 F (20 C)
VAPOR PRESSURE..... :	Not Applicable
VOC BY WEIGHT..... :	About 4.176% - Tested by EPA Method 24A.

10. STABILITY AND REACTIVITY:

STABILITY.....	: This is a stable material.
HAZARDOUS POLYMERIZATION ...	: Will not occur.
INCOMPATIBILITIES.....	: Oxidizing and reducing agents.
INSTABILITY CONDITIONS	: None Known
DECOMPOSITION TEMPERATURE..	: Greater than 2192 F (1200 C)
DECOMPOSITION PRODUCTS	: CO, C02, oxides of chromium, sulfur and other potentially toxic fumes.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

ORAL LD50	: 3530 MG/KG (Rat)
EYE EFFECTS	: Nonirritating to rabbit eyes
SKIN EFFECTS	: Nonirritating to rabbit skin

12. ECOLOGICAL INFORMATION:

AQUATIC TOXICITY..... : LC50: 10,000 mg/l - Zebra barbel

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD..... : Waste disposal should be in accordance with existing federal, state and local environmental regulations.

14. TRANSPORTATION INFORMATION:

TECHNICAL SHIPPING NAME	:Chromium Tanning Agent
FREIGHT CLASS BULK	:Chemicals, NOI
FREIGHT CLASS PACKAGE	:Chemicals, NOI (NMFC 60000)
PRODUCT LABEL	:Oxochrome 33

DOT (DOMESTIC SURFACE)

HAZARD CLASS OR DIVISION..... : Non-Regulated

IMO / IMDG CODE (OCEAN)

HAZARD CLASS DIVISION NUMBER... : Non-Regulated

ICAO / IATA (AIR)

HAZARD CLASS DIVISION NUMBER... : Non-Regulated

15. REGULATORY INFORMATION:

OSHA STATUS..... : This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS..... :On TSCA Inventory

CERCLA REPORTABLE QUANTITY..: Chromium and Chromium compounds - No RQ is assigned to this generic class

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES.. : None

SECTION 311/312 HAZARD CATEGORIES .....: Immediate Health Hazard

SECTION 313 TOXIC CHEMICALS.....: Chromium Compounds (Less than 20%-total Chromium)

RCRA STATUS : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24) (Contains Chromium, Less than 20%, EPA Hazardous Waste Number D005)

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME / CAS NUMBER	CONCENTRATION	STATE CODE
Chromium (III) Hydroxide Sulfate 12336-95-7	40 - 50 %	PA2, MA, NJ2
Sodium Sulfate 7757-82-6	15 - 25 %	PA1, MA, NJ4
Water 7732 18-5	Greater than 1 %	PA3, NJ4
Lead 7439-92-1	20 ppm*	CA

CA3 = Warning! This chemical is known to the State of California to cause Cancer and birth defects or other reproductive harm.
MA = Massachusetts Hazardous Substance List
NJ2 = New Jersey Environmental Hazardous Substance List
NJ4 = New Jersey Other - included in 5 predominant ingredients > 1%
PA1 = Pennsylvania Hazardous Substance List
PA2 = Pennsylvania Special Substances List
PA3 = Pennsylvania Non-hazardous present at 3% or greater.

* These figures are typical results determined by a random sample analysis and should not be construed as limits for this material.

16. OTHER INFORMATION:

HMIS RATINGS:	Health	Flammability	Reactivity
	1	1	1

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

Tannin's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS ratings are provided by Tannin as a customer service.

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Tannin Corporation. The data on this sheet relates only to the specific material designated herein. Tannin Corporation assumes no legal responsibility for use or reliance upon these data.

Entered 4/28/97
jc/word/msds/ox33
Revised 7/21/98 DAD, section 15 CA3

17-R+D

MATERIAL SAFETY DATA SHEET

SECTION I : MATERIAL IDENTIFICATION

PRODUCT: OXOCHROME SR35 DATE: June 11, 1997

DISTRIBUTOR: TANNIN CORPORATION
58 PULASKI ST.
PEABODY, MA 01960

EMERGENCY TELEPHONE NUMBER: 800-424-9300

CHEMICAL FAMILY: BASIC CHROMIUM SULFATE

SECTION II : HAZARDOUS INGREDIENTS

INGREDIENT NAME/ CAS NUMBER:	EXPOSURE LIMITS	CONCENTRATION%
Chromium (III) Hydroxide Sulfate		
12336-95-7	OSHA: .500 mg/m3 (as Chromium)	50-70%
	ACGIH:.500mg/m3 (as Chromium)	

SECTION III : PHYSICAL PROPERTIES

BOILING POINT:	Not Applicable
SPECIFIC GRAVITY:	Not established
VAPOR PRESSURE	Not Applicable
MELTING/FREEZING POINT:	Not Applicable
BULK DENSITY:	Approx. 1000 kg / m3 at 68°F (20°C)
SOLUBILITY IN WATER:	2300 g/l
pH:	2.6 at 50 g/l water at 68°F (20°C)
COLOR:	Green
ODOR:	odorless
PHYSICAL FORM:	Powder
VISCOSITY:	Not Applicable

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not applicable
EXTINGUISHING MEDIA: Water; dry chemical; carbon dioxide; foam
SPECIAL FIRE FIGHTING PROCEDURE: Firefighters should be equipped with self-contained breathing apparatus to protect against toxic and irritating fumes. Avoid dusting. Dust can form explosive mixtures with air.

Post-it® Fax Note 7671	Date 9-25-01	# of pages ▶ 6
To Sue	From	
Co./Dept. Wolverine	Co. Tannin Corp.	
Phone #	Phone # 978-532-4010	
Fax # 616-866-0992	Fax # 978-532-5536	

SECTION V: HUMAN HEALTH DATA

ROUTES OF ENTRY:
Eye contact; Skin contact; Inhalation; Ingestion

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:
ACUTE SKIN CONTACT: Based on animal toxicity testing (See section XII) we would expect this product to be non-irritating to the skin. Some trivalent compounds have demonstrated a slight skin sensitization potential. Trivalent compounds do not give rise to local or systemic effects and are poorly absorbed.

ACUTE EYE CONTACT: Based on animal toxicity testing (See section XII) we would expect product to be non irritating to eyes.

ACUTE INGESTION: Based on animal toxicity testing (See section XII) we would expect this product to be essentially non-toxic by ingestion.

CHRONIC EFFECTS OF EXPOSURE: See "Carcinogenicity" for further information concerning chromium compounds.

CARCINOGENICITY:
NTP----This product contains a trivalent chromium compound. Chromium and certain chromium compounds have been classified by the National Toxicology Program (NTP) as "Substances or groups of substances known to be carcinogenic." However, there was inadequate evidence for carcinogenicity of chromium and trivalent chromium compounds in humans and experimental animals.

IARC--- This product contains a trivalent chromium compound. IARC lists trivalent chromium compounds as a Group 3 carcinogen;"The chemical or group of chemicals cannot be classified as to its carcinogenicity for humans" IARC Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Humans concluded that "there is no consistent evidence that water soluble trivalent chromium has generic activity."2

OSHA---Not regulated

MEDICAL CONDITIONS:
AGGRAVATED BY EXPOSURE:
Although we have no data available on the effects of inhaling this product, persons with impaired pulmonary function may be more susceptible to the effects of inhaling any type of dusty material.

1-NTP Fifth Annual Report on Carcinogens Summary 1989
2-IARC Monographs-Supplement 7

SECTION VI: EMERGENCY AND FIRST AID PROCEDURES

FIRST AID FOR EYES: In case of contact, immediately flush eyes with water for at least 15 minutes. Call physician.

FIRST AID FOR SKIN: In case of contact, remove contaminated clothing, wash skin with plenty of water. Wash contaminated clothing before reuse. Contact a physician if irritation develops or persists.

FIRST AID FOR INHALATION: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call physician

FIRST AID FOR INGESTION: If swallowed, call physician.

SECTION VII: EMPLOYEE PROTECTION RECOMMENDATIONS

EYE PROTECTION REQUIREMENTS: Chemical safety goggles

SKIN PROTECTION REQUIREMENTS: Rubber gloves and long sleeved shirts and pants to minimize skin contact. Employees should wash their hands and face before eating, drinking or using tobacco products.

RESPIRATOR PROTECTION REQUIREMENTS: Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, NIOSH/MSHA approved dust respirator should be worn.

VENTILATION REQUIREMENTS: Local ventilation if dusting is a problem to maintain air levels below the recommended exposure limit.

ADDITIONAL PROTECTIVE MEASURES: Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.

SECTION VIII: REACTIVITY DATA

STABILITY:	This is a stable material
HAZARDOUS POLYMERIZATION:	Will not occur
INCOMPATIBILITIES:	Oxidizing and reducing agents
INSTABILITY CONDITIONS:	None known
DECOMPOSITION TEMPERATURE:	Greater than 2192°F (1200°)
DECOMPOSITION PRODUCTS:	CO, CO_2, oxides of chromium, sulfur, and other potentially toxic fumes.

SECTION IX: SPILL AND LEAK PROCEDURES

SPILL OR LEAK PROCEDURES: Utilize recommended protective clothing and equipment. Spills should be swept up and placed in container. Spill area can be washed with water. Collect wash water for approved disposal.

WASTE DISPOSAL METHOD: Waste disposal should be in accordance with existing federal, state and local environmental regulations

SECTION X: SPECIAL PRECAUTIONS AND STORAGE DATA

STORAGE TEMPERATURE(MIN/MAX): Ambient
SHELF LIFE: Not established
SPECIAL SENSITIVITY: Avoid contact with moisture to keep product from caking.
HANDLING/STORAGE PRECAUTIONS: Avoid breathing dust. Avoid contact with eyes and skin Wash thoroughly after handling. Store in a dry place away from excessive heat, in original or similar waterproof containers. Reseal containers immediately after use.

SECTION XI : SHIPPING INFORMATION

Shipping Name: Basic Chromium Sulfate
Freight Class Bulk: Chemicals, NOI
Freight Class Pkg.: Chemicals, NOI (NMFC 60000)
Product Label: Oxochrome SR35

DOT (IM-181) (DOMESTIC SURFACE)
HAZARD CLASS OR DIVISION--Non regulated

IMO/IMDG CODE (OCEAN)
HAZARD CLASS DIVISION NUMBER--Non regulated

ICAO/ IATA (AIR)

HAZARD CLASS DIVISION NUMBER--Non regulated

SECTION XII: ANIMAL TOXICITY DATA

ACUTE TOXICITY
- ORAL LD50 3530 mg/kg (Rat)
- EYE EFFECTS Non-irritating to rabbit eyes
- SKIN EFFECTS Non-irritating to rabbit skin

AQUATIC TOXICITY LC50: 10,000mg/l-Zebra barbel

SECTION XIII: FEDERAL REGULATORY INFORMATION

OSHA STATUS: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS: On TSCA inventory

CERCLA REPORTABLE QUANTITY: Chromium and Chromium compounds-No RQ is assigned to this generic class

SARA TITLE III:
SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None
SECTION 311/312 HAZARD CATEGORIES: Immediate Health Hazard
SECTION 313:TOXIC CHEMICALS: Chromium compounds (Less that 20% total chromium)

RCRA STATUS: When discarded in its purchased form, this product should be managed as a RCRA hazardous waste. (40 CFR 261.20-24). Although this product has not been tested, it would be expected to exhibit the characteristic of toxicity under RCRA. (Contains Chromium, Less than 20%, EPA Hazardous Waste Number D005)

SECTION XIV: OTHER REGULATORY INFORMATION

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME CAS NUMBER	CONCENTRATION	STATE CODE
Chromium (III) Hydroxide Sulfate 12336-95-7	50-70%	PA2,MA, NJ2
Sodium Sulfate 7757-82-6	Greater than 1%	PA1,MA,NJ4
Water 7732-18-5	Greater than 1%	PA3, NJ4

MA=Massachusetts Hazardous Substance List.
NJ2= New Jersey Environmental Hazardous Substance List.
NJ4= New Jersey Other- included in 5 predominant ingredients >1%.
PA1= Pennsylvania Hazardous Substance List.
PA2=Pennsylvania Special Substances List.
PA3= Pennsylvania Non-hazardous present at 3% or greater.

PG. 6 OXOCHROME SR 35

HMIS RATINGS:	HEALTH	FLAMMABILITY	REACTIVITY
	1	1	1

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe
Product: Oxochrome SR35

*This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Tannin Corporation. The data on this sheet relates only to the specific material designated herein. Tannin Corporation assumes no legal responsibility for use or reliance upon these data.

ENTERED 7/95ra

BOC GASES

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: OXYGEN

1. Chemical Product and Company Identification

BOC Gases,
A Division of
The BOC Group, Inc
575 Mountain Avenue
Murray Hill, NJ 07974

TELEPHONE NUMBER: (908)464-8100
24-HOUR EMERGENCY TELEPHONE
NUMBER: CHEMTREC (800)424-9300

BOC Gases,
A Division of
BOC Canada Ltd.
89 Queensway West
Mississauga, Ontario L5B 2V2

TELEPHONE NUMBER: (905)273-7700
24-HOUR EMERGENCY TELEPHONE
NUMBER: (905)949-3777
EMERGENCY RESPONSE PLAN NO: 20101

PRODUCT NAME: OXYGEN
CHEMICAL NAME: Oxygen
COMMON NAMES/SYNONYMS: None
TDG CLASSIFICATION: 2.2 (5.1)
WHMIS CLASSIFICATION: A, C

PREPARED BY: Loss Control (908)464-8100/(905)273-7700
PREPARATION DATE: 04/01/95
REVIEW DATES: 04/01/95
LATEST REVISION DATE: 04/01/95
PREVIOUS REVISION DATE: None

2. Composition, Information on Ingredients

INGREDIENT	% VOLUME	PEL-OSHA[1]	TLV-ACGIH[2]	LD_{50} or OC_{50} Route/Species
Oxygen FORMULA: O2 CAS: 7782-44-7 RTECS #: RS2060000	99.6 to 100.0	Not Available	Not Available	Not Available

[1] As stated in 29 CFR 1910, Subpart Z (revised July 1, 1993)
[2] As stated in the ACGIH 1994-95 Threshold Limit Values for Chemical Substances and Physical Agents

3. Hazards Identification

EMERGENCY OVERVIEW

Elevated oxygen levels may result in cough and other pulmonary changes. High concentrations of oxygen (greater than 75%) causes symptoms of hyperoxia which included cramps, nausea, dizziness, hypothermia, ambylopia, respiration difficulties, bradycardia, fainting spells and convulsions capable of leading to death. Nonflammable. Oxidizer, will accelerate combustion.

PRODUCT NAME: OXYGEN

ROUTE OF ENTRY:

Skin Contact	Skin Absorption	Eye Contact	Inhalation	Ingestion
No	No	No	Yes	No

HEALTH EFFECTS:

Exposure Limits	Irritant	Sensitization
No	No	No
Teratogen	**Reproductive Hazard**	**Mutagen**
No	No	Yes
Synergistic Effects None known		

Carcinogenicity: -- NTP: No IARC: No OSHA: No

EYE EFFECTS:
Contact with liquid product may cause tissue freezing.

SKIN EFFECTS:
Contact with liquid product may cause tissue freezing.

INGESTION EFFECTS:
Contact with liquid product may cause tissue freezing.

INHALATION EFFECTS:
High concentrations of oxygen (greater than 75%) causes symptoms of hyperoxia which included cramps, nausea, dizziness, hypothermia, amblyopia, respiration difficulties, bradycardia, fainting spells and convulsions capable of leading to death. The property is that of hyperoxia which leads to pneumonia. Concentrations between 25 and 75% present a risk of inflammation of organic matter in the body.

Oxygen concentrations between 20 to 95% have produced genetic changes in mammalian cell assay test systems.

NFPA HAZARD CODES		HMIS HAZARD CODES		RATINGS SYSTEM
Health:	0	Health:	0	0 = No Hazard
Flammability:	0	Flammability:	0	1 = Slight Hazard
Reactivity:	0	Reactivity:	0	2 = Moderate Hazard
				3 = Serious Hazard
				4 = Severe Hazard

4. First Aid Measures

EYES:
Never introduce ointment or oil into the eyes without medical advice! In case of freezing or cryogenic "burns" caused by rapidly evaporating liquid, DO NOT WASH THE EYES WITH HOT OR EVEN TEPID WATER! Remove victim from the source of contamination. Open eyelids wide to allow liquid to evaporate. If pain is present, refer the victim to an ophthalmologist for treatment and follow up. If the victim cannot tolerate light, protect the eyes with a light bandage.

PRODUCT NAME: OXYGEN

SKIN:
For dermal contact or frostbite: Remove contaminated clothing and flush affected areas with lukewarm water. DO NOT USE HOT WATER. A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the dermal surface or deep tissue freezing.

INGESTION:
A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the dermal surface or deep tissue freezing.

INHALATION:
PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO OXYGEN. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Further treatment should be symptomatic and supportive. Inform the treating physician that the patient could be experiencing hyperoxia.

5. Fire Fighting Measures

Conditions of Flammability: Not flammable, Oxidizer		
Flash point: None	Method: Not Applicable	Autoignition Temperature: None
LEL(%): None	UEL(%): none	
Hazardous combustion products: None		
Sensitivity to mechanical shock: None		
Sensitivity to static discharge: None		

FIRE AND EXPLOSION HAZARDS:
High oxygen concentrations vigorously accelerate combustion.

EXTINGUISHING MEDIA:
Water spray to keep cylinders cool. Extinguishing agent appropriate for the combustible material.

FIRE FIGHTING INSTRUCTIONS:
If possible, stop the flow of oxygen which is supporting the fire.

6. Accidental Release Measures

Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with inert gas prior to attempting repairs. If leak is in container or container valve, contact the appropriate emergency telephone number listed in Section 1 or call your closest BOC location.

7. Handling and Storage

Electrical classification:
Nonhazardous

Dry product is noncorrosive and may be used with all materials of construction. Moisture causes metal oxides which are formed with air to be hydrated so that they include volume and lose their protective role (rust formation). Concentrations of SO_2, Cl_2, salt, etc. in the moisture enhances the rusting of metals in air.

Carbon steels and low alloy steels are acceptable for use at lower pressures.

For high pressure applications stainless steels are acceptable as are copper and its alloys, nickel and its alloys, brass bronze, silicon alloys, Monel (R), Inconel (R) and beryllium. Lead and silver or lead tin alloys are good gasket materials. Teflon (R), Teflon (R) composites, or Kel-F (R) are preferred non-metallic gasket materials.

Check with the supplier to verify oxygen compatibility for the service conditions.

Oxygen should not be used as a substitute for compressed air in pneumatic equipment since this type generally contains flammable lubricants.

Stationary customer site vessels should operate in accordance with the manufacturer's and BOC's instruction. Do not attempt to repair, adjust or in any other way modify the operation of these vessels. If there is a malfunction or other type of operations problem with the vessel, contact the closest BOC location immediately.

Valve protection caps must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to lower pressure (<3000 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the system.

Protect cylinders from physical damage. Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 130°F (54°C). Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent full cylinders being stored for excessive periods of time. Post "NO SMOKING OR OPEN FLAMES" signs in the storage area or use area. There should be no sources of ignition in the storage or use area.

For additional storage recommendations, consult Compressed Gas Association's Pamphlets P-1, P-14 and Safety Bulletin SB-2.

Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

8. Exposure Controls, Personal Protection

EXPOSURE LIMITS:

INGREDIENT	% VOLUME	PEL-OSHA[1]	TLV-ACGIH[1]	LD_{50} or DC_{50} Route/Species
Oxygen FORMULA: O2 CAS: 7782-44-7 RTECS #: RS2060000	99.6 to 100.0	Not Available	Not Available	Not Available

Refer to individual state or provincial regulations, as applicable, for limits which may be more stringent than those listed here.

PRODUCT NAME: OXYGEN

ENGINEERING CONTROLS:
Use local exhaust to prevent accumulation of high concentrations that increase the oxygen level in air to more than 25%.

EYE/FACE PROTECTION:
Safety goggles or glasses as appropriate for the job. Faceshield is recommended for cryogenic liquids.

SKIN PROTECTION:
Protective gloves made of any suitable material appropriate for the job. Insulated gloves recommended for cryogenic liquids.

OTHER/GENERAL PROTECTION:
Safety shoes, safety shower.

9. Physical and Chemical Properties

PARAMETER	VALUE	UNITS
Physical state (gas, liquid, solid)	: Gas	
Vapor pressure	: Above critical temp.	
Vapor density Air=1)	: 1.11	
Evaporation point	: Not Available	
Boiling point	: -297.3	°F
	: -182.9	°C
Freezing point	: -361.8	°F
	: -218.8	°C
pH	: Not Applicable	
Specific gravity at STP	: Not Available	
Oil/water partition coefficient	: Not Available	
Solubility (H20)	: Slightly soluble	
Odor threshold	: Not Applicable	
Odor and appearance	: Colorless, odorless gas	

10. Stability and Reactivity

STABILITY:
Stable.

INCOMPATIBLE MATERIALS:
All flammable materials.

HAZARDOUS DECOMPOSITION PRODUCTS:
None.

HAZARDOUS POLYMERIZATION:
Will not occur.

PRODUCT NAME: OXYGEN

11. Toxicological Information

MUTAGENIC:
Oxygen concentrations between 20 to 95% have produced genetic changes in mammalian cell assay test systems.

12. Ecological Information

No data given.

13. Disposal Considerations

Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to BOC Gases or authorized distributor for proper disposal.

14. Transport Information

PARAMETER	US DOT	CTDG
PROPER SHIPPING NAME:	Oxygen, compressed	Oxygen, compressed
HAZARD CLASS:	2.2	2.2 (5.1)
IDENTIFICATION NUMBER:	UN 1072	UN 1072
SHIPPING LABEL:	NONFLAMMABLE GAS, OXIDIZER	NONFLAMMABLE GAS, OXIDIZER

15. Regulatory Information

SARA TITLE III NOTIFICATIONS AND INFORMATION

SARA TITLE III - HAZARD CLASSES:
Fire Hazard
Sudden Release of Pressure Hazard

16. Other Information

Compressed gas cylinders shall not be refilled without the express written permission of the owner. Shipment of a compressed gas cylinder which has not been filled by the owner or with his/her (written) consent is a violation of transportation regulations.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:
Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

Material Safety Data Sheet

YSI, Incorporated
1725 Brannum Lane
Yellow Springs, Ohio 45387 USA

Information and Emergency Phone: 1-937-767-7241

SECTION 1 - MATERIAL IDENTIFICATION

Product Name: YSI 5775 O2 Probe Solution Formula: KCl
Chemical Type:: Inorganic halogen salt with wetting agent
CAS No. 7447-40-7

SECTION 2 - HAZARDOUS / IMPORTANT INGREDIENTS

Chemical	CAS No.	PERCENT	PEL/TLV	CARCINOGEN (OSHA, NTP, IARC)
Potassium Chloride	7447- 40 - 7	99.99%	none	no
Kodak Photo-flo 200	N/A	<0.1%	none	no

SECTION 3 - CHEMICAL AND PHYSICAL PROPERTIES

Appearance: white powder
Odor: none
pH: neutral
Water Solubility: infinite
Evaporation Rate: not available

Boiling Point: not available
Melting Point: 1418 °F (770°C)
Specific Gravity: 1.984
Vapor Pressure: N/A
Vapor Density: N/A

SECTION 4 - FIRE AND EXPLOSION HAZARDS

Flash Point: none Explosive Limits: none
Extinguishing Media: N/A
Material is not combustible.

SECTION 5 - REACTIVITY INFORMATION

Stable: X Unstable: Precautions: none
Hazardous Polymerization: Does not occur
Incompatibility: strong acids and oxidizing agents
Hazardous Decomposition Products: not available

SECTION 6 - HEALTH HAZARDS / PROTECTIVE MEASURES / FIRST AID

Inhalation:
Possible mild irritation from dusts.
Use a NIOSH approved respirator for dusts. Get supplier recommendations. Provide adequate ventilation.
Eliminate dusty conditions.
Remove to fresh air and provide artificial respiration if needed.
Skin:
Possible irritation from dusts.
Wear dust-proof gloves and other body protection as needed.
Wash exposed areas with soap and water for 15 minutes. Remove contaminated clothing and wash before re-using.
Eyes:
Possible irritation from dust.
Wear dust barrier goggles. Eliminate dusty conditions.
Flush with water for 15 minutes.
Ingestion
No effects expected from normal use and minor amounts ingested. Large amounts, over 1 tablespoon, can upset digestive system.
Avoid mouth breathing. Use dust barrier nose cover. Reduce dusting.
Avoid swallowing. Drink large amounts of water and induce vomiting ONLY if person is conscious. If effects persist, get medical attention.

(No chronic effects reported)

IN ALL CASES: GET MEDICAL ATTENTION IF EFFECTS PERSIST.

Most likely routes of entry: skin. eyes. ingestion.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Spills and Leaks: Flush to sewer or ground.

Storage and Handling: Keep containers closed, Discard any material that may be contaminated.

Waste Disposal: In accordance with applicable regulations for wastes. Is not a RCRA hazardous waste as of this date.

Empty Containers: Rinse. Disposal as appropriate for glass and plastic containers.

SECTION 8 - REGULATORY INFORMATION

DOT: Not regulated.,
SARA Title III S.313, Form R: Nothing reportable.

The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control, and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his own determination of the suitability of the material for his particular use.

Material Safety Data Sheet

June 1, 1998

YSI Incorporated

1725 Brannum Lane
Yellow Springs, OH 45387
USA

Information and Emergency Phone: (937)767-7241

SECTION 1 - MATERIAL IDENTIFICATION

PRODUCT NAME: **YSI 5906 Oxygen Probe Electrolyte** FORMULA: Na_2So_4, KCl
Chemical Type: Mixture of inorganic salts.
CAS No. See Section 2

SECTION 2 - HAZARDOUS / IMPORTANT INGREDIENTS

Chemical	CAS No.	PERCENT	PEL/TLV	CARCINOGEN (OSHA, NTP, IARC)
Sodium Sulfate	7757-82-6	71%	none	no
Potassium Chloride	7447-40-7	29%	none	no

Patent Pending

SECTION 3 - CHEMICAL AND PHYSICAL PROPERTIES

Appearance: white powder
Odor: none
pH: neutral
Water Solubility: infinite
Evaporation Rate: n/av

Boiling Point: n/av
Melting Point: n/av
Specific Gravity: 2.314
Vapor Pressure: n/ap
Vapor Density: n/ap

SECTION 4 - FIRE AND EXPLOSION HAZARDS

Flash Point: none
Explosive Limits: none
Extinguishing Media: n/ap
Material is not combustible.

SECTION 5 - REACTIVITY INFORMATION

Stable: X Unstable: Precautions: none
Hazardous Polymerization: Occurs: Does Not Occur: X
Incompatibility: strong acids and oxidizing agents.
Hazardous Decomposition Products: n/av

SECTION 6 - HEALTH HAZARDS / PROTECTIVE MEASURES / FIRST AID

Inhalation:
Possible mild irritation from dusts.
Use a NIOSH approved respirator for dusts. Get supplier recommendations. Provide adequate ventilation.
Eliminate dusty conditions.
Remove to fresh air and provide artificial respiration if needed.

Skin:
Possible irritation from dusts.
Wear dust-proof gloves and other body protection as needed.
Wash exposed areas with soap and water for 15 minutes. Remove contaminated clothing, and wash before re-using.

Eyes:
Possible irritation from dust.
Wear dust barrier goggles. Eliminate dusty conditions.
Flush with water for 15 minutes.

Ingestion
No effects expected from normal use and minor amounts ingested. Large amounts, over 1 tablespoon, can cause digestive system upsets.
Avoid mouth breathing. Use dust barrier nose cover. Reduce dusting.
Avoid swallowing. Spit out. Drink large amounts of water. Induce vomiting if person is conscious. Otherwise, and if effects persist, get medical attention.

(No chronic effects reported)

IN ALL CASES: GET MEDICAL ATTENTION IF EFFECTS PERSIST.

Most likely routes of entry: skin, eyes, ingestion.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Spills and Leaks: Flush to sewer or ground.

Storage and Handling: Keep containers closed, Discard any material that may be contaminated.

Waste Disposal: In accordance with applicable regulations for wastes. Is not a RCRA hazardous waste as of this date.

Empty Containers: Rinse. Dispose as appropriate for glass and plastic containers.

SECTION 8 - REGULATORY INFORMATION

DOT: Not regulated.
SARA Title III, S.313, Form R: Nothing reportable.

The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control, and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his own determination of the suitability of the material for his particular use.
Patent Pending

A96017A

MATERIAL SAFETY DATA SHEETS

RECEIVING

P

MSDS

MATERIAL SAFETY DATA SHEET

BASF Corporation Chemicals Division
100 Cherry Hill Road, Parsippany, New Jersey 07054, (201) 316-3000

HMIS: H3 F1 R0

BASF

01-347 new

PRODUCT NUMBER: 505368 P-0400 Black Pigment

SECTION I

*Registered Trademark

TRADE NAME: P-0400 Black Pigment

CHEMICAL NAME: N/A

SYNONYMS: None

FORMULA: Mixture

CHEMICAL FAMILY: N/A

MOL. WGT.: N/A

SECTION II - INGREDIENTS

COMPONENT	CAS NO.	%	PEL/TLV - SOURCE
C.I. Pigment Black 7	1333-86-4	N/A	3.5 mg/m³ OSHA, ACGIH
# Ethylene glycol	107-21-1	< 3	50 ppm Ceiling, OSHA

SARA Title III Sect. 313: Listed.
This product is supplied in compliance with the TSCA reporting requirements.

SECTION III - PHYSICAL DATA

BOILING/MELTING POINT @760 mm Hg: 212°F / N/A

pH: 9.5

VAPOR PRESSURE mm Hg @20 C: 17.5

SPECIFIC GRAVITY OR BULK DENSITY: 8.8 lbs/gal

SOLUBILITY IN WATER: Miscible

APPEARANCE: Black liquid ODOR: Ammonia INTENSITY: Mild

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD): N/A

AUTOIGNITION TEMP: N/A

FLAMMABILITY LIMITS IN AIR (% BY VOL) LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIUM	Use water fog, foam or dry chemical extinguishing media.
SPECIAL FIREFIGHTING PROCEDURES	Good firefighting practice dictates the use of self-contained breathing apparatus and turn out gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS	Not known.

EMERGENCY TELEPHONE NUMBER

CHEMTREC 800-424-9300 201-316-3000 518-465-4511

THIS NUMBER IS AVAILABLE DAYS, NIGHTS, WEEKENDS, AND HOLIDAYS

SECTION V - HEALTH DATA

TOXICOLOGICAL TEST DATA:	RESULT:
P-0400 Black Pigment	
Eye Irritation	Strongly irritating
Skin Irritation	Irritating

Existing medical conditions aggravated by exposure to this material:
No information found for this mixture.

EFFECTS OF OVEREXPOSURE:

Routes of exposure to this material include eye and skin contact or inhalation.
Contact with the eyes and skin results in irritation. Prolonged or repeated contact results in severe burns and may result in permanent eye injury. Inhalation of the vapor or mists may result in respiratory irritation. Ingestion of the liquid results in gastric disturbances. Ingestion of about 100 ml of ethylene glycol may result in acute poisoning which is characterized by severe abdominal disturbances, central nervous system depression and possible respiratory or renal failure. Prolonged inhalation of the vapors may cause unconsciousness and increased lymphocyte counts. Chronic overexposure may lead to liver degeneration and severe renal damage. Animal studies indicate that ethylene glycol may be embryotoxic and teratogenic by the oral and inhalation routes. Some of the symptoms of carbon black are cough with phlegm production, tiredness, chest pain, catarrh and headache.

FIRST AID PROCEDURES:

Eyes-Immediately wash eyes with running water for 15 minutes. Get immediate medical attention.
Skin-Wash affected areas with water. Remove and launder contaminated clothing before reuse. If irritation develops consult a physician.
Ingestion-If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.
Inhalation-Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

SECTION VI - REACTIVITY DATA

STABILITY: Stable.
CONDITIONS TO AVOID: N/A

CHEMICAL INCOMPATIBILITY: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

HAZARDOUS POLYMERIZATION: Does not occur
CONDITIONS TO AVOID: N/A

CORROSIVE TO METAL: No | OXIDIZER: No

SECTION VII - SPECIAL PROTECTION

RESPIRATORY PROTECTION:
If vapors or mists are generated, wear a NIOSH/MSHA approved organic vapor/mist respirator.

EYE PROTECTION: Chemical goggles; also wear a face shield if splashing hazard exists.

PROTECTIVE CLOTHING: Gloves, coveralls, apron, boots as necessary to prevent skin contact.

VENTILATION: Local exhaust to control to recommended PEL.

OTHER: Eyewash fountains and safety showers must be easily accessible.

WWW_104(e)_017206

PRODUCT NUMBER: 505368 P-0400 Black Pigment

SECTION VIII - ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA:

None available.

SPILL AND LEAK PROCEDURES:

Spills should be contained, solidified, and placed in suitable containers for disposal. This material is not regulated under RCRA or CERCLA ("Superfund").

HAZARDOUS SUBSTANCE SUPERFUND: No RQ (lbs):

WASTE DISPOSAL METHOD:

Incinerate or bury in a licensed facility.
Do not discharge into waterways or sewer systems without proper authority.

HAZARDOUS WASTE 40CFR261: No HAZARDOUS WASTE NUMBER:

CONTAINER DISPOSAL:

Dispose of in licensed facility.
Recommend crushing or other means to prevent unauthorized reuse.

SECTION IX - SHIPPING DATA

D.O.T. PROPER SHIPPING NAME (49CFR172.101-102)	HAZARDOUS SUBSTANCE (49CFR CERCLA LIST)
None	No
	REPORTABLE QUANTITY (RQ) N/A

D.O.T. HAZARD CLASSIFICATION (CFR172.101-102) PRIMARY	SECONDARY
None	None

D.O.T. LABELS REQUIRED (49CFR172.101-102)	D.O.T. PLACARDS REQUIRED (CFR172.504)	POISON CONSTITUENT (49CFR172.203(K))
None	None	None

BILL OF LADING DESCRIPTION

Compounds, Leather Finishing, Softening, Sponging Or Stuffing NOIBN
(Freezable Product-Protect From Freezing)

CC NO. 755	UN/NA CODE N/A

DATE PREPARED: 3 / 20 / 89 UPDATED: 7 / 13 / 90

WHILE BASF CORPORATION BELIEVES THE DATA SET FORTH HEREIN ARE ACCURATE AS OF THE DATE HEREOF, BASF CORPORATION MAKES NO WARRANTY WITH RESPECT THERETO AND EXPRESSLY DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. SUCH DATA ARE OFFERED SOLELY FOR YOUR CONSIDERATION, INVESTIGATION, AND VERIFICATION.

SECTION X - PRODUCT LABEL

P-0400 Black Pigment

WARNING:
CONTAINS ETHYLENE GLYCOL (CAS No.: 107-21-1); CARBON BLACK (CAS No.: 1333-86-4).
CONTACT WITH EYES AND SKIN RESULTS IN IRRITATION. PROLONGED OR REPEATED CONTACT RESULTS IN SEVERE BURNS. PERMANENT EYE INJURY MAY RESULT. INHALATION OF VAPORS OR MISTS MAY IRRITATE THE RESPIRATORY TRACT.
INGESTION MAY RESULT IN ACUTE POISONING, CHARACTERIZED BY SEVERE ABDOMINAL DISTURBANCES, CENTRAL NERVOUS SYSTEM DEPRESSION AND POSSIBLE RESPIRATORY OR RENAL FAILURE.
PROLONGED INHALATION OF THE VAPORS MAY RESULT IN IRRITATION OR UNCONSCIOUSNESS.
CHRONIC OVEREXPOSURE MAY LEAD TO LIVER AND KIDNEY DAMAGE.
ETHYLENE GLYCOL WAS TERATOGENIC IN LABORATORY ANIMAL STUDIES.
OVEREXPOSURE TO CARBON BLACK MAY CAUSE COUGH, TIREDNESS, CHEST PAIN, INFLAMMATION OF THE MUCOUS MEMBRANES, AND HEADACHE. SOME CARBON BLACKS MAY BE CONTAMINATED WITH STRONGLY ABSORBED POLYCYCLIC AROMATIC HYDROCARBONS WHICH CAUSE CANCER.

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with local exhaust. Wear an NIOSH/MSHA-approved organic vapor/mist respirator, chemical goggles, gloves, coveralls, apron, boots and other protective clothing as necessary to prevent contact. Eyewash fountains and safety showers must be easily accessible. If splashing may occur, wear a full face shield.

FIRST AID:
Eyes-Immediately wash eyes with running water for 15 minutes. Get immediate medical attention.
Skin-Wash affected areas with water. Remove and launder contaminated clothing before reuse. If irritation develops consult a physician.
Ingestion-If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.
Inhalation-Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

IN CASE OF FIRE: Use water fog, foam or dry chemical extinguishing media. Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

EMPTY CONTAINERS: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse this container unless it is professionally cleaned and reconditioned.

DISPOSAL: Spilled material, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations. Refer to our Material Safety Data Sheet for specific disposal instructions.

KN CASE OF CHEMICAL EMERGENCY: Call CHEMTREC day or night for assistance and information concerning spilled material, fire, exposure and other chemical accidents. 800-424-9300

ATTENTION: This product is sold solely for use by industrial institutions.

Refer to our Technical Bulletin and Material Safety Data Sheet regarding safety, usage, applications, hazards, procedures and disposal of this product. Consult your supervisor for additional information.

NJ/PA/MA RTK: 107-21-1, Ethylene glycol; 1333-86-4, CI Pigment Black 7; 7732-18-5, Water; Contents partially unknown

Made in USA.
Coatings and Colorants
HMIS: H3 F1 R0
0790

MATERIAL SAFETY DATA SHEET

BASF Corporation Chemicals Division
100 Cherry Hill Road Parsippany, New Jersey 07054, (201) 316-3000

BASF

HMIS: H1* F1 R0

Rev

PRODUCT NUMBER: 592142 P-0750 White

SECTION I

*Registered Trademark

TRADE NAME: P-0750 White

CHEMICAL NAME: N/A

SYNONYMS: N/A

FORMULA: Mixture

CHEMICAL FAMILY: N/A

MOL. WGT.: N/A

SECTION II - INGREDIENTS

COMPONENT	CAS NO.	%	PEL/TLV - SOURCE
Titanium dioxide (C.I. Pigment White 6)	13463-67-7	<30	10 mg/m3 total dust, ACGIH OSHA (Final) 15 mg/m3 OSHA (Trans) 5 mg/m3 as respirable OSHA (Trans/Final)

SARA Title III Sect. 313: Not listed. This product is supplied in compliance with the TSCA reporting requirements.

SECTION III - PHYSICAL DATA

BOILING/MELTING POINT @760 mm Hg: ~100°C / N/A

pH: ~8.5

VAPOR PRESSURE mm Hg @20 C: N/A

SPECIFIC GRAVITY OR BULK DENSITY: N/A

SOLUBILITY IN WATER: Dispersible

APPEARANCE: White liquid ODOR: Ammonia INTENSITY: Mild

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD): N/A

AUTOIGNITION TEMP: N/A

FLAMMABILITY LIMITS IN AIR (% BY VOL) LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIUM	Use water fog, alcohol foam or dry chemical extinguishing media.
SPECIAL FIREFIGHTING PROCEDURES	Good firefighting practice dictates the use of self-contained breathing apparatus and turn out gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS	None.

EMERGENCY TELEPHONE NUMBER

CHEMTREC 800-424-9300 201-316-3000 518-465-4511

THIS NUMBER IS AVAILABLE DAYS, NIGHTS, WEEKENDS, AND HOLIDAYS

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SECTION V - HEALTH DATA

TOXICOLOGICAL TEST DATA:
P-0750 White

RESULT:
None available for mixture

EFFECTS OF OVEREXPOSURE:

Routes of exposure to this material include eye and skin contact or inhalation.
Contact with the eyes and skin may result in irritation. Inhalation of the vapors or mists may result in respiratory irritation. Ingestion of the liquid may result in gastric disturbances. In a National Cancer Institute (NCI) feeding study, titanium dioxide was not carcinogenic to rats or mice at maximum tolerated doses. In another study, titanium dioxide caused fibrosis and lung cancer in rats exposed to 250 mg/m^3 by inhalation. However, no effects were seen at lower airborne concentrations.

Existing medical conditions aggravated by exposure to this material:
No information found for this mixture.

FIRST AID PROCEDURES:

Eyes-Immediately wash eyes with running water for 15 minutes. If irritation develops, consult a physician.
Skin-Wash affected areas with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops, consult a physician.
Ingestion-If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.
Inhalation-Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

SECTION VI - REACTIVITY DATA

STABILITY: Stable.
CONDITIONS TO AVOID: N/A

CHEMICAL INCOMPATIBILITY: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

HAZARDOUS POLYMERIZATION: Does not occur
CONDITIONS TO AVOID: N/A

CORROSIVE TO METAL: No | **OXIDIZER:** No

SECTION VII - SPECIAL PROTECTION

RESPIRATORY PROTECTION:
If vapors or mists are generated, wear a NIOSH/MSHA approved organic vapor/mist respirator.

EYE PROTECTION: Chemical goggles; also wear a face shield if splashing hazard exists.

PROTECTIVE CLOTHING: Gloves, coveralls, apron, boots as necessary to prevent skin contact.

VENTILATION: Local exhaust to control to recommended P.E.L.

OTHER: N/A

PRODUCT NUMBER: 592142 P-0750 White

SECTION VIII - ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA:

None available.

SPILL AND LEAK PROCEDURES:

Spills should be contained, solidified, and placed in suitable containers for disposal. This material is not regulated under RCRA or CERCLA ("Superfund").

HAZARDOUS SUBSTANCE SUPERFUND: No RQ (lbs):

WASTE DISPOSAL METHOD:

Incinerate or bury in a licensed facility.
Do not discharge into waterways or sewer systems without proper authority.

HAZARDOUS WASTE 40CFR261: No HAZARDOUS WASTE NUMBER:

CONTAINER DISPOSAL:

Dispose of in a licensed facility.
Recommend crushing or other means to prevent unauthorized reuse.

SECTION IX - SHIPPING DATA

D.O.T. PROPER SHIPPING NAME (49CFR172.101-102)	HAZARDOUS SUBSTANCE (49CFR CERCLA LIST)
None	No REPORTABLE QUANTITY (RQ) N/A

D.O.T. HAZARD CLASSIFICATION (CFR172.101-102) PRIMARY	SECONDARY
None	None

D.O.T. LABELS REQUIRED (49CFR172.101-102)	D.O.T. PLACARDS REQUIRED (CFR172.504)	POISON CONSTITUENT (49CFR172.203(K))
None	None	None

BILL OF LADING DESCRIPTION

Compounds, Leather Finishing, Softening, Sponging or Stuffing, NOIBN
(Freezable Product - Protect from Freezing)

CC NO. 755	UN/NA CODE N/A

DATE PREPARED: 7 / 13 / 90 UPDATED: 11 / 13 / 90

WHILE BASF CORPORATION BELIEVES THE DATA SET FORTH HEREIN ARE ACCURATE AS OF THE DATE HEREOF, BASF CORPORATION MAKES NO WARRANTY WITH RESPECT THERETO AND EXPRESSLY DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. SUCH DATA ARE OFFERED SOLELY FOR YOUR CONSIDERATION, INVESTIGATION, AND VERIFICATION.

SECTION X - PRODUCT LABEL

P-0750 White

WARNING:
CONTAINS: TITANIUM DIOXIDE (CAS No.: 13463-67-7)
CONTACT WITH THE EYES AND SKIN MAY RESULT IN IRRITATION. INHALATION OF THE VAPORS OR MISTS MAY RESULT IN RESPIRATORY IRRITATION. INGESTION OF THE LIQUID MAY RESULT IN GASTRIC DISTURBANCES. IN A NATIONAL CANCER INSTITUTE (NCI) FEEDING STUDY, TITANIUM DIOXIDE WAS NOT CARCINOGENIC TO RATS OR MICE AT MAXIMUM TOLERATED DOSES. IN ANOTHER STUDY, TITANIUM DIOXIDE CAUSED FIBROSIS AND LUNG CANCER IN RATS EXPOSED TO 250 MG/M^3 BY INHALATION. HOWEVER, NO EFFECTS WERE SEEN AT LOWER AIRBORNE CONCENTRATIONS.

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mists. Use with local exhaust. Wear a NIOSH/MSHA-approved organic vapor/mist respirator, chemical goggles, gloves, coveralls, apron, boots and other protective clothing as necessary to prevent contact. If splashing may occur, wear a full face shield.

FIRST AID:
Eyes-Immediately wash eyes with running water for 15 minutes. If irritation develops, consult a physician.
Skin-Wash affected areas with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops, consult a physician.
Ingestion-If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.
Inhalation-Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

IN CASE OF FIRE: Use water fog, alcohol foam or dry chemical extinguishing media. Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

EMPTY CONTAINERS: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse this container unless it is professionally cleaned and reconditioned.

DISPOSAL: Spilled material, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations. Refer to our Material Safety Data Sheet for specific disposal instructions.

IN CASE OF CHEMICAL EMERGENCY: Call CHEMTREC day or night for assistance and information concerning spilled material, fire, exposure and other chemical accidents. 800-424-9300

ATTENTION: This product is sold solely for use by industrial institutions.

Refer to our Technical Bulletin and Material Safety Data Sheet regarding safety, usage, applications, hazards, procedures and disposal of this product. Consult your supervisor for additional information.

NJ/PA/MA RTK: 1327-43-1, Aluminum magnesium silicate; 7732-18-5, Water; 9003-01-4, Acrylic acid polymer; 13463-67-7, CI Pigment White 6; 489909-5094-P-CL, proprietary

PROTECT FROM FREEZING
Made in Canada.
Coatings and Colorants
HMIS: H1* F1 R0
0790

Z 12
Disposal

CHEMCO
PRODUCTS INCORPORATED

MATERIAL SAFETY DATA SHEET

CHEMCO Products Incorporated
1349 Grand Oaks Drive
Howell, MI 48843

Phone: (517) 546-7800
FAX : (517) 546-5163

CHEMTREC 24 HOUR EMERGENCY NUMBER: 1-800-424-9300

Polymer

Product.....> **P-250** HV

Section 1: Material Identification

Chemical Family.....	polyquaternary amine, water solution
DOT Shipping name.....	Compound, Water Clarifying
Hazard Class.....	Not regulated
Date Revised.....	April 16, 1997

Section 2: Ingredient and Hazards

Hazardous Classification: none

Ingredients	Percent	Limits(TLV)

This product does not contain any reportable quantities of hazardous ingredients.

Section 3: Physical Data

Boiling Point.....	212°F
Specific Gravity.....	1.14
Vapor Pressure.....	<10 mm Hg 68°F
Evaporation Rate.....	<1 (WATER=1)
Vapor Density.....	n/a (AIR=1)
Measured pH (neat)....	5.0 - 7.0
Water Solubility.....	complete
Appearance.....	clear, amber liquid
Odor.....	light, characteristic

Abbreviation: n/a = not applicable

WWW_104(e)_017213

MATERIAL SAFETY DATA SHEET

Product.....> **P-250**

Section 4: Fire and Explosion Data

Flash Point,F,COC.....	>212°F
Flammable Limits.....	LEL: n/a UEL: n/a
Auto Ignition Temp....	n/a
Extinguishing Media...	water, carbon dioxide, dry or foam.
Special Procedures....	leakage will create a very slippery surface, use SCBA with full face shield.

Section 5: Health Hazard Data

* ROUTES OF EXPOSURE *	Primary route: Dermal
Eye Contact.....	repeated or prolonged contact may cause irritation.
Skin Contact.....	may cause irritation
Inhalation.....	possible headaches, nausea and respiratory tract irritation.
Oral.....	irritation of gastrointestinal tissue, nausea, vomiting.
* EMERGENCY FIRST AID *	
Eyes.....	flush with water 15 minutes, seek medical attention.
Skin.....	wash affected area with soap and water. Contact physician if irritation develops.
Inhalation.....	move to fresh air. If unconscious, administer artificial respiration or oxygen. Seek medical attention.
Ingestion.....	rinse out mouth with water and give 2-3 glasses of water. Get immediate medical attention.

Section 6: Reactivity Data

Stability.....	stable
Incompatibility.....	strong oxidizing agents.
Decomposition Products.	none
Hazardous Polymerization	will not occur

Abbreviation: n/a = not applicable

Product.....> **P-250**

Section 7: Environmental Protection Procedures

Spill..... cover liquid with absorbent material and shovel into closable containers. Do not flush away to sewers or any natural waterways.

Waste Disposal..... dispose of by following proper federal, state or local regulations where applicable.

Section 8: Control Measures/Special Protection

Respiratory Protection.. use with adequate ventilation.
Ventilation Recommended. provide local exhaust.
Protective Gloves..... chemical or solvent resistant material.
Eye Protection..... chemical goggles or face shield.
Other Equipment..... wear rubber apron, safety/eye wash nearby.
Work/Hygienic Practices: wash thoroughly after handling.

Section 9: ADDITIONAL INFORMATION

HMIS Rating Code: HMIS		
		0 = minimal
		1 = slight
Health.....	1	2 = moderate
Flammability.....	0	3 = serious
Reactivity.....	0	4 = severe
Personal Protection...	B	B = safety glasses and rubber gloves

The information provided relates to the specific material designated and may not be valid for such material used in combination with other materials outside the scope of intended usage. No representation, warranty or guarantee is made and it remains the user's responsibility to confirm by other investigation as to safe material application. We do not accept liability for loss or damage that may occur from the misuse of this information.

SECTION 1

Rev. (N|H)

MANUFACTURERS NAME: STAHL USA
ADDRESS: 13 CORWIN ST., P.O. BOX 3039,PEABODY,MA. 01960
EMERGENCY TELEPHONE NO.:
DAYS: /508/ 531-0371
NIGHTS: CHEMTREC 1-800-424-9300 (CHEM.EMERG, ONLY!)
PRODUCT NAME: P-4805

HMIS RATING

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C	EXPOSURE LIMITS OSHA (PEL) ACGIH (TLV)

THIS PRODUCT IS BELIEVED TO BE NON-HAZARDOUS UNDER OSHA DEFINITIONS

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

VAPOR DENSITY: NOT APPLICABLE MOSTLY WATER VAPOR
NOT APPLICABLE. MOSTLY WATER VAPOR.

BOILING RANGE: APPROX. 212 F
NOT APPLICABLE. MOSTLY WATER VAPOR.

PERCENT BY WEIGHT VOLATILE ORGANIC COMPOUNDS (VOC) : 0
WEIGHT PER GALLON: 10.80 POUNDS PER U.S. GALLON

SECTION 4-FIRE AND EXPLOSION DATA

FLASH POINT (CLOSED CUP) GREATER THAN 199 DEGREES F

EXTINGUISHING MEDIA

THIS IS A WATER BASED PRODUCT AND SHOULD NOT SUPPORT COMBUSTION.

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE KNOWN TO MANUFACTURER.

SPECIAL FIRE FIGHTING PROCEDURES

NONE KNOWN TO MANUFACTURER.

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -SEE SECTION 2

SECTION 5 - HEALTH HAZARD DATA - CONTINUED -

**THE P O T E N T I A L HEALTH HAZARDS IDENTIFIED BELOW WILL NOT EXPRESS THEMSELVES IF EXPOSURE IS ELIMINATED. THIS PRODUCT WILL NOT PRESENT AN A C T U A L HEALTH RISK IN THE WORKPLACE IF IT IS HANDLED IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICES AND IN ACCORD WITH THIS MSDS.

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR UNDER CERTAIN CONDITIONS. INDIVIDUALS WITH PRE-EXISTING SKIN OR RESPIRATORY DISORDERS MAY BE MORE SUSCEPTIBLE TO THESE EFFECTS.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT

WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT

FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.

INHALATION

REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION

SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.

OTHERS

SECTION 6 - REACTIVITY DATA

STABILITY

STABLE.

INCOMPATIBILITY

NO HAZARDOUS INCOMPATIBILITIES KNOWN TO MANUFACTURER.

HAZARDOUS DECOMPOSITION PRODUCTS

NONE KNOWN TO MANUFACTURER.

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

NONE KNOWN TO MANUFACTURER.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SECTION 7 - SPILL OR LEAK PROCEDURES - CONTINUED -

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.

IT MAY BE POSSIBLE TO FLUSH SPILLS TO SEWER, BUT THOSE HANDLING THE SPILL MUST DETERMINE IF THAT IS APPROPRIATE, AND IF IT IS IN COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. (SEE WASTE DISPOSAL)

WASTE DISPOSAL

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

USER RESPONSIBILITY FOR SPILLS AND WASTES

THE USER OF THIS PRODUCT WHO GENERATES A WASTE CONTAINING THIS PRODUCT IS SOLELY RESPONSIBLE FOR THAT WASTE.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

NONE REQUIRED WHEN USED WITH NORMAL GOOD VENTILATION UNDER NORMAL CONDITIONS OF USE.

VENTILATION

USE WITH ADEQUATE VENTILATION. LOCAL EXHAUST IS PREFERABLE, BUT GENERAL DILUTION VENTILATION MAY BE ADEQUATE.

PROTECTIVE GLOVES

PROTECTIVE GLOVES RECOMMENDED TO HELP PREVENT POSSIBLE EFFECTS OF SKIN CONTACT (SEE SECTION 5).

EYE PROTECTION

EYE PROTECTION SHOULD BE PROVIDED TO PREVENT A REASONABLE PROBABILITY OF EYE CONTACT.

OTHER PROTECTIVE EQUIPMENT

SECTION 8 -- SPECIAL PROTECTION INFORMATION - CONTINUED -

IT IS RECOMMENDED THAT A SAFETY SHOWER AND EYE WASH BE AVAILABLE WHEREVER THIS PRODUCT IS HANDLED OR USED.

SECTION 9 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

NORMAL GOOD HOUSEKEEPING AND GOOD INDUSTRIAL HYGIENE PROCEDURES SHOULD BE ADHERED TO. UNNECESSARY, EXCESSIVE, AND/OR PROLONGED PERSONAL CONTACT SHOULD BE AVOIDED. USE ONLY WITH ADEQUATE VENTILATION.

OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.

SECTION 10 -USER RESPONSIBILITY

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE.
MANUFACTURER SHOULD BE CONTACTED IF ADDITIONAL INFORMATION IS NEEDED REGARDING THIS PRODUCT

SECTION 1

21-360488

MANUFACTURERS NAME: STAHL USA
ADDRESS: 13 CORWIN ST., P.O. BOX 3039,PEABODY,MA. 01960
EMERGENCY TELEPHONE NO.:
DAYS: /508/ 531-0371
NIGHTS: CHEMTREC 1-800-424-9300 (CHEM.EMERG, ONLY!)
PRODUCT NAME: P-4809

HMIS RATING

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C	EXPOSURE LIMITS OSHA (PEL) ACGIH (TLV)
AMMONIUM HYDROXIDE	1.1	***	***	OSHA 50 PPM
CAS NO. 1336-21-6 SYN: AQUA AMMONIA				ACGIH 25 PPM
MORPHOLINE	.5	7.00	20.0	OSHA 20 PPM(SKIN)
CAS NO. 110-91-8 SYN: 1,4-OXAZINE,TETRAHYDRO				ACGIH 20 PPM(SKIN)

THIS PRODUCT CONTAINS AMMONIUM HYDROXIDE. AMMONIA GAS, MAY BE EMITTED BY THIS PRODUCT. THE CAS# FOR AMMONIA IS 7664-41-7. AMMONIA (7664-41-7) IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF "SARA".
ACGIH/OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR AMMONIA IS 35PPM.
OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR MORPHOLINE IS 30PPM.

*** NOT KNOWN TO MANUFACTURER

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

VAPOR DENSITY: NOT APPLICABLE MOSTLY WATER VAPOR
NOT APPLICABLE. MOSTLY WATER VAPOR.

BOILING RANGE: APPROX. 212 F
NOT APPLICABLE. MOSTLY WATER VAPOR.

PERCENT BY WEIGHT VOLATILE ORGANIC COMPOUNDS (VOC) : 4
WEIGHT PER GALLON: 8.30 POUNDS PER U.S. GALLON

SECTION 4-FIRE AND EXPLOSION DATA

FLASH POINT (CLOSED CUP) GREATER THAN 199 DEGREES F

EXTINGUISHING MEDIA

SECTION 4-FIRE AND EXPLOSION DATA - CONTINUED -

THIS IS A WATER BASED PRODUCT AND SHOULD NOT SUPPORT COMBUSTION.

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE KNOWN TO MANUFACTURER.
THIS PRODUCT CONTAINS MORPHOLINE (SEE SECTION 2) WHICH HAS A FLASH POINT OF 95 DEGREES F, CLOSED CUP.

SPECIAL FIRE FIGHTING PROCEDURES

SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN BY FIREFIGHTERS OR OTHERS EXPOSED TO THE VAPORS FROM THIS PRODUCT IN A FIRE SITUATION (FOR INSTANCE IF THE CONTAINER RUPTURES FROM SEVERE HEAT EXPOSURE).

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -SEE SECTION 2

EFFECTS OF OVEREXPOSURE

** THE P O T E N T I A L HEALTH HAZARDS IDENTIFIED BELOW WILL NOT PRESENT AN ACTUAL HEALTH RISK IN THE WORKPLACE, IF EXPOSURE IS ELIMINATED. ALSO, THESE HAZARDS ARE BASED UPON THE HAZARDS OF THE COMPONENTS OF THE PRODUCT. IN SOME CASES, THESE COMPONENTS MAY BE CONTAINED IN A SMALL PERCENTAGE, WHICH WILL REDUCE THE DEGREE OF RISK THAT THIS POTENTIAL HAZARD COULD ACTUALLY MANIFEST ITSELF.

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR UNDER CERTAIN CONDITIONS OF OVEREXPOSURE. INDIVIDUALS WITH PRE-EXISTING SKIN OR RESPIRATORY DISORDERS MAY BE MORE SUSCEPTIBLE TO THESE EFFECTS.
LIQUID MAY CAUSE EYE BURNS.
LIQUID MAY CAUSE PERMANENT EYE INJURY.
MORPHOLINE (SEE SECTION 2) MAY BE CORROSIVE TO SKIN, CAUSING SEVERE DAMAGE, WITH BURNS AND BLISTERING. IF THE PERCENTAGE OF MORPHOLINE INDICATED IN SECTION 2 IS LOW, THE LIKELIHOOD OF THESE EFFECTS IS LESSENED.
INHALATION OF MORPHOLINE VAPORS (SEE SECTION 2) MAY CAUSE TEMPORARY HAZY VISION WITH "HALO" EFFECTS.
MAY BE HARMFUL IF INHALED.
POSSIBILITY OF LIVER AND/OR KIDNEY DAMAGE FROM OVEREXPOSURE.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT
WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT

SECTION 5 - HEALTH HAZARD DATA - CONTINUED -

FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.

INHALATION

REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION

SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.

OTHERS

SECTION 6 - REACTIVITY DATA

STABILITY

STABLE.

INCOMPATIBILITY

STRONG MINERAL ACIDS.

HAZARDOUS DECOMPOSITION PRODUCTS

COMBUSTION MAY YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE. AMMONIA (THERMAL DECOMPOSITION).

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

NONE KNOWN TO MANUFACTURER.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.

CONTAINS MORPHOLINE, WHICH IS A FLAMMABLE LIQUID (SEE NOTE IN SECTION 4). APPROPRIATE PRECAUTIONS MUST BE TAKEN. WHAT IS APPROPRIATE WILL DEPEND PARTLY ON THE PERCENTAGE OF MORPHOLINE CONTAINED IN THIS PRODUCT, AS SHOWN IN SECTION 2.

SECTION 7 - SPILL OR LEAK PROCEDURES - CONTINUED -

WASTE DISPOSAL

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

USER RESPONSIBILITY FOR SPILLS AND WASTES

THE USER OF THIS PRODUCT WHO GENERATES A WASTE CONTAINING THIS PRODUCT IS SOLELY RESPONSIBLE FOR THAT WASTE.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

IN RESTRICTED VENTILATION AREAS USE NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATORS FOR VAPORS,OR COMBINATION CHEMICAL CARTRIDGE AND SPRAY MIST FILTERS FOR MISTS FROM SPRAYING. IN CONFINED AREAS OR IN CASE OF VERY HIGH CONCENTRATIONS, AS FROM SPILLS INDOORS, USE NIOSH-APPROVED AIR-SUPPLIED OR SELF-CONTAINED BREATHING APPARATUS. THE HAZARDOUS INGREDIENTS LISTED IN SECTION 2 SHOULD BE CONSIDERED IN CHOOSING THE PROPER RESPIRATORY PROTECTION. FOR SOLVENTS, ORGANIC VAPOR CARTRIDGES ARE GENERALLY APPROPRIATE.

VENTILATION

PROVIDE GENERAL DILUTION VENTILATION OR LOCAL EXHAUST AS NEEDED TO KEEP VAPOR CONCENTRATIONS OF THE INGREDIENTS LISTED IN SECTION 2 TO BELOW THEIR TLV'S. LOCAL EXHUAST IS ESSENTIAL FOR SPRAYING OPERATIONS. IF EFFECTS OF OVEREXPOSURE LISTED IN SECTION 5 ARE EVIDENT, VENTILATION MAY BE INADEQUATE.

PROTECTIVE GLOVES

IMPERMEABLE GLOVES REQUIRED.

EYE PROTECTION

SPLASH-PROOF CHEMICAL GOGGLES, OR EQUIVALENT EYE PROTECTION.

OTHER PROTECTIVE EQUIPMENT

IT IS RECOMMENDED THAT A SAFETY SHOWER AND EMERGENCY EYE WASH FOUNTAIN BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE (THAT IS, WHEREVER THIS PRODUCT IS HANDLED OR USED).

SECTION 8 - SPECIAL PROTECTION INFORMATION - CONTINUED -

SECTION 9 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

NORMAL GOOD HOUSEKEEPING, INDUSTRIAL HYGIENE, AND PERSONAL HYGIENE PRACTICES SHOULD BE ADHERED TO. UNNECESSARY, EXCESSIVE, AND/OR PROLONGED PERSONAL CONTACT SHOULD BE AVOIDED. USE ONLY WITH ADEQUATE VENTILATION. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING AND WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTLY OF SOAP AND WATER.

IF AMMONIUM HYDROXIDE CONTENT SHOWN IN SECTION 2 IS HIGH,KEEP AWAY FROM FLAMMABLE LIQUID OR FORMALDEHYDE STORAGE. AVOID BREATHING VAPORS, AS THEY COULD CAUSE SEVERE RESPIRATORY IRRITATION.

OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.
DUE TO PRESENCE OF MORPHOLINE IN THIS PRODUCT (SEE SECTION 2), DO NOT USE SODIUM NITRITE OR OTHER NITROSATING AGENTS IN FORMULATIONS CONTAINING THIS PRODUCT. THE SUSPECTED CARCINOGENS NITROSAMINES COULD BE FORMED.
WITH REGARD TO MORPHOLINE, WHICH IS CONTAINED IN THIS PRODUCT (SEE SECTION 2) THE FOLLOWING ARE EXCERPTS FROM A LETTER PUBLISHED BY TEXACO, DATED JULY 14, 1982:

RESULTS OF RECENT TESTS CONDUCTED BY TEXACO INDICATE THAT MORPHOLINE MAY BE WEAKLY MUTAGENIC. THESE TESTS ARE OF THE TYPE USUALLY DESCRIBED AS "SHORT TERM IN VITRO BIO ASSAYS" OF WHICH THE AMES TEST IS THE BEST KNOWN EXAMPLE. IT SHOULD BE EMPHASIZED THAT A MUTAGENIC COMPOUND IS NOT NECESSARILY CARCINOGENIC...

...NEVERTHELESS, IT WOULD BE PRUDENT TO MINIMIZE EXPOSURE TO MORPHOLINE, AND GOOD INDUSTRIAL HYGIENE PRACTICES SHOULD BE ABLE TO CONTROL AIRBORNE CONCENTRATIONS TO LEVELS LOWER THAN THAN THE PUBLISHED TLV.

SECTION 10 -USER RESPONSIBILITY

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE.
MANUFACTURER SHOULD BE CONTACTED IF ADDITIONAL INFORMATION IS NEEDED REGARDING THIS PRODUCT

New

SECTION 1

MANUFACTURERS NAME: STAHL USA
ADDRESS: 13 CORWIN ST., P.O. BOX 3039,PEABODY,MA, 01960
EMERGENCY TELEPHONE NO.:
DAYS: /508/ 531-0371
NIGHTS: CHEMTREC 1-800-424-9300 (CHEM.EMERG, ONLY!)
PRODUCT NAME: P-4810

HMIS RATING

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C	EXPOSURE LIMITS OSHA (PEL) ACGIH (TLV)
AMMONIUM HYDROXIDE	.5	***	***	OSHA 50 PPM
CAS NO. 1336-21-6 SYN: AQUA AMMONIA				ACGIH 25 PPM

THIS PRODUCT CONTAINS AMMONIUM HYDROXIDE. AMMONIA GAS, MAY BE EMITTED BY THIS PRODUCT. THE CAS# FOR AMMONIA IS 7664-41-7. AMMONIA (7664-41-7) IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF "SARA".
ACGIH/OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR AMMONIA IS 35PPM.

*** NOT KNOWN TO MANUFACTURER

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

VAPOR DENSITY: NOT APPLICABLE MOSTLY WATER VAPOR
NOT APPLICABLE. MOSTLY WATER VAPOR.

BOILING RANGE: APPROX. 212 F
NOT APPLICABLE. MOSTLY WATER VAPOR.

PERCENT BY WEIGHT VOLATILE ORGANIC COMPOUNDS (VOC) : 2
WEIGHT PER GALLON: 8.30 POUNDS PER U.S. GALLON

SECTION 4-FIRE AND EXPLOSION DATA

FLASH POINT (CLOSED CUP) GREATER THAN 199 DEGREES F

EXTINGUISHING MEDIA

THIS IS A WATER BASED PRODUCT AND SHOULD NOT SUPPORT COMBUSTION.

UNUSUAL FIRE AND EXPLOSION HAZARDS

SECTION 4-FIRE AND EXPLOSION DATA - CONTINUED -

NONE KNOWN TO MANUFACTURER.

SPECIAL FIRE FIGHTING PROCEDURES

SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN BY FIREFIGHTERS OR OTHERS EXPOSED TO THE VAPORS FROM THIS PRODUCT IN A FIRE SITUATION (FOR INSTANCE IF THE CONTAINER RUPTURES FROM SEVERE HEAT EXPOSURE).
NONE KNOWN TO MANUFACTURER.

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -SEE SECTION 2

EFFECTS OF OVEREXPOSURE

**THE P O T E N T I A L HEALTH HAZARDS IDENTIFIED BELOW WILL NOT EXPRESS THEMSELVES IF EXPOSURE IS ELIMINATED. THIS PRODUCT WILL NOT PRESENT AN A C T U A L HEALTH RISK IN THE WORKPLACE IF IT IS HANDLED IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICES AND IN ACCORD WITH THIS MSDS.

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR UNDER CERTAIN CONDITIONS. INDIVIDUALS WITH PRE-EXISTING SKIN OR RESPIRATORY DISORDERS MAY BE MORE SUSCEPTIBLE TO THESE EFFECTS.
LIQUID MAY CAUSE EYE BURNS.
LIQUID MAY CAUSE PERMANENT EYE INJURY.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT
WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT
FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.

INHALATION
REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION
SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.

OTHERS

SECTION 6 - REACTIVITY DATA

STABILITY

SECTION 6 - REACTIVITY DATA - CONTINUED -

STABLE.

INCOMPATIBILITY

NO HAZARDOUS INCOMPATIBILITIES KNOWN TO MANUFACTURER.

HAZARDOUS DECOMPOSITION PRODUCTS

NONE KNOWN TO MANUFACTURER.

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

NONE KNOWN TO MANUFACTURER.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.

WASTE DISPOSAL

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

USER RESPONSIBILITY FOR SPILLS AND WASTES

THE USER OF THIS PRODUCT WHO GENERATES A WASTE CONTAINING THIS PRODUCT IS SOLELY RESPONSIBLE FOR THAT WASTE.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

SECTION 8 - SPECIAL PROTECTION INFORMATION - CONTINUED -

IN RESTRICTED VENTILATION AREAS USE NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATORS FOR VAPORS,OR COMBINATION CHEMICAL CARTRIDGE AND SPRAY MIST FILTERS FOR MISTS FROM SPRAYING. IN CONFINED AREAS OR IN CASE OF VERY HIGH CONCENTRATIONS, AS FROM SPILLS INDOORS, USE NIOSH-APPROVED AIR-SUPPLIED OR SELF-CONTAINED BREATHING APPARATUS. THE HAZARDOUS INGREDIENTS LISTED IN SECTION 2 SHOULD BE CONSIDERED IN CHOOSING THE PROPER RESPIRATORY PROTECTION. FOR SOLVENTS, ORGANIC VAPOR CARTRIDGES ARE GENERALLY APPROPRIATE.

VENTILATION

PROVIDE GENERAL DILUTION VENTILATION OR LOCAL EXHAUST AS NEEDED TO KEEP VAPOR CONCENTRATIONS OF THE INGREDIENTS LISTED IN SECTION 2 TO BELOW THEIR TLV'S. LOCAL EXHUAST IS ESSENTIAL FOR SPRAYING OPERATIONS. IF EFFECTS OF OVEREXPOSURE LISTED IN SECTION 5 ARE EVIDENT, VENTILATION MAY BE INADEQUATE.

PROTECTIVE GLOVES

PROTECTIVE GLOVES RECOMMENDED TO HELP PREVENT POSSIBLE EFFECTS OF SKIN CONTACT (SEE SECTION 5).

EYE PROTECTION

SPLASH-PROOF CHEMICAL GOGGLES, OR EQUIVALENT EYE PROTECTION.

OTHER PROTECTIVE EQUIPMENT

IT IS RECOMMENDED THAT A SAFETY SHOWER AND EYE WASH BE AVAILABLE WHEREVER THIS PRODUCT IS HANDLED OR USED.

SECTION 9 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

NORMAL GOOD HOUSEKEEPING AND GOOD INDUSTRIAL HYGIENE PROCEDURES SHOULD BE ADHERED TO. UNNECESSARY, EXCESSIVE, AND/OR PROLONGED PERSONAL CONTACT SHOULD BE AVOIDED. USE ONLY WITH ADEQUATE VENTILATION.

IF AMMONIUM HYDROXIDE CONTENT SHOWN IN SECTION 2 IS HIGH,KEEP AWAY FROM FLAMMABLE LIQUID OR FORMALDEHYDE STORAGE. AVOID BREATHING VAPORS, AS THEY COULD CAUSE SEVERE RESPIRATORY IRRITATION.

OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.

SECTION 10 -USER RESPONSIBILITY

SECTION 10 -USER RESPONSIBILITY - CONTINUED -

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE.
MANUFACTURER SHOULD BE CONTACTED IF ADDITIONAL INFORMATION IS NEEDED REGARDING THIS PRODUCT

New

SECTION 1

MANUFACTURERS NAME: STAHL USA
ADDRESS: 13 CORWIN ST., P.O. BOX 3039,PEABODY,MA. 01960
EMERGENCY TELEPHONE NO.:
DAYS: /508/ 531-0371
NIGHTS: CHEMTREC 1-800-424-9300 (CHEM.EMERG. ONLY!)
PRODUCT NAME: P-4812

HMIS RATING

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C	EXPOSURE LIMITS OSHA (PEL) ACGIH (TLV)
AMMONIUM HYDROXIDE CAS NO. 1336-21-6 SYN: AQUA AMMONIA	.4	***	***	OSHA 50 PPM ACGIH 25 PPM
MORPHOLINE CAS NO. 110-91-8 SYN: 1,4-OXAZINE,TETRAHYDRO	.4	7.00	20.0	OSHA 20 PPM(SKIN) ACGIH 20 PPM(SKIN)
CARBON BLACK CAS NO. 1333-86-4 SYN: CARBON BLACK	2.9	*	*	OSHA 3.5 MG/CU M ACGIH 3.5 MG/CU M

THIS PRODUCT CONTAINS AMMONIUM HYDROXIDE. AMMONIA GAS, MAY BE EMITTED BY THIS PRODUCT. THE CAS# FOR AMMONIA IS 7664-41-7. AMMONIA (7664-41-7) IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF "SARA".
ACGIH/OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR AMMONIA IS 35PPM.
OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR MORPHOLINE IS 30PPM.

*** NOT KNOWN TO MANUFACTURER
* NOT APPLICABLE

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

VAPOR DENSITY: NOT APPLICABLE MOSTLY WATER VAPOR
NOT APPLICABLE. MOSTLY WATER VAPOR.

BOILING RANGE: APPROX. 212 F
NOT APPLICABLE. MOSTLY WATER VAPOR.

PERCENT BY WEIGHT VOLATILE ORGANIC COMPOUNDS (VOC) : 3
WEIGHT PER GALLON: 8.40 POUNDS PER U.S. GALLON

SECTION 4-FIRE AND EXPLOSION DATA

FLASH POINT (CLOSED CUP) GREATER THAN 199 DEGREES F

SECTION 4-FIRE AND EXPLOSION DATA - CONTINUED -

THIS IS A WATER BASED PRODUCT AND SHOULD NOT SUPPORT COMBUSTION.

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE KNOWN TO MANUFACTURER.
THIS PRODUCT CONTAINS MORPHOLINE (SEE SECTION 2) WHICH HAS A FLASH POINT OF 95 DEGREES F, CLOSED CUP.

SPECIAL FIRE FIGHTING PROCEDURES

SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN BY FIREFIGHTERS OR OTHERS EXPOSED TO THE VAPORS FROM THIS PRODUCT IN A FIRE SITUATION (FOR INSTANCE IF THE CONTAINER RUPTURES FROM SEVERE HEAT EXPOSURE).
NONE KNOWN TO MANUFACTURER.

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -SEE SECTION 2

EFFECTS OF OVEREXPOSURE

**THE P O T E N T I A L HEALTH HAZARDS IDENTIFIED BELOW WILL NOT EXPRESS THEMSELVES IF EXPOSURE IS ELIMINATED. THIS PRODUCT WILL NOT PRESENT AN A C T U A L HEALTH RISK IN THE WORKPLACE IF IT IS HANDLED IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICES AND IN ACCORD WITH THIS MSDS.

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR UNDER CERTAIN CONDITIONS. INDIVIDUALS WITH PRE-EXISTING SKIN OR RESPIRATORY DISORDERS MAY BE MORE SUSCEPTIBLE TO THESE EFFECTS.
LIQUID MAY CAUSE EYE BURNS.
LIQUID MAY CAUSE PERMANENT EYE INJURY.

MORPHOLINE (SEE SECTION 2) MAY BE CORROSIVE TO SKIN, CAUSING SEVERE DAMAGE, WITH BURNS AND BLISTERING. IF THE PERCENTAGE OF MORPHOLINE INDICATED IN SECTION 2 IS LOW, THE LIKELIHOOD OF THESE EFFECTS IS LESSENED.
INHALATION OF MORPHOLINE VAPORS (SEE SECTION 2) MAY CAUSE TEMPORARY HAZY VISION WITH "HALO" EFFECTS.
MAY BE HARMFUL IF INHALED.
POSSIBILITY OF LIVER AND/OR KIDNEY DAMAGE FROM OVEREXPOSURE.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT
WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT
FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT

SECTION 5 - HEALTH HAZARD DATA - CONTINUED -

A PHYSICIAN.

INHALATION

REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION

SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.

OTHERS

SECTION 6 - REACTIVITY DATA

STABILITY

STABLE.

INCOMPATIBILITY

STRONG MINERAL ACIDS.

HAZARDOUS DECOMPOSITION PRODUCTS

COMBUSTION MAY YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE. AMMONIA (THERMAL DECOMPOSITION).

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

NONE KNOWN TO MANUFACTURER.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.
CONTAINS MORPHOLINE, WHICH IS A FLAMMABLE LIQUID (SEE NOTE IN SECTION 4). APPROPRIATE PRECAUTIONS MUST BE TAKEN. WHAT IS APPROPRIATE WILL DEPEND PARTLY ON THE PERCENTAGE OF MORPHOLINE CONTAINED IN THIS PRODUCT, AS SHOWN IN SECTION 2.

WASTE DISPOSAL

SECTION 7 - SPILL OR LEAK PROCEDURES - CONTINUED -

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

USER RESPONSIBILITY FOR SPILLS AND WASTES

THE USER OF THIS PRODUCT WHO GENERATES A WASTE CONTAINING THIS PRODUCT IS SOLELY RESPONSIBLE FOR THAT WASTE.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

IN RESTRICTED VENTILATION AREAS USE NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATORS FOR VAPORS,OR COMBINATION CHEMICAL CARTRIDGE AND SPRAY MIST FILTERS FOR MISTS FROM SPRAYING. IN CONFINED AREAS OR IN CASE OF VERY HIGH CONCENTRATIONS, AS FROM SPILLS INDOORS, USE NIOSH-APPROVED AIR-SUPPLIED OR SELF-CONTAINED BREATHING APPARATUS. THE HAZARDOUS INGREDIENTS LISTED IN SECTION 2 SHOULD BE CONSIDERED IN CHOOSING THE PROPER RESPIRATORY PROTECTION. FOR SOLVENTS, ORGANIC VAPOR CARTRIDGES ARE GENERALLY APPROPRIATE.

VENTILATION

PROVIDE GENERAL DILUTION VENTILATION OR LOCAL EXHAUST AS NEEDED TO KEEP VAPOR CONCENTRATIONS OF THE INGREDIENTS LISTED IN SECTION 2 TO BELOW THEIR TLV'S. LOCAL EXHUAST IS ESSENTIAL FOR SPRAYING OPERATIONS. IF EFFECTS OF OVEREXPOSURE LISTED IN SECTION 5 ARE EVIDENT, VENTILATION MAY BE INADEQUATE.

PROTECTIVE GLOVES

IMPERMEABLE GLOVES REQUIRED.

EYE PROTECTION

SPLASH-PROOF CHEMICAL GOGGLES, OR EQUIVALENT EYE PROTECTION.

OTHER PROTECTIVE EQUIPMENT

IT IS RECOMMENDED THAT A SAFETY SHOWER AND EYE WASH BE AVAILABLE WHEREVER THIS PRODUCT IS HANDLED OR USED.

SECTION 9 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

SECTION 9 - SPECIAL PRECAUTIONS - CONTINUED -

NORMAL GOOD HOUSEKEEPING AND GOOD INDUSTRIAL HYGIENE PROCEDURES SHOULD BE ADHERED TO. UNNECESSARY, EXCESSIVE, AND/OR PROLONGED PERSONAL CONTACT SHOULD BE AVOIDED. USE ONLY WITH ADEQUATE VENTILATION.

IF AMMONIUM HYDROXIDE CONTENT SHOWN IN SECTION 2 IS HIGH,KEEP AWAY FROM FLAMMABLE LIQUID OR FORMALDEHYDE STORAGE. AVOID BREATHING VAPORS, AS THEY COULD CAUSE SEVERE RESPIRATORY IRRITATION.

OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.
DUE TO PRESENCE OF MORPHOLINE IN THIS PRODUCT (SEE SECTION 2), DO NOT USE SODIUM NITRITE OR OTHER NITROSATING AGENTS IN FORMULATIONS CONTAINING THIS PRODUCT. THE SUSPECTED CARCINOGENS NITROSAMINES COULD BE FORMED.
WITH REGARD TO MORPHOLINE, WHICH IS CONTAINED IN THIS PRODUCT (SEE SECTION 2) THE FOLLOWING ARE EXCERPTS FROM A LETTER PUBLISHED BY TEXACO, DATED JULY 14, 1982:

RESULTS OF RECENT TESTS CONDUCTED BY TEXACO INDICATE THAT MORPHOLINE MAY BE WEAKLY MUTAGENIC. THESE TESTS ARE OF THE TYPE USUALLY DESCRIBED AS "SHORT TERM IN VITRO BIO ASSAYS" OF WHICH THE AMES TEST IS THE BEST KNOWN EXAMPLE. IT SHOULD BE EMPHASIZED THAT A MUTAGENIC COMPOUND IS NOT NECESSARILY CARCINOGENIC...

...NEVERTHELESS, IT WOULD BE PRUDENT TO MINIMIZE EXPOSURE TO MORPHOLINE, AND GOOD INDUSTRIAL HYGIENE PRACTICES SHOULD BE ABLE TO CONTROL AIRBORNE CONCENTRATIONS TO LEVELS LOWER THAN THAN THE PUBLISHED TLV.

CONTAINS CARBON BLACK WHICH MAY BE HAZARDOUS WHEN BREATHED AS A DUST. NOT BELIEVED TO PRESENT ANY SIGNIFICANT HAZARDS WHEN DISPERSED IN A LIQUID.

SECTION 10 -USER RESPONSIBILITY

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE.
MANUFACTURER SHOULD BE CONTACTED IF ADDITIONAL INFORMATION IS NEEDED REGARDING THIS PRODUCT

SECTION 1

MANUFACTURERS NAME: STAHL USA
ADDRESS: 13 CORWIN ST., P.O. BOX 3039,PEABODY,MA. 01960
EMERGENCY TELEPHONE NO.:
DAYS: /508/ 531-0371
NIGHTS: CHEMTREC 1-800-424-9300 (CHEM.EMERG, ONLY!)
PRODUCT NAME: P-4813

HMIS RATING

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C	EXPOSURE LIMITS OSHA (PEL) ACGIH (TLV)
MMONIUM HYDROXIDE CAS NO. 1336-21-6 SYN: AQUA AMMONIA	.3	***	***	OSHA 50 PPM ACGIH 25 PPM
ORPHOLINE CAS NO. 110-91-8 SYN: 1,4-OXAZINE,TETRAHYDRO	.7	7.00	20.0	OSHA 20 PPM(SKIN) ACGIH 20 PPM(SKIN)
ICKEL COMPOUND CAS NO. SYN: NICKEL COMPOUND (1)	.5	*	*	OSHA 1MG/M3 ACGIH 0.05MG/M3

THIS PRODUCT CONTAINS AMMONIUM HYDROXIDE. AMMONIA GAS, MAY BE EMITTED BY THIS PRODUCT. THE CAS# FOR AMMONIA IS 7664-41-7. AMMONIA (7664-41-7) IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF "SARA".
(1) THIS PRODUCT CONTAINS A "TOXIC" CHEMICAL OR CHEMICALS SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313 OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) OF 1986 AND 40 CFR PART 372. THESE CHEMICALS ARE IDENTIFIED BY (1) AT THE END OF THE SYNONYM ABOVE.
ACGIH/OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR AMMONIA IS 35PPM.
OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR MORPHOLINE IS 30PPM.

*** NOT KNOWN TO MANUFACTURER
* NOT APPLICABLE

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

APOR DENSITY: NOT APPLICABLE MOSTLY WATER VAPOR
NOT APPLICABLE. MOSTLY WATER VAPOR.

OILING RANGE: APPROX. 212 F
NOT APPLICABLE. MOSTLY WATER VAPOR.

ERCENT BY WEIGHT VOLATILE ORGANIC COMPOUNDS (VOC) : 3
EIGHT PER GALLON: 8.56 POUNDS PER U.S. GALLON

FLASH POINT (CLOSED CUP) GREATER THAN 199 DEGREES F

EXTINGUISHING MEDIA

SECTION 4-FIRE AND EXPLOSION DATA - CONTINUED -

THIS PRODUCT IS NOT EXPECTED TO SUPPORT COMBUSTION UNDER MOST CIRCUMSTANCES. IF FIRE DOES OCCUR, USE FOAM, DRY CHEMICAL, OR CARBON DIOXIDE TO EXTINGUISH.

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE KNOWN TO MANUFACTURER.
THIS PRODUCT CONTAINS MORPHOLINE (SEE SECTION 2) WHICH HAS A FLASH POINT OF 95 DEGREES F, CLOSED CUP.

SPECIAL FIRE FIGHTING PROCEDURES

SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN BY FIREFIGHTERS OR OTHERS EXPOSED TO THE VAPORS FROM THIS PRODUCT IN A FIRE SITUATION (FOR INSTANCE IF THE CONTAINER RUPTURES FROM SEVERE HEAT EXPOSURE).

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -SEE SECTION 2

EFFECTS OF OVEREXPOSURE

** THE P O T E N T I A L HEALTH HAZARDS IDENTIFIED BELOW WILL NOT PRESENT AN ACTUAL HEALTH RISK IN THE WORKPLACE, IF EXPOSURE IS ELIMINATED. ALSO, THESE HAZARDS ARE BASED UPON THE HAZARDS OF THE COMPONENTS OF THE PRODUCT. IN SOME CASES, THESE COMPONENTS MAY BE CONTAINED IN A SMALL PERCENTAGE, WHICH WILL REDUCE THE DEGREE OF RISK THAT THIS POTENTIAL HAZARD COULD ACTUALLY MANIFEST ITSELF.

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR UNDER CERTAIN CONDITIONS OF OVEREXPOSURE. INDIVIDUALS WITH PRE-EXISTING SKIN OR RESPIRATORY DISORDERS MAY BE MORE SUSCEPTIBLE TO THESE EFFECTS.
LIQUID MAY CAUSE EYE BURNS.
LIQUID MAY CAUSE PERMANENT EYE INJURY.
MORPHOLINE (SEE SECTION 2) MAY BE CORROSIVE TO SKIN, CAUSING SEVERE DAMAGE, WITH BURNS AND BLISTERING. IF THE PERCENTAGE OF MORPHOLINE INDICATED IN SECTION 2 IS LOW, THE LIKELIHOOD OF THESE EFFECTS IS LESSENED.
METALLIC NICKEL AND CERTAIN NICKEL COMPOUNDS CAN CAUSE SENSITIZATION DERMATITIS PRODUCING SKIN ERUPTIONS, REDDENING AND ITCHING.
INHALATION OF MORPHOLINE VAPORS (SEE SECTION 2) MAY CAUSE TEMPORARY HAZY VISION WITH "HALO" EFFECTS.
MAY BE HARMFUL IF INHALED.
POSSIBILITY OF LIVER AND/OR KIDNEY DAMAGE FROM OVEREXPOSURE.
IN VIEW OF THE GENERAL PROPERTIES OF ISOCYANATES, THIS PRODUCT SHOULD BE CONSIDERED AS A POSSIBLE RISK OF EYE AND RESPIRATORY TRACT IRRITATION AND RESPIRATORY SENSITIZATION (ASTHMA) AFTER

SECTION 5 - HEALTH HAZARD DATA - CONTINUED -

REPEATED EXPOSURE OR IN SUBJECTS WHO ARE SENSITIVE OR WHO HAVE ALREADY BEEN SENSITIZED BY OTHER ISOCYANATES.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT
WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT
FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.

INHALATION
REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION
SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.

OTHERS

SECTION 6 - REACTIVITY DATA

STABILITY
STABLE.

INCOMPATIBILITY

STRONG MINERAL ACIDS.

HAZARDOUS DECOMPOSITION PRODUCTS

COMBUSTION MAY YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE. AMMONIA (THERMAL DECOMPOSITION).

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

NONE KNOWN TO MANUFACTURER.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SECTION 7 - SPILL OR LEAK PROCEDURES - CONTINUED -

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.
CONTAINS MORPHOLINE, WHICH IS A FLAMMABLE LIQUID (SEE NOTE IN SECTION 4). APPROPRIATE PRECAUTIONS MUST BE TAKEN. WHAT IS APPROPRIATE WILL DEPEND PARTLY ON THE PERCENTAGE OF MORPHOLINE CONTAINED IN THIS PRODUCT, AS SHOWN IN SECTION 2.

WASTE DISPOSAL

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

USER RESPONSIBILITY FOR SPILLS AND WASTES

THE USER OF THIS PRODUCT WHO GENERATES A WASTE CONTAINING THIS PRODUCT IS SOLELY RESPONSIBLE FOR THAT WASTE.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

IN RESTRICTED VENTILATION AREAS USE NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATORS FOR VAPORS,OR COMBINATION CHEMICAL CARTRIDGE AND SPRAY MIST FILTERS FOR MISTS FROM SPRAYING. IN CONFINED AREAS OR IN CASE OF VERY HIGH CONCENTRATIONS, AS FROM SPILLS INDOORS, USE NIOSH-APPROVED AIR-SUPPLIED OR SELF-CONTAINED BREATHING APPARATUS. THE HAZARDOUS INGREDIENTS LISTED IN SECTION 2 SHOULD BE CONSIDERED IN CHOOSING THE PROPER RESPIRATORY PROTECTION. FOR SOLVENTS, ORGANIC VAPOR CARTRIDGES ARE GENERALLY APPROPRIATE.

VENTILATION

PROVIDE GENERAL DILUTION VENTILATION OR LOCAL EXHAUST AS NEEDED TO KEEP VAPOR CONCENTRATIONS OF THE INGREDIENTS LISTED IN SECTION 2 TO BELOW THEIR TLV'S. LOCAL EXHUAST IS ESSENTIAL FOR SPRAYING OPERATIONS. IF EFFECTS OF OVEREXPOSURE LISTED IN SECTION 5 ARE EVIDENT, VENTILATION MAY BE INADEQUATE.

PROTECTIVE GLOVES

IMPERMEABLE GLOVES REQUIRED.

SECTION 8 -- SPECIAL PROTECTION INFORMATION - CONTINUED -

EYE PROTECTION

SPLASH-PROOF CHEMICAL GOGGLES, OR EQUIVALENT EYE PROTECTION.

OTHER PROTECTIVE EQUIPMENT

IT IS RECOMMENDED THAT A SAFETY SHOWER AND EMERGENCY EYE WASH FOUNTAIN BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE (THAT IS, WHEREVER THIS PRODUCT IS HANDLED OR USED).

SECTION 9 -- SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

NORMAL GOOD HOUSEKEEPING, INDUSTRIAL HYGIENE, AND PERSONAL HYGIENE PRACTICES SHOULD BE ADHERED TO. UNNECESSARY, EXCESSIVE, AND/OR PROLONGED PERSONAL CONTACT SHOULD BE AVOIDED. USE ONLY WITH ADEQUATE VENTILATION. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING AND WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTLY OF SOAP AND WATER.

IF AMMONIUM HYDROXIDE CONTENT SHOWN IN SECTION 2 IS HIGH,KEEP AWAY FROM FLAMMABLE LIQUID OR FORMALDEHYDE STORAGE. AVOID BREATHING VAPORS, AS THEY COULD CAUSE SEVERE RESPIRATORY IRRITATION.

OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.
DUE TO PRESENCE OF MORPHOLINE IN THIS PRODUCT (SEE SECTION 2), DO NOT USE SODIUM NITRITE OR OTHER NITROSATING AGENTS IN FORMULATIONS CONTAINING THIS PRODUCT. THE SUSPECTED CARCINOGENS NITROSAMINES COULD BE FORMED.
WITH REGARD TO MORPHOLINE, WHICH IS CONTAINED IN THIS PRODUCT (SEE SECTION 2) THE FOLLOWING ARE EXCERPTS FROM A LETTER PUBLISHED BY TEXACO, DATED JULY 14, 1982:

RESULTS OF RECENT TESTS CONDUCTED BY TEXACO INDICATE THAT MORPHOLINE MAY BE WEAKLY MUTAGENIC. THESE TESTS ARE OF THE TYPE USUALLY DESCRIBED AS "SHORT TERM IN VITRO BIO ASSAYS" OF WHICH THE AMES TEST IS THE BEST KNOWN EXAMPLE. IT SHOULD BE EMPHASIZED THAT A MUTAGENIC COMPOUND IS NOT NECESSARILY CARCINOGENIC...

...NEVERTHELESS, IT WOULD BE PRUDENT TO MINIMIZE EXPOSURE TO MORPHOLINE, AND GOOD INDUSTRIAL HYGIENE PRACTICES SHOULD BE ABLE TO CONTROL AIRBORNE CONCENTRATIONS TO LEVELS LOWER THAN THAN THE PUBLISHED TLV.

SECTION 10 -USER RESPONSIBILITY

SECTION 10 -USER RESPONSIBILITY - CONTINUED -

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE.
MANUFACTURER SHOULD BE CONTACTED IF ADDITIONAL INFORMATION IS NEEDED REGARDING THIS PRODUCT

SECTION 1

New

MANUFACTURERS NAME: STAHL USA
ADDRESS: 13 CORWIN ST., P.O. BOX 3039,PEABODY,MA. 01960
EMERGENCY TELEPHONE NO.:
DAYS: /508/ 531-0371
NIGHTS: CHEMTREC 1-800-424-9300 (CHEM.EMERG, ONLY!)
PRODUCT NAME: P-4822

HMIS RATING

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C	EXPOSURE LIMITS OSHA (PEL) ACGIH (TLV)
AMMONIUM HYDROXIDE	1.2	***	***	OSHA 50 PPM
CAS NO. 1336-21-6 SYN: AQUA AMMONIA				ACGIH 25 PPM

THIS PRODUCT CONTAINS AMMONIUM HYDROXIDE. AMMONIA GAS, MAY BE EMITTED BY THIS PRODUCT. THE CAS# FOR AMMONIA IS 7664-41-7. AMMONIA (7664-41-7) IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF "SARA".
ACGIH/OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR AMMONIA IS 35PPM.

*** NOT KNOWN TO MANUFACTURER

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

VAPOR DENSITY: NOT APPLICABLE MOSTLY WATER VAPOR
NOT APPLICABLE. MOSTLY WATER VAPOR.

BOILING RANGE: APPROX. 212 F
NOT APPLICABLE. MOSTLY WATER VAPOR.

PERCENT BY WEIGHT VOLATILE ORGANIC COMPOUNDS (VOC) : 4
WEIGHT PER GALLON: 9.30 POUNDS PER U.S. GALLON

SECTION 4-FIRE AND EXPLOSION DATA

FLASH POINT (CLOSED CUP) GREATER THAN 199 DEGREES F

EXTINGUISHING MEDIA

THIS IS A WATER BASED PRODUCT AND SHOULD NOT SUPPORT COMBUSTION.

UNUSUAL FIRE AND EXPLOSION HAZARDS

SECTION 4-FIRE AND EXPLOSION DATA - CONTINUED -

NONE KNOWN TO MANUFACTURER.

SPECIAL FIRE FIGHTING PROCEDURES

SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN BY FIREFIGHTERS OR OTHERS EXPOSED TO THE VAPORS FROM THIS PRODUCT IN A FIRE SITUATION (FOR INSTANCE IF THE CONTAINER RUPTURES FROM SEVERE HEAT EXPOSURE).
NONE KNOWN TO MANUFACTURER.

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -SEE SECTION 2

EFFECTS OF OVEREXPOSURE

**THE P O T E N T I A L HEALTH HAZARDS IDENTIFIED BELOW WILL NOT EXPRESS THEMSELVES IF EXPOSURE IS ELIMINATED. THIS PRODUCT WILL NOT PRESENT AN A C T U A L HEALTH RISK IN THE WORKPLACE IF IT IS HANDLED IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICES AND IN ACCORD WITH THIS MSDS.

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR UNDER CERTAIN CONDITIONS. INDIVIDUALS WITH PRE-EXISTING SKIN OR RESPIRATORY DISORDERS MAY BE MORE SUSCEPTIBLE TO THESE EFFECTS.
LIQUID MAY CAUSE EYE BURNS.
LIQUID MAY CAUSE PERMANENT EYE INJURY.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT
WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT
FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.

INHALATION
REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION
SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.

OTHERS

SECTION 6 - REACTIVITY DATA

STABILITY

SECTION 6 - REACTIVITY DATA - CONTINUED -

STABLE.

INCOMPATIBILITY

NO HAZARDOUS INCOMPATIBILITIES KNOWN TO MANUFACTURER.

HAZARDOUS DECOMPOSITION PRODUCTS

NONE KNOWN TO MANUFACTURER.

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

NONE KNOWN TO MANUFACTURER.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.

WASTE DISPOSAL

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

USER RESPONSIBILITY FOR SPILLS AND WASTES

THE USER OF THIS PRODUCT WHO GENERATES A WASTE CONTAINING THIS PRODUCT IS SOLELY RESPONSIBLE FOR THAT WASTE.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

SECTION 8 - SPECIAL PROTECTION INFORMATION - CONTINUED -

IN RESTRICTED VENTILATION AREAS USE NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATORS FOR VAPORS,OR COMBINATION CHEMICAL CARTRIDGE AND SPRAY MIST FILTERS FOR MISTS FROM SPRAYING. IN CONFINED AREAS OR IN CASE OF VERY HIGH CONCENTRATIONS, AS FROM SPILLS INDOORS, USE NIOSH-APPROVED AIR-SUPPLIED OR SELF-CONTAINED BREATHING APPARATUS. THE HAZARDOUS INGREDIENTS LISTED IN SECTION 2 SHOULD BE CONSIDERED IN CHOOSING THE PROPER RESPIRATORY PROTECTION. FOR SOLVENTS, ORGANIC VAPOR CARTRIDGES ARE GENERALLY APPROPRIATE.

VENTILATION

PROVIDE GENERAL DILUTION VENTILATION OR LOCAL EXHAUST AS NEEDED TO KEEP VAPOR CONCENTRATIONS OF THE INGREDIENTS LISTED IN SECTION 2 TO BELOW THEIR TLV'S. LOCAL EXHUAST IS ESSENTIAL FOR SPRAYING OPERATIONS. IF EFFECTS OF OVEREXPOSURE LISTED IN SECTION 5 ARE EVIDENT, VENTILATION MAY BE INADEQUATE.

PROTECTIVE GLOVES

PROTECTIVE GLOVES RECOMMENDED TO HELP PREVENT POSSIBLE EFFECTS OF SKIN CONTACT (SEE SECTION 5).

EYE PROTECTION

SPLASH-PROOF CHEMICAL GOGGLES, OR EQUIVALENT EYE PROTECTION.

OTHER PROTECTIVE EQUIPMENT

IT IS RECOMMENDED THAT A SAFETY SHOWER AND EYE WASH BE AVAILABLE WHEREVER THIS PRODUCT IS HANDLED OR USED.

SECTION 9 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

NORMAL GOOD HOUSEKEEPING AND GOOD INDUSTRIAL HYGIENE PROCEDURES SHOULD BE ADHERED TO. UNNECESSARY, EXCESSIVE, AND/OR PROLONGED PERSONAL CONTACT SHOULD BE AVOIDED. USE ONLY WITH ADEQUATE VENTILATION.

IF AMMONIUM HYDROXIDE CONTENT SHOWN IN SECTION 2 IS HIGH,KEEP AWAY FROM FLAMMABLE LIQUID OR FORMALDEHYDE STORAGE. AVOID BREATHING VAPORS, AS THEY COULD CAUSE SEVERE RESPIRATORY IRRITATION.

OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.

SECTION 10 -USER RESPONSIBILITY

SECTION 10 -USER RESPONSIBILITY - CONTINUED -

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH BUT NO
WARRANTY, EXPRESS OR IMPLIED, IS MADE.
MANUFACTURER SHOULD BE CONTACTED IF ADDITIONAL INFORMATION
IS NEEDED REGARDING THIS PRODUCT

SECTION 1

New

MANUFACTURERS NAME: STAHL USA
ADDRESS: 12 CORWIN ST., P.O. BOX 3039,PEABODY,MA. 01960
EMERGENCY TELEPHONE NO.:
DAYS: /508/ 531-0371
NIGHTS: CHEMTREC 1-800-424-9300 (CHEM.EMERG. ONLY!)
PRODUCT NAME: P-4846

HMIS RATING

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0

SECTION 2-HAZARDOUS INGREDIENTS

INGREDIENTS	PERCENT	VAPOR PRESS. MM HG	VAPOR PRESS. DEG C	EXPOSURE LIMITS OSHA (PEL) ACGIH (TLV)
AMMONIUM HYDROXIDE CAS NO. 1336-21-6 SYN: AQUA AMMONIA	.4	***	***	OSHA 50 PPM ACGIH 25 PPM

THIS PRODUCT CONTAINS AMMONIUM HYDROXIDE. AMMONIA GAS, MAY BE EMITTED BY THIS PRODUCT. THE CAS# FOR AMMONIA IS 7664-41-7. AMMONIA (7664-41-7) IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF "SARA".
ACGIH/OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR AMMONIA IS 35PPM.

*** NOT KNOWN TO MANUFACTURER

SECTION 3-PHYSICAL DATA

EVAPORATION RATE
SLOWER THAN ETHYL ETHER.

VAPOR DENSITY: NOT APPLICABLE MOSTLY WATER VAPOR
NOT APPLICABLE. MOSTLY WATER VAPOR.

BOILING RANGE: APPROX. 212 F
NOT APPLICABLE. MOSTLY WATER VAPOR.

PERCENT BY WEIGHT VOLATILE ORGANIC COMPOUNDS (VOC) : 3
WEIGHT PER GALLON: 9.40 POUNDS PER U.S. GALLON

SECTION 4-FIRE AND EXPLOSION DATA

FLASH POINT (CLOSED CUP) GREATER THAN 199 DEGREES F

EXTINGUISHING MEDIA

THIS IS A WATER BASED PRODUCT AND SHOULD NOT SUPPORT COMBUSTION.

UNUSUAL FIRE AND EXPLOSION HAZARDS

SECTION 4-FIRE AND EXPLOSION DATA - CONTINUED -

NONE KNOWN TO MANUFACTURER.

SPECIAL FIRE FIGHTING PROCEDURES

SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN BY FIREFIGHTERS OR OTHERS EXPOSED TO THE VAPORS FROM THIS PRODUCT IN A FIRE SITUATION (FOR INSTANCE IF THE CONTAINER RUPTURES FROM SEVERE HEAT EXPOSURE).
NONE KNOWN TO MANUFACTURER.

SECTION 5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -SEE SECTION 2

EFFECTS OF OVEREXPOSURE

**THE P O T E N T I A L HEALTH HAZARDS IDENTIFIED BELOW WILL NOT EXPRESS THEMSELVES IF EXPOSURE IS ELIMINATED. THIS PRODUCT WILL NOT PRESENT AN A C T U A L HEALTH RISK IN THE WORKPLACE IF IT IS HANDLED IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICES AND IN ACCORD WITH THIS MSDS.

AS WITH ALL CHEMICAL PRODUCTS, SKIN, EYE, OR RESPIRATORY IRRITATION COULD OCCUR UNDER CERTAIN CONDITIONS. INDIVIDUALS WITH PRE-EXISTING SKIN OR RESPIRATORY DISORDERS MAY BE MORE SUSCEPTIBLE TO THESE EFFECTS.
LIQUID MAY CAUSE EYE BURNS.
LIQUID MAY CAUSE PERMANENT EYE INJURY.

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT
WASH WITH SOAPY WATER. RINSE THOROUGHLY. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

EYE CONTACT
FLUSH WITH LOTS OF CLEAN WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.

INHALATION
REMOVE VICTIM TO FRESH AIR. GIVE MOUTH TO MOUTH BREATHING IF PERSON HAS STOPPED BREATHING. GET MEDICAL ATTENTION.

INGESTION
SEEK MEDICAL ADVICE. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY DOCTOR OR POISON CONTROL CENTER.

OTHERS

SECTION 6 - REACTIVITY DATA

STABILITY

SECTION 6 - REACTIVITY DATA - CONTINUED -

STABLE.

INCOMPATIBILITY

NO HAZARDOUS INCOMPATIBILITIES KNOWN TO MANUFACTURER.

HAZARDOUS DECOMPOSITION PRODUCTS

NONE KNOWN TO MANUFACTURER.

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

CONDITIONS TO AVOID

NONE KNOWN TO MANUFACTURER.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SMALL SPILLS MAY BE ABSORBED ON APPROPRIATE ABSORBENT, SUCH AS VERMICULITE, CLAY-BASED ABSORBENTS, ETC. LARGE SPILLS SHOULD BE HANDLED BY STOPPING THE FLOW OF THE LIQUID AT ITS SOURCE, PREVENTING FURTHER SPREAD OF THE SPILL (AS BY DIKING), AND TRANSFERRING THE LIQUID AND ANY SPILL CLEAN-UP DEBRIS TO PROPER CONTAINERS.

WASTE DISPOSAL

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY HAZARDOUS INGREDIENTS LISTED IN SECTION 2 MUST BE TAKEN INTO CONSIDERATION, BUT SINCE THESE ARE LISTED FOR SAFETY PURPOSES, THERE MAY BE OTHER INGREDIENTS OR PROPERTIES OF THIS PRODUCT THAT MUST BE CONSIDERED. CONTACT THE SUPPLIER IF MORE INFORMATION IS NEEDED.

USER RESPONSIBILITY FOR SPILLS AND WASTES

THE USER OF THIS PRODUCT WHO GENERATES A WASTE CONTAINING THIS PRODUCT IS SOLELY RESPONSIBLE FOR THAT WASTE.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

SECTION 8 - SPECIAL PROTECTION INFORMATION - CONTINUED -

IN RESTRICTED VENTILATION AREAS USE NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATORS FOR VAPORS,OR COMBINATION CHEMICAL CARTRIDGE AND SPRAY MIST FILTERS FOR MISTS FROM SPRAYING. IN CONFINED AREAS OR IN CASE OF VERY HIGH CONCENTRATIONS, AS FROM SPILLS INDOORS, USE NIOSH-APPROVED AIR-SUPPLIED OR SELF-CONTAINED BREATHING APPARATUS. THE HAZARDOUS INGREDIENTS LISTED IN SECTION 2 SHOULD BE CONSIDERED IN CHOOSING THE PROPER RESPIRATORY PROTECTION. FOR SOLVENTS, ORGANIC VAPOR CARTRIDGES ARE GENERALLY APPROPRIATE.

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PROTECTIVE GLOVES

PROTECTIVE GLOVES RECOMMENDED TO HELP PREVENT POSSIBLE EFFECTS OF SKIN CONTACT (SEE SECTION 5).

EYE PROTECTION

SPLASH-PROOF CHEMICAL GOGGLES, OR EQUIVALENT EYE PROTECTION.

OTHER PROTECTIVE EQUIPMENT

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SECTION 9 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS

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OTHER PRECAUTIONS OR NOTES

FOR INDUSTRIAL USE ONLY.

SECTION 10 -USER RESPONSIBILITY

SECTION 10 -USER RESPONSIBILITY - CONTINUED -

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WARRANTY, EXPRESS OR IMPLIED, IS MADE.
MANUFACTURER SHOULD BE CONTACTED IF ADDITIONAL INFORMATION
IS NEEDED REGARDING THIS PRODUCT

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Shu ~~21-360441~~

********** SECTION 1: PRODUCT IDENTIFICATION **********

MANUFACTURERS ADDRESS : 1101 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415
MFG TELEPHONE NUMBER : (612) 332-7371
24 HR EMERGENCY PHONE NO : 1-800-228-5635
CHEMICAL NAME OR FAMILY : PAINT PRODUCT
FORMULA : NOT APPLICABLE
TRADE NAME : 46 38016 RNM-VG CUST WHI BASE LARK
REVISION DATE : 07-11-96 DATE PRINTED : 09-26-96

********** SECTION 2: HAZARDOUS INGREDIENTS **********

NAME	WT %	
COMMON(NA):MINERAL SPIRITS	35%	TLV TWA 100.00 PPM
CAS:64742-47-3 CHEMICAL: DISTILLATES (PETROLEUM), HYDROTREATED LIGHT		TLV STEL NOT ESTAB
		OSHA PEL 100.00 PPM
		CEILING NOT ESTAB
		RECOMND NOT ESTAB
*COMMON(NA):BARIUM METABORATE PIGMENT	1%	TLV TWA NOT ESTAB
CAS:UNKNOWN CHEMICAL: MODIFIED BARIUM METABORATE - SUPPLIER TRADE SECRET		TLV STEL NOT ESTAB
		OSHA PEL NOT ESTAB
		CEILING NOT ESTAB
		RECOMND 10.00 MG/CU M
COMMON(NA):SILICA	1%	TLV TWA 10.00 MG/CU M
CAS:112926-008 CHEMICAL: AMORPHOUS SILICA GEL		TLV STEL NOT ESTAB
		OSHA PEL 6.00 MG/CU M
		CEILING NOT ESTAB
		RECOMND NOT ESTAB
COMMON(NA):TITANIUM DIOXIDE	25%	TLV TWA 10.00 MG/CU M
CAS:13463-67-7 CHEMICAL: TITANIUM OXIDE		TLV STEL NOT ESTAB
		OSHA PEL 10.00 MG/CU M
		CEILING NOT ESTAB
		RECOMND NOT ESTAB

CHEMICALS NOTED WITH A (*) ARE REPORTABLE UNDER SECTION 313 OF SARA TITLE III

ALL COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH U.S. TSCA CHEMICAL SUBSTANCE INVENTORY REQUIREMENTS.

********** SECTION 3: PHYSICAL DATA **********

BOILING POINT: 315 DEG F.
VAPOR PRESSURE MM HG AT 68 DEG F: 2.0
VAPOR DENSITY (AIR = 1.0): 5.1
SPECIFIC GRAVITY: 1.14

********** SECTION 3: PHYSICAL DATA ****CONTINUED**

PERCENT VOLATILE BY VOLUME: 53.37
EVAPORATION RATE (BUTYL ACETATE = 1): .1
SOLUBILITY IN WATER: NO
APPEARANCE AND ODOR: NORMAL FOR A COATINGS PRODUCT.
THEORETICAL VOC: 3.48 LBS/GALLON
THEORETICAL VOC: 417 GRAMS/LITER

********** SECTION 4: FIRE AND EXPLOSION HAZARD **********

FLASH POINT TCC/PM DEG F : 101
LOWER EXPLOSIVE LIMIT : 1.00
UPPER EXPLOSIVE LIMIT : 23.00

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES:
FIRE FIGHTERS MUST WEAR SELF CONTAINED BREATHING APPARATUS OR AIR MASKS. CONTAINERS EXPOSED TO FIRE SHOULD BE KEPT COOL WITH WATER SPRAY.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS:
CONTAINS OXIDIZING MATERIALS. CONTAMINATED RAGS, WIPES, SAWDUST, ETC. MAY CATCH FIRE SPONTANEOUSLY. STORE WASTE UNDER WATER IN CLOSED METAL CONTAINERS UNTIL DISPOSED OF IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS

********** SECTION 5: HEALTH HAZARD DATA **********

THRESHOLD LIMIT VALUE: NOT REQUIRED FOR MIXTURE.

EFFECTS OF OVEREXPOSURE:
IMMEDIATE EFFECTS (ACUTE):
HARMFUL IF INHALED. MAY AFFECT THE BRAIN, NERVOUS SYSTEM OR RESPIRATORY SYSTEM, CAUSING DIZZINESS, HEADACHE, NAUSEA OR RESPIRATORY IRRITATION.
PROLONGED INHALATION OF DUSTS MAY RESULT IN SHORTNESS OF BREATH OVEREXPOSURE TO INGREDIENTS IN THIS PRODUCT MAY CAUSE NOSE AND THROAT IRRITATION, EYE IRRITATION, SKIN IRRITATION.
DELAYED EFFECTS (CHRONIC):
NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - ANY RESPIRATORY OR SKIN CONDITION.

EMERGENCY AND FIRST AID PROCEDURES:
EYE CONTACT: FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER.
INHALATION: IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR.
SWALLOWING: IF SWALLOWED, GET MEDICAL ATTENTION IMMEDIATELY.

POSSIBLE ROUTES OF ENTRY: INHALATION, INGESTION, SKIN ABSORBTION.

********** SECTION 6: REACTIVITY DATA **********

THIS PRODUCT IS STABLE
CONDITIONS TO AVOID: NONE
INCOMPATIBILITY: STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON DIOXIDE/MONOXIDE METAL OXIDES

HAZARDOUS POLYMERIZATION: NONE

********** SECTION 7: SPILL OR LEAK PROCEDURES **********

VENTILATE AREA. AVOID BREATHING OF VAPORS. USE SELF-CONTAINED BREATHING APPARATUS OR AIRMASK FOR LARGE SPILLS IN A CONFINED AREA. AVOID CONTACT WITH EYES.

WASTE DISPOSAL METHOD:
DISPOSE IN CHEMICAL DISPOSAL AREA OR IN A MANNER THAT COMPLIES WITH LOCAL, STATE, AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS.

********** SECTION 8: SPECIAL PROTECTION INFORMATION **********

RESPIRATORY PROTECTION:
UNLESS AIR MONITORING DEMONSTRATES VAPOR/MIST LEVELS ABOVE APPLICABLE LIMITS, NO RESPIRATOR IS REQUIRED. IF RESPIRATOR IS REQUIRED, THE APPROPRIATE, PROPERLY FITTED RESPIRATOR (NIOSH/MSHA APPROVED) SHOULD BE WORN DURING APPLICATION. FOLLOW RESPIRATOR MANUFACTURERS DIRECTIONS FOR RESPIRATOR USE.

VENTILATION:
REQUIRED FOR SPRAYING OR IN A CONFINED AREA, VENTILATION EQUIPMENT SHOULD BE EXPLOSION PROOF.

PROTECTIVE GLOVES: USUAL HAND PROTECTION FOR PAINT APPLICATION.
EYE PROTECTION: FOR SPRAY APPLICATION, USE CHEMICAL GOGGLES AS A MINIMUM. OTHERWISE, USE SAFETY GLASSES WITH SIDE SHIELDS AS A MINIMUM.
OTHER PROTECTIVE EQUIPMENT: USUAL CLOTHING FOR PAINTING OPERATIONS.

********** SECTION 9: SPECIAL PRECAUTIONS **********

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE. DO NOT STORE ABOVE 120 DEG F. BASED ON THE PRODUCT FLASH POINT AND VAPOR PRESSURE SUITABLE STORAGE SHOULD BE PROVIDED IN ACCORDANCE WITH OSHA REGULATION 1910. 106. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUE, INCLUDING FLAMABLE OR EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEAR CONTAINER. ALL LABEL WARNINGS MUST BE OBSERVED UNTIL THE CONTAINER HAS BEEN CLEANED OR RECONDITIONED.

ABBREVIATIONS USED:
OSHA-OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION; IARC-INTERNATIONAL AGENCY FOR RESEARCH ON CANCER; LEL-LOWER EXPLOSIVE LIMITS; UEL-UPPER EXPLOSIVE LIMITS; MG CU M-MILLIGRAMS PER METERS CUBED; MM-MILLIMETERS MPPCF-MILLIONS OF PARTICLES PER CUBIC FOOT; MSHA-MINE SAFETY AND HEALTH

********** SECTION 9: SPECIAL PRECAUTIONS ****CONTINUED****

ADMINISTRATION; NA-NOT APPLICABLE; NIOSH-NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH; NOT EST-NOT ESTABLISHED; NTP-NATIONAL TOXICOLOGY PROGRAM; PB-LEAD; PEL-PERMISSIBLE EXPOSURE LEVEL; PPM-PARTS PER MILLION; TCC/PM-TAG CLOSED CUP/PENSKY-MARTEN;RECM-RECOMMENDED;TLV-THRESHOLD LIMIT VALUES.

********** DISCLAIMER SECTION **********

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. THE VALSPAR CORPORATION MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE DATA. THE VALSPAR CORPORATION FURTHER ASSUMES NO RESPONSIBILITY FOR PERSONAL INJURY OR PROPERTY DAMAGE TO VENDEES, USERS, OR THIRD PARTIES CAUSED BY THIS MATERIAL. SUCH VENDEES OR USERS ASSUME ALL RISKS ASSOCIATED WITH THE USE OF THIS MATERIAL.

********** SECTION 1: PRODUCT IDENTIFICATION **********

MANUFACTURERS ADDRESS : 1101 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415
MFG TELEPHONE NUMBER : (612) 332-7371
24 HR EMERGENCY PHONE NO : 1-800-228-5635
CHEMICAL NAME OR FAMILY : PAINT PRODUCT
FORMULA : NOT APPLICABLE
TRADE NAME : 46 38616 RNM VG MED GRAY
REVISION DATE : 11-10-94 DATE PRINTED : 09-26-96

********** SECTION 2: HAZARDOUS INGREDIENTS **********

NAME	APPROX WT %	
COMMON(NA):MINERAL SPIRITS CAS:64742-47-8 CHEMICAL: DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	35%	TLV TWA 100.00 PPM TLV STEL NOT ESTAB OSHA PEL 100.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
COMMON(1):CRYSTALLINE SILICA CAS:14808-60-7 CHEMICAL: QUARTZ	< 1%	TLV TWA 0.10 MG/CU M TLV STEL NOT ESTAB OSHA PEL 0.10 MG/CU M CEILING NOT ESTAB RECOMND NOT ESTAB
COMMON(NA):TITANIUM DIOXIDE CAS:13463-67-7 CHEMICAL: TITANIUM OXIDE	10%	TLV TWA 10.00 MG/CU M TLV STEL NOT ESTAB OSHA PEL 10.00 MG/CU M CEILING NOT ESTAB RECOMND NOT ESTAB
COMMON(NA):AROMATIC NAPHTHA, LIGHT CAS:64742-95-6 CHEMICAL: SOLVENT NAPHTHA(PETROLEUM),LT. AROM.	1%	TLV TWA 100.00 PPM TLV STEL NOT ESTAB OSHA PEL NOT ESTAB CEILING NOT ESTAB RECOMND 50.00 PPM

THERE ARE NO SARA 313 CHEMICALS IN THIS PRODUCT

(1) = THIS MATERIAL IS A CARCINOGEN PER NTP,IARC

ALL COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH U.S. TSCA CHEMICAL SUBSTANCE INVENTORY REQUIREMENTS.

********** SECTION 3: PHYSICAL DATA **********

BOILING POINT: 315 DEG F.
VAPOR PRESSURE MM HG AT 77 DEG F: 4.0
VAPOR DENSITY (AIR = 1.0): 5.1
SPECIFIC GRAVITY: 1.10
PERCENT VOLATILE BY VOLUME: 52.85
EVAPORATION RATE (BUTYL ACETATE = 1): .1
SOLUBILITY IN WATER: NO
APPEARANCE AND ODOR: NORMAL FOR A COATINGS PRODUCT.
THEORETICAL VOC: 3.47 LBS/GALLON
THEORETICAL VOC: 415 GRAMS/LITER

********** SECTION 4: FIRE AND EXPLOSION HAZARD **********

FLASH POINT TCC/PM DEG F : 101
LOWER EXPLOSIVE LIMIT : 1.00
UPPER EXPLOSIVE LIMIT : 23.00

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES:
FIRE FIGHTERS MUST WEAR SELF CONTAINED BREATHING APPARATUS OR AIR MASKS.
CONTAINERS EXPOSED TO FIRE SHOULD BE KEPT COOL WITH WATER SPRAY.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS:
CONTAINS OXIDIZING MATERIALS. CONTAMINATED RAGS, WIPES, SAWDUST, ETC. MAY CATCH FIRE SPONTANEOUSLY. STORE WASTE UNDER WATER IN CLOSED METAL CONTAINERS UNTIL DISPOSED OF IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

********** SECTION 5: HEALTH HAZARD DATA **********

THRESHOLD LIMIT VALUE: NOT REQUIRED FOR MIXTURE.

EFFECTS OF OVEREXPOSURE:
IMMEDIATE EFFECTS (ACUTE):
HARMFUL IF INHALED. MAY AFFECT THE BRAIN, NERVOUS SYSTEM OR RESPIRATORY SYSTEM, CAUSING DIZZINESS, HEADACHE, NAUSEA OR RESPIRATORY IRRITATION.
OVEREXPOSURE TO INGREDIENTS IN THIS PRODUCT MAY CAUSE NOSE AND THROAT IRRITATION, EYE IRRITATION, SKIN IRRITATION.
DELAYED EFFECTS (CHRONIC):
CONTAINS CRYSTALINE SILICA THAT IARC HAS CONCLUDED MAY CAUSE CANCER IN ANIMALS BUT LIMITED EVIDENCE OF CANCER IN HUMANS. RISK OF CANCER DEPENDS ON DURATION AND LEVEL OF EXPOSURE. IN COATINGS PRODUCTS,RISK IS DUE PRIMARILY TO INHALATION OF SANDING DUST.
PROLONGED EXPOSURE TO RESPIRABLE CRYSTALLINE QUARTZ (SILICA) MAY CAUSE DELAYED (CHRONIC) LUNG INJURY (SILICOSIS)
NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - ANY RESPIRATORY OR SKIN CONDITION.

********** SECTION 5: HEALTH HAZARD DATA ****CONTINUED****

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER.

INHALATION: IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR.

SWALLOWING: IF SWALLOWED, GET MEDICAL ATTENTION IMMEDIATELY.

POSSIBLE ROUTES OF ENTRY: INHALATION, INGESTION, SKIN ABSORBTION.

********** SECTION 6: REACTIVITY DATA **********

THIS PRODUCT IS STABLE
CONDITIONS TO AVOID: NONE
INCOMPATIBILITY: STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION PRODUCTS:
HALIDES CARBON DIOXIDE/MONOXIDE METAL OXIDES

HAZARDOUS POLYMERIZATION: NONE

********** SECTION 7: SPILL OR LEAK PROCEDURES **********

VENTILATE AREA. AVOID BREATHING OF VAPORS. USE SELF-CONTAINED BREATHING APPARATUS OR AIRMASK FOR LARGE SPILLS IN A CONFINED AREA. AVOID CONTACT WITH EYES.

WASTE DISPOSAL METHOD:
DISPOSE IN CHEMICAL DISPOSAL AREA OR IN A MANNER THAT COMPLIES WITH LOCAL, STATE, AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS.

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REQUIRED FOR SPRAYING OR IN A CONFINED AREA, VENTILATION EQUIPMENT SHOULD BE EXPLOSION PROOF.

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EYE PROTECTION: FOR SPRAY APPLICATION, USE CHEMICAL GOGGLES AS A MINIMUM. OTHERWISE, USE SAFETY GLASSES WITH SIDE SHIELDS AS A MINIMUM.
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********** SECTION 9. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE. DO NOT STORE ABOVE 120 DEG F. BASED ON THE PRODUCT FLASH POINT AND VAPOR PRESSURE SUITABLE STORAGE SHOULD BE PROVIDED IN ACCORDANCE WITH OSHA REGULATION 1910. 106. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUE, INCLUDING FLAMABLE OR EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEAR CONTAINER. ALL LABEL WARNINGS MUST BE OBSERVED UNTIL THE CONTAINER HAS BEEN CLEANED OR RECONDITIONED.

ABBREVIATIONS USED:

OSHA-OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION; IARC-INTERNATIONAL AGENCY FOR RESEARCH ON CANCER; LEL-LOWER EXPLOSIVE LIMITS; UEL-UPPER EXPLOSIVE LIMITS; MG CU M-MILLIGRAMS PER METERS CUBED; MM-MILLIMETERS MPPCF-MILLIONS OF PARTICLES PER CUBIC FOOT; MSHA-MINE SAFETY AND HEALTH ADMINISTRATION; NA-NOT APPLICABLE; NIOSH-NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH; NOT EST-NOT ESTABLISHED; NTP-NATIONAL TOXICOLOGY PROGRAM; PB-LEAD; PEL-PERMISSIBLE EXPOSURE LEVEL; PPM-PARTS PER MILLION; TCC/PM-TAG CLOSED CUP/PENSKY-MARTEN;RECM-RECOMMENDED;TLV-THRESHOLD LIMIT VALUES.

********** DISCLAIMER SECTION **********

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. THE VALSPAR CORPORATION MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE DATA. THE VALSPAR CORPORATION FURTHER ASSUMES NO RESPONSIBILITY FOR PERSONAL INJURY OR PROPERTY DAMAGE TO VENDEES, USERS, OR THIRD PARTIES CAUSED BY THIS MATERIAL. SUCH VENDEES OR USERS ASSUME ALL RISKS ASSOCIATED WITH THE USE OF THIS MATERIAL.

American National Can

MATERIAL SAFETY DATA SHEET

Parafilm

1337416
1337410
1337412

MSDS:

DATE: 7/17/84

I. PRODUCT IDENTIFICATION

COMMON NAME: "Parafilm "M"	CHEMICAL FORMULA:
SYNONYMS: See above	
TRADE NAMES:	
MANUFACTURER: American National Can Company	
SHIPPING NAME: DOT	IATA

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	TLV	(REMARKS)
Wax	56		
Polyolefin	44		

III. PHYSICAL DATA

BOILING POINT, 760mm Hg	Above 550°F.	MELTING POINT	65°C.
SPECIFIC GRAVITY (H_2O = 1)	<1	BULK DENSITY	NA
pH (1% Soln.)	NA	SOLUBILITY IN WATER	Negligible
% VOLATILES BY WEIGHT	NA		
APPEARANCE & ODOR			

AMERICAN NATIONAL CAN COMPANY, NEENAH TECHNICAL CENTER, P.O. BOX 702, NEENAH, WI 54957

IV. FIRE AND EXPLOSION DATA

FLASH POINT (Test Method)	NA	AUTOIGNITION TEMPERATURE	
FLAMMABLE LIMITS IN AIR, % BY VOLUME	LOWER:	UPPER:	
EXTINGUISHING MEDIA	Use water fog, foam, dry chemical of CO_2		
SPECIAL FIRE FIGHTING PROCEDURES	Do not enter confined fire space without proper protective equipment including a NIOSH approved self-contained breathing apparatus.		
UNUSUAL FIRE AND EXPLOSION HAZARD	Smoke produced from Parafilm "M" could generate Carbon Monoxide, Acrolein, Carbon Dioxide and unidentified organic compounds.		

V. HEALTH HAZARD INFORMATION

(REMARKS)

PRIMARY ROUTES OF EXPOSURE: (x) SKIN CONTACT ( ) EYE CONTACT

( ) INHALATION ( ) SKIN ABSORPTION ( ) INGESTION

EFFECTS OF OVEREXPOSURE:

ACUTE EFFECTS: None

CHRONIC EFFECTS: None

Overexposure may result in the aggravation of existing conditions of the following:

( ) Liver ( ) Skin ( ) Respiratory System

( ) Kidneys ( ) Eyes ( ) Central Nervous System

VI. EMERGENCY AND FIRST AID PROCEDURES

EYES:

SKIN:

INHALATION:

INGESTION:

NOTES TO PHYSICIAN:

VII. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:

None

INCOMPATABILITY:

None

HAZARDOUS DECOMPOSITION PRODUCTS:

None

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:

VIII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

NA

NEUTRALIZING CHEMICALS:

WASTE DISPOSAL METHODS:

NOTE: Disposal of all waste materials must be accomplished in accordance with applicable local, state and federal regulations.

IX. SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS:

Normal industrial ventilation should be employed.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT: None

RESPIRATORY:

NOTE: This information is provided only as a general guideline to be utilized in conjunction with a full respiratory protection program.

EYE:

GLOVES:

OTHER:

X. SPECIAL PRECAUTIONS

PRECAUTIONARY STATEMENTS:

None

OTHER HANDLING AND STORAGE REQUIREMENTS

None

XI. ADDITIONAL REGULATORY CONCERNS

FEDERAL:

FDA Complies with the Food, Drug and Cosmetic Act, as amended for use below 150°F.

USDA

CPSC

TSCA

OTHER

STATE:

MATERIAL SAFETY DATA SHEET
Rohm and Haas Company

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PARALOID™ OVI Modifier - Spray finish

Product Code : 78260
Key : 861516-2

MSDS Date : 11/17/00

COMPANY IDENTIFICATION

ROHM AND HAAS COMPANY
100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399

EMERGENCY TELEPHONE NUMBERS

HEALTH EMERGENCY : 215-592-3000
SPILL EMERGENCY : 215-592-3000
CHEMTREC : 800-424-9300

PARALOID™ is a trademark of Rohm and Haas Company or one of its subsidiaries or affiliates

2. COMPOSITION/INFORMATION ON INGREDIENTS

No		CAS REG NO	WEIGHT (%)
1	Acrylic polymer	63197-48-8	18 - 23
2	Interchangeable Neutral Oils	64742-65-0	77 - 82
3	Interchangeable Neutral Oils	64742-54-7	
4	Interchangeable Neutral Oils	64741-88-4	

See Section 8, Exposure Controls / Personal Protection

3. HAZARDS IDENTIFICATION

Primary Routes of Exposure

Eye Contact
Skin Contact

Eye Contact

Material can cause the following:
- slight irritation

Skin Contact

Prolonged or repeated skin contact can cause the following:
- slight skin irritation

4. FIRST AID MEASURES

Inhalation

Move subject to fresh air.

WWW_104(e)_017264

Eye Contact

Flush eyes with a large amount of water for at least 15 minutes. Consult a physician if irritation persists.

Skin Contact

Wash affected skin areas thoroughly with soap and water. Consult a physician if irritation persists.

Ingestion

If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash Point	>190°C/>374°F Tag Open Cup
Auto-ignition Temperature	No Data
Lower Explosive Limit	Not Applicable
Upper Explosive Limit	Not Applicable

Unusual Hazards

Combustion generates toxic fumes of the following:
- carbon oxides - nitrogen oxides - sulfur oxides

Extinguishing Agents

Use the following extinguishing media when fighting fires involving this material:
- carbon dioxide - dry chemical - water spray - foam

Personal Protective Equipment

Wear self-contained breathing apparatus (pressure-demand NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection

Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

Procedures

Keep spectators away. Floor may be slippery; use care to avoid falling. Contain spills immediately with inert materials (e.g. sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.
CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

Storage Conditions

The minimum recommended storage temperature for this material is 0C/32F. The maximum recommended storage temperature for this material is 85C/185F. Low temperature storage can cause handling problems. Viscosity of material will increase.

Handling Procedures

Monomer vapors can be evolved when material is heated during processing operations. See SECTION 8, Exposure Controls/Personal Protection, for types of ventilation required.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Information

No		CAS REG NO	WEIGHT (%)
1	Acrylic polymer	63197-48-8	18 - 23
2	Interchangeable Neutral Oils	64742-65-0	77 - 82
3	Interchangeable Neutral Oils	64742-54-7	
4	Interchangeable Neutral Oils	64741-88-4	

Comp.		ROHM AND HAAS		OSHA		ACGIH	
No.	Units	TWA	STEL	TWA	STEL	TWA	STEL
1		None	None	None	None	None	None
2	mg/m3	5 a	10 a	5 a	None	5 a	10 a
3	mg/m3	5 a	10 a	5 a	None	5 a	10 a
4	mg/m3	5 a	10 a	5 a	None	5 a	None

a Oil mist

Respiratory Protection

A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in 'Exposure Limit Information'.

Up to 10 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator.
Up to 50 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator,
OR
full-facepiece, airline respirator in the pressure demand mode.
Above 50 times the exposure limit or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode,
OR
full-facepiece, airline respirator in the pressure demand

mode with emergency escape provision.
Air-purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.

Eye Protection

Use chemical splash goggles (ANSI Z87.1 or approved equivalent).

Hand Protection

The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection:
- Nitrile

Engineering Controls (Ventilation)

Use local exhaust ventilation with a minimum capture velocity of 100 ft/min. (0.5 m/sec.) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Other Protective Equipment

Facilities storing or utilizing this material should be equipped with an eyewash facility.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear
State	Liquid
Odor Characteristic	Sweet odor
pH	Not Applicable
Viscosity	No Data
Specific Gravity (Water = 1)	0.90
Vapor Density (Air = 1)	Not Applicable
Vapor Pressure	< 1 mm Hg @ 20°C/68°F
Melting Point	-4°C/25°F Pour Point
Boiling Point	> 316°C/>601°F Neutral Oil
Solubility in Water	Not Applicable
Percent Volatility	0%
Evaporation Rate (BAc = 1)	Not Applicable

See Section 5, Fire Fighting Measures

10. STABILITY AND REACTIVITY

Instability

This material is considered stable. However, avoid temperatures above >204C/400F.

Hazardous Decomposition Products

Thermal decomposition may yield the following:

- acrylic monomers

Hazardous Polymerization

Product will not undergo polymerization.

Incompatibility

Avoid contact with strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute Data

Toxicity data for a compositionally similar material are listed below.

Dermal LD50 - rabbit: >5000 mg/kg
Oral LD50 - rat: >5000 mg/kg
Skin irritation - rabbit: practically non-irritating
Eye Irritation - rabbit: slight irritation

12. ECOLOGICAL INFORMATION

No Applicable Data

13. DISPOSAL CONSIDERATIONS

Procedure

Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

US DOT Hazard Class ..... NONREGULATED

15. REGULATORY INFORMATION

Workplace Classification

Any product containing a substance for which OSHA has established a permissible exposure limit (PEL) is considered to be hazardous. OSHA has established a PEL of 5 mg/m3 for worker exposure to airborne mists of the mineral oil component of this product. The use of this product is not expected to result in the generation of workplace mists.

This product is not a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA TITLE 3: Section 311/312 Categorizations (40CFR 370)

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

SARA TITLE 3: Section 313 Information (40CFR 372)

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

CERCLA Information (40CFR 302.4)

Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

Waste Classification

When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

United States

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Rohm and Haas Hazard Rating		Scale
Toxicity	1	4=EXTREME
Fire	1	3=HIGH
Reactivity	0	2=MODERATE
Special	-	1=SLIGHT
		0=INSIGNIFICANT

Ratings are based on Rohm and Haas guidelines, and are intended for internal use.

ABBREVIATIONS:

ACGIH = American Conference of Governmental Industrial Hygienists
OSHA = Occupational Safety and Health Administration
TLV = Threshold Limit Value
PEL = Permissible Exposure Limit
TWA = Time Weighted Average
STEL = Short-Term Exposure Limit
BAc = Butyl acetate
| Bar denotes a revision from previous MSDS in this area.

The information contained herein relates only to the specific material identified. Rohm and Haas Company believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. Rohm and Haas Company urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

CHEMICAL NAME Paramel ES

[redacted] 1 REACTIVITY 0

FLAMMABILITY 0 PERSONAL PROTECTION C

0-MINIMAL 1-SLIGHT 2-MODERATE 3-SERIOUS 4-SEVERE
FOR FURTHER INFORMATION CONSULT MSDS

HODGSON
Process Chemicals Inc., Leather

19-120544

Material Safety Data Sheet
Paramel ES

New

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: Paramel ES
Common Name: Ammonium polyacrylic acid solution

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH:	1
FLAMMABILITY:	0
REACTIVITY:	0
PP	C

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Aqueous solution of ammonium polyacrylic acid	n/a mixture	100 %	n/a

N.E. = Not Established

HODGSON
Process Chemicals Inc., Leather

Paramel ES

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:
Temporary irritation of nose and throat may occur

Eye:
Temporary irritation or redness may occur.

Skin:
Temporary irritation of the skin may occur in some individuals.

Ingestion:
This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning.

ACUTE EFFECTS:
Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:
None identified

SECTION 4 - First Aid Measures

Eye and Skin Contact:
Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:
Remove to fresh air. If symptoms persist contact a physician.

Ingestion:
This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

HODGSON
Process Chemicals Inc., Leather

Paramel ES

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: Not applicable
Method: Not applicable
Flammable Limits: Not applicable

Explosive Limits

LEL: Not applicable
UEL: Not applicable
Flammable Classification: Not determined

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Do not freeze. Store under cool dry conditions.

HODGSON
Process Chemicals Inc., Leather

Paramel ES

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	~212 °F	**Density :**	10 lb/gal
Evaporation Rate :	Not determined	**pH :**	Not applicable
Specific Gravity : (Water=1)	1.2	**% Volatiles :** (by Weight)	60 %
Vapor Pressure :	Not applicable	**Flash Point :**	Not applicable
Solubility :	Infinite	**Viscosity :**	Not applicable

Appearance and Odor :
Colorless, viscous liquid with slight characteristic odor.

HODGSON
Process Chemicals Inc., Leather

Paramel ES

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
None known

Hazardous Decomposition Products :
Carbon dioxide and carbon monoxide.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:
No testing conducted.

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:
Hazard Class: Non regulated
Shipping Name:
Harmonized Tariff Code: 2904.10.50 00

HODGSON
Process Chemicals Inc., Leather

Paramel ES

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

n/a

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
n/a						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
04/09/98	Updated form.

Prepared by: Sharon Mathis

04/09/98

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet

Parvol DF

Revised 01-000113

SECTION 1- Chemical Product and Company Identification

Product/Chemical Name: Parvol DF
Common Name: Amino Resin mixture

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

Technical Contact Person: Volker Lorenz

HAZARD RATINGS

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0

PP E

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2-Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Non Hazardous mixture	n/a mixture	100 %	n/a

N.E. = Not Established

WWW_104(e)_017277

SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:
Temporary irritation of nose and throat may occur

Eye:
Temporary irritation or redness may occur.

Skin:
Temporary irritation of the skin may occur in some individuals.

Ingestion:
This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning.

ACUTE EFFECTS:
Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:
None identified

SECTION 4 - First Aid Measures

Eye and Skin Contact:
Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:
Remove to fresh air. If symptoms persist contact a physician.

Ingestion:
This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire-Fighting Measures

Flammable Properties

Flash Point: Not Available
Method:
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: None known

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Do not freeze.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	212 °F	**Density :**	Not Available
Flash Point :	Not Available	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	Not Available	**% Volatiles :** (by Weight)	Not Available
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility :	Infinite	**Viscosity :**	Not Available

Appearance and Odor :
Clear liquid with slight odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
None

Hazardous Decomposition Products :
May release toxic fumes on decomposition

SECTION 11 - Toxicological Information

ACUTE EFFECTS:
No testing conducted.

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:
Hazard Class: Non Regulated
Shipping Name:
Harmonized Tariff Code: 3909.30.00 00

HODGSON
Process Chemicals Inc., Leather

Parvol DF

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

n/a

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
n/a						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 - Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
04/09/98	Updated form.

Prepared by: Sharon Mathis

Tanigard
17-R&D

-04

Material Safety Data Sheet
According to 91/155 EC

Printing date 12.10.2000 Reviewed on 28.09.2000

CHEMTREC EMERGENCY # 800-424-9300

1 Identification of substance:

· **Product details:**

· **Trade name:** Pastosol B

· **Manufacturer/Supplier:**
TRUMPLER GmbH & Co. Chemische Fabrik
Hafenstr. 10 P.O. Box 23 36
D - 67547 Worms D - 67513 Worms
Telephone: 0 62 41 / 40 60
Telefax : 0 62 41 / 40 61 11

· **Further information obtainable from:**
Department Environmental Protection

2 Composition/Data on components:

· **Chemical characterization**
· **Description:**
· Degreasing agent

Dangerous components:

107-41-5	2-methylpentane-2,4-diol Xi; R 36/38	> 5 %
64742-47-8	Distillates (petroleum), hydrotreated light Xn; R 65-66	< 10 %

· **Additional information** May cause lung damage if swallowed.

3 Hazard identification

· **Hazard description:**

Xi Irritant

· **Information concerning to particular hazards to man and environment**
R 36/38 Irritating to eyes and skin.
· **Classification system**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

4 First aid measures

· **After inhalation**
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
· **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing** If symptoms persist consult doctor.

5 Fire fighting measures

· **Suitable extinguishing agents**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Protective equipment:** No special measures required.
· **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
· **Measures for environmental protection:**
Prevent seepage into sewage system, workpits and cellars.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

7 Handling and storage

· **Handling**
· **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **Storage**
· **Requirements to be met by storerooms and receptacles:**
No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
Keep receptacle tightly sealed.

8 Exposure controls and personal protection gear

· **Additional information about design of technical facilities:**
No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:
107-41-5 2-methylpentane-2,4-diol
OEL: Short-term value: 125 mg/m3, 25 ml/m3
Long-term value: 125 mg/m3, 25 ml/m3
· **Additional information:**
The lists valid during the making were used as basis.

· **Personal protective equipment**
· **General protective and hygienic measures**
The usual precautionary measures are to be adhered to when handling

(Contd. on page 3)

chemicals. (Contd. of page 2)
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
· **Protection of hands:** Protective gloves.
· **Eye protection:** Tightly sealed goggles.

9 Physical and chemical properties:

· **Form:** Fluid
· **Colour:** Colourless
· **Odour:** Characteristic

	Value/Range	Unit	Method
· **Change in condition**			
· **Melting point/Melting range:**	undetermined		
· **Boiling point/Boiling range:**	undetermined		
· **Flash point:**	Not applicable		
· **Self-igniting:**	Product is not selfigniting.		
· **Danger of explosion:** Product does not present an explosion hazard.			
· **Density:**	Not determined		
· **Solubility in / Miscibility with Water:**	Fully miscible		
· **pH-value:** at 20 ° C	6.0 - 8.0		

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Dangerous reactions** No dangerous reactions known
· **Dangerous decomposition products:**
No dangerous decomposition products known

11 Toxicological information

· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as

(Contd. on page 4)

issued in the latest version.
Irritant

(Contd. of page 3)

12 Ecological information:

· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Product:**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**
· **Recommendation:**
Non contaminated packagings may be reused.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
· **Recommended cleansing agents:**
Water, if necessary together with cleansing agents.

14 Transport information

· **Land transport ADR/RID (cross-border)**
· **ADR/RID class:** -

· **Maritime transport IMDG:**
· **IMDG Class:** -
· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** -

· **Transport/Additional information:**
Not dangerous according to the above specifications.

15 Regulations

· **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**

Xi Irritant

· **Risk phrases:** 36/38 Irritating to eyes and skin.

(Contd. on page 5)

(Contd. of page 4)

· **Safety phrases:**

16 Keep away from sources of ignition - No smoking.
23 Do not breathe gas/fumes/vapour/spray.
24 Avoid contact with skin.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

· **National regulations**

· **Waterhazard class:**
Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Tanyard 17-R&D

 -04

Material Safety Data Sheet
According to 91/155 EC

Printing date 06.07.2000 Reviewed on 16.07.1999

Trade name: Pastosol W

6 Accidental release measures

· **Person-related safety precautions:** Not required.
· **Measures for environmental protection:**
Prevent seepage into sewage system, workpits and cellars.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

· **Handling**
· **Information for safe handling:** Keep receptacles tightly sealed.
· **Information about fire - and explosion protection:**
No special measures required.

· **Storage**
· **Requirements to be met by storerooms and receptacles:**
No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
Keep receptacle tightly sealed.
· **Storage class**
· **Class according to regulation on flammable liquids:** Void

8 Exposure controls and personal protection gear

· **Additional information about design of technical facilities:**
No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:**
The lists valid during the making were used as basis.

· **Personal protective equipment**
· **General protective and hygienic measures**
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
· **Respiratory protection:** Not required.
· **Protection of hands:** Protective gloves.
· **Eye protection:** Tightly sealed goggles.

* 9 Physical and chemical properties:

· **Form:** Fluid
· **Colour:** Light yellow

(Contd. on page 3)
GB

Material Safety Data Sheet
According to 91/155 EC

Printing date 06.07.2000 Reviewed on 16.07.1999

Trade name: Pastosol W

(Contd. of page 2)

· **Odour:** Characteristic

	Value/Range	Unit	Method
· **Change in condition**			
· **Melting point/Melting range:**	undetermined		
· **Boiling point/Boiling range:**	undetermined		
· **Flash point:**	Not applicable		
· **Self-igniting:**	Product is not selfigniting.		
· **Danger of explosion:** Product does not present an explosion hazard.			
· **Density:**	Not determined		
· **Solubility in / Miscibility with**			
· **Water:**	Fully miscible		
· **pH-value:** (100 g/l) at 20 ° C	ca. 7.5		

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Dangerous reactions** No dangerous reactions known
· **Dangerous decomposition products:**
No dangerous decomposition products known

11 Toxicological information

· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
Irritant

12 Ecological information:

· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Product:**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 4)

Material Safety Data Sheet
According to 91/155 EC

Printing date 06.07.2000 Reviewed on 16.07.1999

Trade name: Pastosol W

(Contd. of page 3)

· **Uncleaned packaging:**
· **Recommendation:**
Non contaminated packagings may be reused.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
· **Recommended cleansing agents:**
Water, if necessary together with cleansing agents.

14 Transport information

· **Land transport ADR/RID (cross-border)**
· **ADR/RID class:** -

· **Maritime transport IMDG:**
· **IMDG Class:** -
· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** -

· **Transport/Additional information:**
Not dangerous according to the above specifications.

15 Regulations

· **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**

Xi Irritant

· **Risk phrases:** 36 Irritating to eyes.

· **Safety phrases:**
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of water.
37/39 Wear suitable gloves and eye/face protection.

· **National regulations**

· **Classification according to VbF:** Void

· **Waterhazard class:**
Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Material Safety Data Sheet
According to 91/155 EC

Printing date 06.07.2000 Reviewed on 16.07.1999

1 Identification of substance:

· **Product details:**

· **Trade name:** Pastosol W

· **Manufacturer/Supplier:**
TRUMPLER GmbH & Co. Chemische Fabrik
Hafenstr. 10 P.O. Box 23 36
D - 67547 Worms D - 67513 Worms
Telephone: 0 62 41 / 40 60
Telefax : 0 62 41 / 40 61 11

· **Further information obtainable from:**
Department Environmental Protection

2 Composition/Data on components:

· **Chemical characterization**
· **Description:** Emulsifier for the beamhouse

Dangerous components:

Sulfonsäure, C 13-17-sec-Alkan-, Natriumsalze Xi; R 36	> 20 %

3 Hazard identification

· **Hazard description:**

Xi Irritant

· **Information concerning to particular hazards to man and environment**
R 36 Irritating to eyes.
· **Classification system**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

4 First aid measures

· **After inhalation**
Supply fresh air; consult doctor in case of complaints.
· **After skin contact** Immediately rinse with water.
· **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing** If symptoms persist consult doctor.

5 Fire fighting measures

· **Suitable extinguishing agents**
CO_2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Protective equipment:** No special measures required.
· **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SAFETY DATA SHEET FOR CHEMICAL SUBSTANCES AND PREPARATIONS 1907/2006/EC

Trade name: PELGRASSOL LP

Date of printing: 03.07.08
Rev.: 1.6 05/2006

1. Identification of the substance/preparation and company

- Product details

Trade name: PELGRASSOL LP

- Application of the substance / the preparation
Auxiliary for the leather and fur industry

- Manufacturer/supplier details

ZSCHIMMER & SCHWARZ
GmbH & Co. KG
CHEMISCHE FABRIKEN
Max-Schwarz-Str. 3-5
D-56112 Lahnstein/Rhein
Telephone no.: +49(0)2621/12-0
Telefax: +49(0)2621/12-407

Information provided by: Produktentwicklung Lederhilfsmittel
Telephone no.: +49(0)2621/12-325
email: msds@zschimmer-schwarz.com

Information in case of emergency: Z&S industrial fire brigade
Telephone no.: +49(0)2621/12-0

2. Hazards identification

3. Composition / Information on ingredients

- Chemical characterization

Compound of synthetic oils and emulsifiers

- Hazardous ingredients

EINECS/CAS	substance Haz. label	R phrases	Concentration
83016-76-6	Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(d odecyloxy)-, compd. with 1-amino-2-propanol Xi	36/38	10- 20 %
2703556 68425-47-8	Amides, soya, N,N-bis(hydroxyethyl) Xi	38,41	1- 5 %
68131-39-5	Alcohols, C12-15, ethoxylated Xi,N	41,50	1- 5 %
2670065 67762-25-8	Alcohols, C12-18 N	50	0,1- 1 %

4. First aid measures

- General information
  Remove contaminated soaked clothing immediately and dispose of safely.

- Skin contact
  In case of contact with skin wash off immediately with plenty of water.

- Eye contact
  In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

- Ingestion
  Rinse out mouth and give plenty of water to drink.
  Summon a doctor immediately.

5. Special fire-fighting procedures

- Suitable extinguishing media
  water
  alcohol-resistant foam
  dry powder
  carbon dioxide

- Special exposure hazards arising from the substance or preparation itself, combustion products or resulting gases
  In the event of fire the following can be released:
  Nitrogen oxides (NOx)
  Sulphurous oxides (SOx)

- Special protective equipment for firefighters
  Short term: filter apparatus, combination filter.
  Do not inhale explosion and/or combustion gases.

6. Accidental release measures

- Personal precautions
  Avoid contact with eyes and skin.

- Environmental precautions
  Do not discharge into the drains/surface water/groundwaters.

- Methods for cleaning up/taking up
  Take up with absorbent material.
  e.g. general-purpose binder
  Dispose of absorbed material in accordance with the regulations.

7. Handling and storage

- Advice on safe handling
  No special measures necessary.
- Advice on protection against fire and explosion
  No special measures necessary.
- Requirements for storage rooms and vessels
  No special measures necessary.
- Further information on storage conditions
  Protect from frost.
  Do not keep at temperatures above 30 °C.
- Storage class (FRG)
  12

8. Exposure controls / personal protection

- General protective measures / hygiene measures
  Observe the usual precautions when handling chemicals.
- Hand protection (EN 374)
  For permanent contact gloves made of the following materials are suitable (Permeation according to EN 374 Part 3: Level 6):
  Nitrile rubber (NBR) gloves
  The exact penetration time must be obtained from the manufacturer of the protective gloves and has to be observed. The determination of penetration times according to EN 374 part III is not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
- Eye protection (EN 166)
  goggles
- Skin protection (EN 465)
  protective clothing

9. Physical and chemical properties

Form:	liquid Phase separation possible
Colour:	pink opaque
Odour:	perfumed
Melting point:	approx. -10 °C
Boiling point:	100 °C
Flash point:	> 100 °C
Vapour pressure:	approx. 23 mbar at 20 °C
Density:	0,97 g/cm³ at 20 °C
Solubility: water	emulsifiable

pH-value: water	10 % approx. 7,5 at 20 °C
Viscosity (dynamic):	approx. 130 mPa*s at 20 °C
Solvent content:	0 %

10. Stability and reactivity

- Hazardous decomposition products
  None with proper handling and storage.

11. Toxicological information

LD50 (oral): > 2000 mg/kg

- Primary irritancy
  Effect on skin: non-irritant
  Effect on eyes: non-irritant

- General remarks
  The product has not been tested. The information is derived from the properties of the individual components.
  The product was classified on the basis of the calculation procedure of the preparation directive (1999/45/EC).

12. Ecological information

- Data on elimination (persistance and degradability)

- Method of analysis
  COD decrease

- Method
  OECD 302B / ISO 9888 / EEC 88/302 C

- Eliminability:
  100 % after 2 d

- Validation
  Readily eliminable from water.

- General information
  The product is biodegradable.

- Ecotoxic effects

LC50: > 1 mg/l

- Behaviour in sewage treatment plants
- According to available knowledge, causes no problems in biological decomposition in sewage treatment plants.

- General ecological information

COD value:	1150 mg O2/g	
BOD value:	393 mg O2/g	after 5 d

13. Disposal considerations

- Product
  Can be taken to an incineration plant, if relevant regulations in force are being observed and, if necessary, after consulting the waste disposal agency, respectively the relevant authorities.
- Contaminated packaging
  Contaminated packaging should be emptied as far as possible and may be reused after appropriate cleansing.

14. Transport information

not applicable

15. Regulatory information

- Labelling according to EC directives

The product does not require a hazard warning label in accordance with EC directives/German regulations on dangerous substances.

- Other regulations, restrictions and prohibition regulations

- 1996/82/EC: ---
- Water hazard class (FRG): 2

16. Additional information

- Relevant R-phrases (see item 3)

36/38
Irritating to eyes and skin.

38
Irritating to skin.

41
Risk of serious damage to eyes.

50
Very toxic to aquatic organisms.

This information is based on our present state of knowledge. It should not be construed as guaranteering specific properties of the products described or their suitability for a particular application. Existing acts and regulations must be observed by the recipient of our products under his own responsibility.

SAFETY DATA SHEET FOR CHEMICAL SUBSTANCES AND PREPARATIONS 1907/2006/EC

Trade name: PELGRASSOL SF

Date of printing: 03.07.08
Rev.: 2.5 07/2007

1. Identification of the substance/preparation and company

- Product details

Trade name: PELGRASSOL SF

- Application of the substance / the preparation
Auxiliary for the leather and fur industry

- Manufacturer/supplier details

ZSCHIMMER & SCHWARZ
GmbH & Co. KG
CHEMISCHE FABRIKEN
Max-Schwarz-Str. 3-5
D-56112 Lahnstein/Rhein
Telephone no.: +49(0)2621/12-0
Telefax: +49(0)2621/12-407

Information provided by: Produktentwicklung Lederhilfsmittel
Telephone no.: +49(0)2621/12-325
email: msds@zschimmer-schwarz.com

Information in case of emergency: Z&S industrial fire brigade
Telephone no.: +49(0)2621/12-0

2. Hazards identification

- Hazard description

Xi - irritant

- Information concerning particular hazards for humans and environment

Risk of serious damage to eyes.

3. Composition / information on ingredients

- Chemical characterization

Compound of synthetic oils and emulsifiers

- Hazardous ingredients

EINECS/CAS	substance Haz. label	R phrases	Concentration
115535-37-0	Butanedioic acid, sulfo-, C10-18-alkyl esters, disodium salts, ethoxylated Xi	41	> 10 %
2670065	Alcohols, C12-18		> 1 %

67762-25-8 N 50

4. First aid measures

- Skin contact
  In case of contact with skin wash off immediately with plenty of water.

- Eye contact
  In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

- Ingestion
  Rinse out mouth and give plenty of water to drink.
  Summon a doctor immediately.

5. Special fire-fighting procedures

- Suitable extinguishing media
  water
  foam
  water spray jet
  carbon dioxide

- Special exposure hazards arising from the substance or preparation itself, combustion products or resulting gases
  In the event of fire the following can be released:
  Nitrogen oxides (NOx)
  Sulphurous oxides (SOx)

- Special protective equipment for firefighters
  Short term: filter apparatus, combination filter.
  Do not inhale explosion and/or combustion gases.

6. Accidental release measures

- Personal precautions
  Avoid contact with eyes and skin.

- Environmental precautions
  Do not discharge into the drains/surface water/groundwaters.

- Methods for cleaning up/taking up
  Take up with absorbent material.
  e.g. general-purpose binder
  Dispose of absorbed material in accordance with the regulations.

7. Handling and storage

- Advice on safe handling
  No special measures necessary.

- Advice on protection against fire and explosion
  No special measures necessary.

- Requirements for storage rooms and vessels
  No special measures necessary.

- Further information on storage conditions
  Protect from frost.
  Do not keep at temperatures above 30 °C.

- Storage class (FRG)
  10

8. Exposure controls / personal protection

- General protective measures / hygiene measures
  Observe the usual precautions when handling chemicals.

- Hand protection (EN 374)
  For permanent contact gloves made of the following materials are suitable (Permeation according to EN 374 Part 3: Level 6):
  Nitrile rubber (NBR) gloves
  The exact penetration time must be obtained from the manufacturer of the protective gloves and has to be observed. The determination of penetration times according to EN 374 part III is not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- Eye protection (EN 166)
  goggles

- Skin protection (EN 465)
  protective clothing

9. Physical and chemical properties

Form:	liquid	
Colour:	yellow opaque	
Odour:	characteristic	
Melting point:	approx. 5 °C	
Boiling point:	approx. 100 °C	DIN 53171
Flash point:	> 100 °C	
Vapour pressure:	23 mbar at 20 °C	
Density:	1 g/cm³ at 20 °C	DIN 51757
Solubility: water	miscible	
Solubility: water		
pH-value: water	10 % approx. 7 at 20 °C	
Viscosity (dynamic):	approx. 200 mPa*s at 20 °C	DIN 53018

10. Stability and reactivity

- Conditions to be avoided
  Protect from sun.
  Protect from frost.
  Protect from heat/overheating.

- Hazardous decomposition products
  None with proper handling and storage.

11. Toxicological information

LD50 (oral): > 2000 mg/kg

- Primary irritancy
  Effect on skin: non-irritant
  Irritant effect on eyes: risk of serious damage to eyes

- General remarks
  The product has not been tested. The information is derived from the properties of the individual components.
  The product was classified on the basis of the calculation procedure of the preparation directive (1999/45/EC).

12. Ecological information

- Data on elimination (persistance and degradability)

- Method of analysis
  COD decrease

- Method
  OECD 302B / ISO 9888 / EEC 88/302 C

- Eliminability:
  95 % after 2 d OECD 302B

- Validation
  Readily eliminable from water.
  Moderately/partially biodegradable.

- Ecotoxic effects

LC50: > 10 mg/l

- Behaviour in sewage treatment plants
  According to available knowledge, causes no problems in biological decomposition in sewage treatment plants.

- General ecological information

COD value:	1184 mg O2/g		DIN 38409 H41
BOD value:	251 mg O2/g	after 5 d	EN 1899-1

13. Disposal considerations

- Product
  Can be taken to an incineration plant, if relevant regulations in force are being observed and, if necessary, after consulting the waste disposal agency, respectively the relevant authorities.
- Contaminated packaging
  Contaminated packaging should be emptied as far as possible and may be reused after appropriate cleansing.

14. Transport information

not applicable

15. Regulatory information

- Labelling according to EC directives

The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.

- Hazard symbols
  Xi - irritant

- R phrases
  41
  Risk of serious damage to eyes.

- S phrases
  26
  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  28
  After contact with skin, wash immediately with plenty of water.
  37/39
  Wear suitable gloves and eye/face protection.

- Other regulations, restrictions and prohibition regulations

- 1996/82/EC: ---

- Water hazard class (FRG): 2

16. Additional information

- Relevant R-phrases (see item 3)

41
Risk of serious damage to eyes.

50
Very toxic to aquatic organisms.

This information is based on our present state of knowledge. It should not be construed as guaranteering specific properties of the products described or their suitability for a particular application. Existing acts and regulations must be observed by the recipient of our products under his own responsibility.

TFL USA/CANADA INC.

4214 Beechwood Drive
Greensboro, NC 27410
(336) 297-2702

24-Hour Emergency Phone: 1-800-424-9300

Effective Date: 09/15/98

TOGETHER FOR LEATHER

Material Safety Data Sheet

17-120153

1. PRODUCT IDENTIFICATION

Trade Name: PELLVIT® C
Product Code: 104290
Synonyms:
Alkaline Proteolytic Enzyme

Product Code:
104290

Chemical Family: Proteolytic Enzyme Preparation
Intended Use : Enzyme

2. HAZARDOUS COMPONENTS / INGREDIENT INFORMATION

CAS#	CHEMICAL IDENTITY	EXPOSURE LIMITS				CARCINOGEN STATUS		
		ACGIH		OSHA		IARC	NTP	OSHA
		TWA	STEL	STEL	PEL			
Proprietary Concentration:	Enzyme compound < 3.00 % by wt	NE	NE	NE	NE	N	N	N

NE = Not Established N = No

3. HAZARDS IDENTIFICATION

HMIS Hazard Classification:

Health:	2*
Flammability:	1
Reactivity:	0
Personal Protection:	E

Emergency Overview: May cause allergic respiratory reaction. May cause eye, skin and respiratory tract irritation. Dust may form explosive mixtures with air.

Eye: Irritating.

Skin Contact: Irritating.

Ingestion: Can cause gastrointestinal irritation.

Inhalation: Irritating. May cause lung sensitization, an allergic reaction, which becomes evident on re-exposure to this material. May lead to obstructive disorders of the respiratory organs (occupational asthma).

4. FIRST AID MEASURES

Eyes: In case of contact, immediately flush eyes with plenty of water. Obtain medical attention if irritation develops or persists.

WWW_104(e)_017304

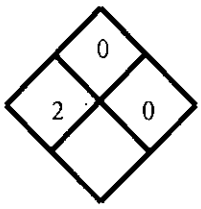
Skin: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Obtain medical attention immediately if symptoms occur. Wash clothing before reuse.

Ingestion: If swallowed, get medical attention immediately. Only induce vomiting if directed by a physician. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. If not breathing, give CPR. If breathing is difficult, give oxygen. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

NFPA Hazard Classification:



Fire Fighting Extinguishing Media: Use water spray or fog, foam, dry chemical or CO2.

Dust Explosivity: Dusts have the potential to from explosive mixtures with air. In this product, only a small portion of the dust would be organic and susceptible to ignition. Use of adequate ventilation will mitigate this potential hazard.

Fire Fighting Instructions: As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

Other Flammable Properties: Dusts at sufficient concentrations can form explosive mixtures with air.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Collect material and place in a disposal container. Obey relevant local, state and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

7. HANDLING AND STORAGE

Special Handling: Use with adequate ventilation. Minimize dust generation and accumulation. May form flammable dust-air mixtures. Avoid breathing dust or fumes.

Special Storage: Store in a cool, dry place. Keep container closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protective Equipment: A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Eye Protection: Wear safety glasses with side shields.

Skin Protection: Use impermeable gloves to minimize skin contact.

Respiratory Protection: In case of overexposure, use appropriate NIOSH-approved respiratory protective equipment.

Engineering Controls: If use operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Local exhaust and mechanical ventilation recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder
Color:	Yellow to light brown
Odor:	Faint odor
Solubility in Water:	Appreciable
Vapor Pressure:	Not available
Specific Gravity:	> 1
Boiling Point:	Not available
Evaporation Rate:	Not available
Vapor Density:	Is heavier than air
pH:	10 - 11.5 @ 100.0%

Volatile(s): Not evaluated

10. STABILITY AND REACTIVITY

Stability: This product is stable under normal storage conditions.

Hazardous Polymerization: Will not occur under normal conditions.

11. TOXICOLOGICAL INFORMATION

Toxicology Information:
The toxicological properties of this product have not been fully investigated.

12. ECOLOGICAL INFORMATION

Ecological Information: No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

14. TRANSPORT INFORMATION

Reportable Quantity: Not applicable
Department of Transportation: Not regulated

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15. REGULATORY INFORMATION

OSHA Status: This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

TSCA Inventory Status: This product or its components are listed in or exempt from the TSCA inventory requirements.

California Proposition 65: This product contains the following substances known to the State of California to cause cancer: None

This product contains the following substances known to the State of California to cause adverse reproductive effects: None

TSCA 12(b) Export Notification: This product contains the following substances subject to export notification under Section 12(b) of TSCA: None

SARA Title III: Section 311/312 - Hazardous Chemical(s): Hazard Classifications: Immediate (acute), Delayed (chronic)

16. OTHER INFORMATION

MSDS No:	172
Approved By:	Eric Massey
Title:	Regulatory Affairs
Approved Date:	09/13/97
Supersedes Date:	09/15/98

Other Information: Key to Abbreviations Used:

NA	Not Applicable
NE	Not Established
NJTSR No.	New Jersey Trade Secret Registry Number
®	Registered Trademark owned by or licensed to TFL USA/Canada, Inc, TFL Ledertechnik AG, TFL Ledertechnik GmbH & Co. KG or TFL Italia SpA

Disclaimer: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. This material safety data sheet was prepared to comply with the OSHA Hazard Communication standard (29 CFR 1910.1200).

This supersedes any previous information.

TFL USA/Canada, Inc.
4214 Beechwood Drive
Greensboro, NC 27410

Contact: Dick Hriniak
8am to 5pm Phone: (336) 297-2702
24-Hour Health/Environmental Emergency Phone: 1-800-424-9300

TOGETHER FOR LEATHER

Effective Date: 5/15/00 **Material Safety Data Sheet** MSDS No: 173

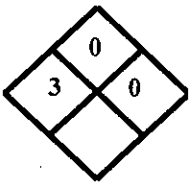
1. PRODUCT IDENTIFICATION

Trade Name: PELLVIT® LP

Product Code: 104300

Material Code: 104300

Intended Use: Enzyme preparation



NFPA RATING

Health	2*
Flammability	0
Reactivity	0
Protective Equipment	

HMIS RATING

Synonyms:
Lipase

Product Code:
104300

2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS					CARCINOGEN STATUS		
		ACGIH		OSHA		MFR.	IARC	NTP	OSHA
		TWA	STEL	PEL	STEL				
Proprietary Mixture Concentration	Enzyme Preparation > 1.00 % by wt	NE	NE	NE	NE	NE	No	No	No

NE = Not Established

3. HAZARDS IDENTIFICATION

Emergency Overview: May cause allergic respiratory reaction. May cause eye, skin and respiratory tract irritation. May cause irritation to the mouth, throat, and digestive tract if swallowed.

Eye: Irritating.

Skin Contact: Irritating.

Ingestion: Can cause gastrointestinal irritation. Causes irritation of mouth and stomach. Can cause hemorrhages from the intestine and catharsis if ingested in large doses.

Inhalation: Irritating. May cause lung sensitization, an allergic reaction, which becomes evident on re-exposure to this material. May lead to obstructive disorders of the respiratory organs (occupational asthma).

4. FIRST AID MEASURES

Eyes: In case of contact, immediately flush eyes with plenty of water. Obtain medical attention if irritation develops or persists.

Skin: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Obtain medical attention immediately if symptoms occur. Wash clothing before reuse.

Ingestion: If swallowed, get medical attention immediately. Only induce vomiting if directed by a physician. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. If not breathing, give CPR. If breathing is difficult, give oxygen. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Fire Fighting Extinguishing Media: Use water spray or fog, foam, dry chemical or CO2.

Fire Fighting Instructions: As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Collect material and place in a disposal container. Obey relevant local, state and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

7. HANDLING AND STORAGE

Special Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing dust or fumes.

Special Storage: Store in a cool, dry place. Keep container closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protective Equipment: A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Eye Protection: Wear safety glasses with side shields.

Skin Protection: Use impermeable gloves to minimize skin contact.

Respiratory Protection: In case of overexposure, use appropriate NIOSH-approved respiratory protective equipment.

Engineering Controls: If use operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Other Exposure Information:

DUST EXPOSURE LIMIT	VALUE	LIMIT
Particulates Not		

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Otherwise Classified (PNOC)	Inhalableparticulate	10mg/m3	TWA/TLV	ACGIH
	Respirable particulate	3 mg/m3	TWA/TLV	ACGIH
Particulates Not Otherwise Regulated (PNOR)	Total particulate	15 mg/m3	TWA/PEL	OSHA
	Respirable particulate	5 mg/m3	TWA/PEL	OSHA

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder
Color:	Light tan
Odor:	Faint odor
Solubility in Water:	Appreciable
Vapor Pressure:	Not available
Boiling Point:	Not available
Evaporation Rate:	Is slower than Butyl Acetate
Vapor Density:	Is heavier than air
pH:	5 - 6 @ 10.0%

Volatile(s): Not evaluated

10. STABILITY AND REACTIVITY

Stability: This product is stable under normal storage conditions.

Hazardous Polymerization: Will not occur under normal conditions.

Conditions of Reactivity: High temperature.

11. TOXICOLOGICAL INFORMATION

Toxicology Information:
The toxicological properties of this product have not been fully investigated.

12. ECOLOGICAL INFORMATION

Ecological Information: No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

14. TRANSPORT INFORMATION

Department of Transportation: Not regulated

15. REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard.

SARA Title III: Section 311/312 - Hazard Communcation Standard (HCS): Hazard Classifications: Immediate (acute), Delayed (chronic)

SARA Title III: Section 313 Toxic Chemical List (TCL): This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Chemical Name	CAS Number
Glycol Ethers	Not Available

TSCA Section 8(b) - Inventory Status: This product or its components are listed in or exempt from the TSCA inventory requirements.

TSCA Seciton 12(b) - Export Notification: This product contains the following substances subject to export notification under Section 12(b) of TSCA: None

State Regulations:

California Proposition 65: This product contains the following substances known to the State of California to cause cancer: None

This product contains the following substances known to the State of California to cause adverse reproductive effects: None

16. OTHER INFORMATION

MSDS No:	173
Approved By:	Eric Massey
Title:	Regulatory Affairs
Approved Date:	09/13/97
Supersedes Date:	09/13/97

Disclaimer: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. This material safety data sheet was prepared to comply with the OSHA Hazard Communication standard (29 CFR 1910.1200).

This supersedes any previous information.

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ETT

MATERIAL SAFETY DATA SHEET

Clariant

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

PENETRATING BROWN 2R CONC POWDER
132000 VERSION: 01 REVISED DATE: 11/01/1995

For Chemical Emergency
Call CHEMTREC - Day or Night
1-800-424-9300
WOLVERINE
ATTN: MADELIENE BARRETT

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

------ H M I S ------
HEALTH 1
FLAMMABILITY 1
REACTIVITY 0
PERSONAL PROTECTION B

19-240227

SECTION 01 - PRODUCT IDENTIFICATION

TRADE NAME: PENETRATING BROWN 2R CONC POWDER
PRODUCT CODE: 132000
VERSION NUMBER: 01
ALPHA CODE: NOT AVAILABLE
CAS NUMBER: 3618-62-0
SYNONYMS: C.I. MORDANT BROWN 33, C.I. 13250
CHEMICAL FAMILY: MONOAZO DYE
FORMULA: C12H11N5O6S-NA
PRIMARY PRODUCT USE: DATA NOT YET AVAILABLE

SECTION 02 - COMPOSITION INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	WT.%	PEL/TLV
NONE UNDER 29 CFR 1910.1200			
NONE UNDER TITLE III OF SARA			
NONE UNDER CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)			

SECTION 03 - HAZARDS IDENTIFICATION

(REFER TO SECTION 11 FOR ADDITIONAL INFORMATION)
EXPECTED ROUTE OF ENTRY:
SKIN CONTACT:
SKIN ABSORPTION:
EYE CONTACT:
INHALATION:
INGESTION:

EFFECTS OF EXPOSURE:
ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION 11. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE. AND NO HEALTH EVALUATION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 03 - HAZARDS IDENTIFICATION (CONT.)

NONE: X
OSHA:
NTP:
IARC:
OTHER:

SECTION 04 - FIRST AID MEASURES

FIRST AID FOR EYES:
FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR SKIN:
WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

FIRST AID FOR INHALATION:
REMOVE SUBJECT TO FRESH AIR. SEEK MEDICAL AID IF LUNG IRRITATION PERSISTS OR IF BREATHING BECOMES DIFFICULT.

FIRST AID FOR INGESTION:
IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:
NONE KNOWN

SECTION 05 - FIRE FIGHTING MEASURES

FLASH POINT ('F): NOT AVAILABLE
FLAMMABLE LIMITS:
LEL: UNKNOWN
UEL: UNKNOWN

AUTOIGNITION TEMPERATURE ('F): UNKNOWN

HAZARDOUS COMBUSTION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON, NITROGEN AND SULFUR.

EXTINGUISHING MEDIA:
WATER: X
ALCOHOL FOAM: X
CO2: X
DRY CHEMICAL: X
WATER/FOG SPRAY:

MATERIAL SAFETY DATA SHEET

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SECTION 05 - FIRE FIGHTING MEASURES (CONT.)

NO EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PROCEDURES:
NONE KNOWN

UNUSUAL FIRE AND EXPLOSION HAZARDS:
ORGANIC DUSTS HAVE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION. MAINTAIN GOOD HOUSEKEEPING FOR CONTROL OF DUST.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR SWEPT UP. LARGER SPILLS SHOULD BE COLLECTED BY SHOVELLING INTO APPROPRIATE WASTE COLLECTION CONTAINERS. CLEAN UP BY FLUSHING WITH WATER IF DESIRED OR REMOVAL OF CONTAMINATED SOIL. UTILIZE RECOMMENDED CLOTHING AND EQUIPMENT.

SECTION 07 - HANDLING AND STORAGE

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED UNDER NORMAL USE. USE NIOSH APPROVED RESPIRATORY PROTECTION WHERE EXPOSURE LEVELS EXCEED REGULATORY LIMITS FOR NUISANCE DUST.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

OTHER PROTECTIVE EQUIPMENT:
NONE KNOWN

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

EXPOSURE LIMITS: NONE ON PRODUCT

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION):
NOT DETERMINED

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: BROWN POWDER, MILD ODOR
ODOR THRESHOLD: NO DATA AVAILABLE
PH (% IN WATER): NOT AVAILABLE
SOLUBILITY IN WATER: SOLUBLE
SPECIFIC GRAVITY: NOT AVAILABLE
BOILING POINT ('F): NOT AVAILABLE
MELTING POINT ('F): NOT AVAILABLE
FREEZING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE(MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR=1): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
LOSS ON DRYING(%): NOT AVAILABLE
VOC(EPA METHOD 24/24A): NOT AVAILABLE
OCTANOL/WATER PARTITION COEFFICIENT: NO DATA AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY: STRONG OXIDIZING AGENTS

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED
EYE IRRITATION-RABBIT: NOT TESTED

SECTION 12 - ECOLOGICAL INFORMATION

BIOLOGICAL ELIMINATION:
NONE % ANALYSIS: METHOD: NONE

AQUATIC TOXICITY:

MATERIAL SAFETY DATA SHEET

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CLARIANT Corporation: (704) 331-7000

SECTION 12 - ECOLOGICAL INFORMATION (CONT.)

SPECIES: NONE	LC100: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 50: NONE	MG/L	TIME:	H
SPECIES: NONE	LC 0: NONE	MG/L	TIME:	H

BACTERIAL INHIBITION:
NO INHIBITION (MG/L): NOT DETERMINED
50% INHIBITION (MG/L): NOT DETERMINED

BIOCHEMICAL OXYGEN DEMAND(BOD5-MG/L): NOT DETERMINED
CHEMICAL OXYGEN DEMAND(COD-MG/L): NOT DETERMINED

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS.
LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED IN APPROVED SYSTEMS.

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS

SECTION 14 - TRANSPORT INFORMATION

DOT REGULATED: NO
HAZARD CLASSIFICATION: NOT REGULATED

SHIPPING NAME: TEXTILE DYEING OR PRINTING, PIGMENTED, OR REDUCERS OR EXTENDERS, TEXTILE DYEING OR PRINTING PASTE. NMFC 154800

DOT REGULATED BULK ONLY: NO

CANADIAN TRANSPORT REGULATION: NOT DETERMINED

INTERNATIONAL AIR TRANSPORTATION REGULATIONS: NOT DETERMINED

INTERNATIONAL MARITIME DANGEROUS GOODS REGULATION: NOT DETERMINED

SECTION 15 - REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

PENETRATING BROWN 2R CONC POWDER
132000 VERSION: 01 REVISED DATE: 11/01/1995

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1-800-424-9300

For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 15 - REGULATORY INFORMATION (CONT.)

REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA (SECTION 311/312):
REACTIVE HAZARD: N
PRESSURE HAZARD: N
FIRE HAZARD: N
IMMEDIATE/ACUTE: N
DELAYED/CHRONIC: N
SARA(SECTION 302):
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: N

SARA(SECTION 313 - TOXIC CHEMICAL):
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CLEAN WATER ACT - PRIORITY POLLUTANTS:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

CLEAN AIR ACT - VOLATILE ORGANIC COMPOUNDS:
VOC(EPA METHOD 24/24A): NOT AVAILABLE
LOSS ON DRYING (%): NOT AVAILABLE

CERCLA (FOR COMPONENTS LISTED IN SECTION 2): NO
LOWEST RQ: NONE

RCRA HAZARDOUS WASTE: NO - NOT AS SOLD.
RCRA #: NONE

FDA: THIS PRODUCT IS NOT REGISTERED WITH THE FDA

USDA: THIS PRODUCT IS NOT REGISTERED WITH THE USDA

CEPA: LISTED AS PRIORITY SUBSTANCE: NOT DETERMINED
LISTED AS TOXIC SUBSTANCE: NOT DETERMINED
EXPORT IS NOTIFIABLE: NOT DETERMINED
LISTED ON DSL: NOT DETERMINED
LISTED ON NDSL: NOT DETERMINED
CEPA STATUS:
PRODUCT NOT YET EVALUATED

WHMIS: NOT EVALUATED

SECTION 16 - OTHER INFORMATION

OTHER PRECAUTIONS:

MATERIAL SAFETY DATA SHEET

CLARIANT CORPORATION
4000 MONROE ROAD
CHARLOTTE, N.C. 28205

PENETRATING BROWN 2R CONC POWDER
132000 VERSION: 01 REVISED DATE: 11/01/1995

Clariant

For Chemical Emergency
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For MSDS Info: (704) 331-7710
CLARIANT Corporation: (704) 331-7000

SECTION 16 - OTHER INFORMATION (CONT.)

NONE KNOWN

STATE REGULATORY INFORMATION:
PENNSYLVANIA: NON-HAZARDOUS COMPONENTS BEING WITHHELD AS TRADE SECRET INFORMATION.

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION 2 OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

LABEL INFORMATION:
LABEL HAZARDS:

CAUTION!
ORGANIC DUSTS HAVE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION.

LABEL PRECAUTIONS:

MAINTAIN GOOD HOUSEKEEPING FOR DUST CONTROL. KEEP CONTAINER CLOSED WHEN NOT IN USE.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE.

NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. CLARIANT CORPORATION ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

CLARIANT CORPORATION

MATERIAL SAFETY DATA SHEET

19-120606

IDENTITY: PENETRATOR 7312

HMIS/NFPA RATINGS: HEALTH: 1 FIRE: 0 REACTIVITY: 0 SPECIFIC HAZARDS: NONE

I MANUFACTURER INFORMATION

Union Specialties, Inc.
3 Malcolm Hoyt Drive
Newburyport, MA 01950

EMERGENCY TELEPHONE NUMBER: (978) 465-1717
INFORMATION TELEPHONE NUMBER: (978) 465-1717
DATE PREPARED: February 9, 1991
DATE REVISED: February 19, 2002

II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENT	OSHA PEL	ACGIH TLV	OPTIONAL %
NONE			

III PHYSICAL/CHEMICAL CHARACTERISTICS

MELTING POINT: Not Determined
BOILING POINT: Solid
VAPOR DENSITY (AIR = 1): > 1
SOLUBILITY IN WATER: Soluble.
APPEARANCE: Tan powder with slight odor.

SPECIFIC GRAVITY (H_2O = 1): Not Determined
VAPOR PRESSURE (mm Hg): Not Determined
EVAPORATION RATE (BUTYL ACETATE = 1): > 1
PERCENT VOLATILES BY WEIGHT: 93-100%
V.O.C: None

IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Non-combustible
FLAMMABLE LIMITS: Not Determined
FLAMMABILITY CLASSIFICATION - OSHA: Non-combustible
EXTINGUISHING MEDIA: Water, Carbon dioxide, Foam.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

V REACTIVITY DATA

STABILITY: √ STABLE

UNSTABLE

INCOMPATIBILITY: Unknown.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition temperature 320°C (608°F)

HAZARDOUS POLYMERIZATION: MAY OCCUR

√ WILL NOT OCCUR

CONDITIONS TO AVOID: Unknown.

VI HEALTH HAZARD DATA

PRIMARY ROUTE(S) OF ENTRY: **INHALATION?** Yes **SKIN?** No **INGESTION?** No

CARCINOGEN: **NTP?** No **IARC MONOGRAPHS?** No **OSHA REGULATED?** No

EFFECTS OF OVEREXPOSURE: Irritation to eyes and respiratory organs. Irritating effects on respiratory organs (on rat): about 5500 mg/kg.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Unknown.

EMERGENCY FIRST AID PROCEDURES: **Inhalation:** Move subject to fresh air. **Eyes:** Flush eyes with large amounts of water for at least 15 minutes. Consult a doctor. **Skin:** Wash affected areas with soap and water. Consult a physician if irritation persists. **Ingestion:** If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

VII PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wash area with water.

WASTE DISPOSAL METHOD: Dispose in accordance with local, state, and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool dry area. Keep container closed.

OTHER PRECAUTIONS: Keep dust particulate to a minimum.

VIII CONTROL MEASURES

RESPIRATORY PROTECTION: NIOSH approved dust respirator.

VENTILATION: Local exhaust to keep dust level down.

PROTECTIVE GLOVES: Impervious gloves.

EYE PROTECTION: Chemical goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Eyewash station near or at work area.

WORK /HYGIENIC/MAINTENANCE PRACTICES: Wash thoroughly after handling. Practice good housekeeping. keeping dust particulate to a minimum.

IX REGULATORY INFORMATION

TOXIC SUBSTANCE CONTROL ACT (TSCA)

All Components of this product are listed or are exempt from listing on the U.S. Toxic Substance Control Act (TSCA) Chemical Substance Inventory; 40 CFR 723.250 Section V.

SARA 313

This product contains chemicals at or above de minimis concentrations subject to the reporting of SARA Title III Section 313, 40CFR372.

CHEMICAL	CAS NO.
Formaldehyde (≤ 100 ppm)	50-00-0

"The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Union Specialties, Inc. assumes no responsibility for personal injury or property damage to vendees, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material."

MATERIAL SAFETY DATA SHEET

IDENTITY: PENETRATOR FF

HMIS/NFPA RATINGS: HEALTH: 1 FIRE: 0 REACTIVITY: 0 SPECIFIC HAZARDS: NONE

I MANUFACTURER INFORMATION

Union Specialties, Inc.
3 Malcolm Hoyt Drive
Newburyport, MA 01950

EMERGENCY TELEPHONE NUMBER: (978) 465-1717
INFORMATION TELEPHONE NUMBER: (978) 465-1717
DATE PREPARED: October 16, 2002
DATE REVISED: October 16, 2002

II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENT	OSHA PEL	ACGIH TLV	OPTIONAL %
NONE KNOWN OR ESTABLISHED			

III PHYSICAL/CHEMICAL CHARACTERISTICS

MELTING POINT: Not Determined
BOILING POINT: Solid
VAPOR DENSITY (AIR = 1): > 1
SOLUBILITY IN WATER: Soluble.
APPEARANCE: Tan powder with slight odor.

SPECIFIC GRAVITY (H_2O = 1): Not Determined
VAPOR PRESSURE (mm Hg): Not Determined
EVAPORATION RATE (BUTYL ACETATE = 1): > 1
PERCENT VOLATILES BY WEIGHT: 93-100%
V.O.C: None

IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Non-combustible
FLAMMABLE LIMITS: Not Determined
FLAMMABILITY CLASSIFICATION - OSHA: Non-combustible
EXTINGUISHING MEDIA: Water, Carbon dioxide, or Foam.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

V REACTIVITY DATA

STABILITY: √ STABLE

UNSTABLE

INCOMPATIBILITY: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: MAY OCCUR

√ WILL NOT OCCUR

CONDITIONS TO AVOID: None known.

VI HEALTH HAZARD DATA

PRIMARY ROUTE(S) OF ENTRY: INHALATION? Yes **SKIN?** No **INGESTION?** No

CARCINOGEN: NTP? No **IARC MONOGRAPHS?** No **OSHA REGULATED?** No

EFFECTS OF OVEREXPOSURE: None known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

EMERGENCY FIRST AID PROCEDURES: **Inhalation:** Move subject to fresh air. If difficulty breathing, seek medical attention. **Eyes:** Flush eyes with large amounts of water for at least 15 minutes. Seek medical attention. **Skin:** Wash affected areas with soap and water. Consult a physician if irritation persists. **Ingestion:** If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

VII PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wash area with water.

WASTE DISPOSAL METHOD: Dispose in accordance with local, state, and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool dry area. Keep container closed.

OTHER PRECAUTIONS: Keep dust particulate to a minimum.

VIII CONTROL MEASURES

RESPIRATORY PROTECTION: NIOSH approved dust respirator.

VENTILATION: Local exhaust to keep dust level down.

PROTECTIVE GLOVES: Impervious gloves.

EYE PROTECTION: Chemical goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Eyewash station near or at work area.

WORK /HYGIENIC/MAINTENANCE PRACTICES: Wash thoroughly after handling. Practice good housekeeping keeping dust particulate to a minimum.

IX REGULATORY INFORMATION

TOXIC SUBSTANCE CONTROL ACT (TSCA)

All Components of this product are listed or are exempt from listing on the U.S. Toxic Substance Control Act (TSCA) Chemical Substance Inventory; 40 CFR 723.250 Section V.

SARA 313

This product contains chemicals at or above de minimis concentrations subject to the reporting of SARA Title III Section 313, 40CFR372.

CHEMICAL	CAS NO.
NONE	

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DATE: 03/02/95 ACCT NBR: 889490001 INDEX NBR: 50166256 CAT NBR: MK399921
PO NBR: 15-274388
PERHL

PERCHLORIC ACID, 60%, 70% SOLUTIONS

Material Safety Data Sheet

Mallinckrodt Chemical, Inc.
P.O. Box 800
Paris, Kentucky 40362

Emergency Telephone Number
314-539-1600

Effective Date: 06-17-93 Supersedes 11-14-85

PRODUCT IDENTIFICATION:

Synonyms: Perchloric acid; perchloric acid soution; dioxonium perchlorate solution

Formula CAS No.: 7601-90-3

Molecular Weight: 100.46

Hazardous Ingredients: Perchloric acid

Chemical Formula: HClO4, in aqueous solution.

PRECAUTIONARY MEASURES

DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. CAUSES SEVERE BURNS. HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes, on skin, or on clothing.
Avoid breathing vapor.
Keep container closed.
Use with adequate ventilation. Wash thoroughly after handling.
Keep from contact with clothing and other combustible materials.
Do not store near combustible materials.
Remove and wash contaminated clothing promptly.

EMERGENCY FIRST AID

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. If swallowed, DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In all cases call a physician.
SEE SECTION 5.

DOT Hazard Class: PSN: Perchloric acid (> 50% - < 72%) Class: 5.1; (8)
ID#: UN1873 PG I

Physical Data — SECTION 1

Appearance: Colorless to slight yellow liquid.

Odor: Odorless.

Solubility: Infinitely soluble in water.

Boiling Point: 203 C (397 F).

Vapor Density (Air=1): No information found.

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Melting Point: -18 C (-0.4 F).

Vapor Pressure (mm Hg): No information found.

Specific Gravity: 1.5-1.6

Evaporation Rate: No information found.

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 3
Other: Oxidizer

Fire and Explosion Information — SECTION 2

Fire:	Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Can react with metals to release flammable hydrogen gas. Reactions may cause fire and explosion. In the event of a fire, assume that organic materials are involved and that an explosion may occur.
Explosion:	May form sensitive powerful explosive mixtures with organic materials.
Fire Extinguishing Media:	Water spray can be used to extinguish fires and cool fire-exposed containers.
Special Information:	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Reactivity Data — SECTION 3

Stability:	Stable under ordinary conditions of use and storage. Heat will contribute to instability.
Hazardous Decomposition Products:	Emits toxic fumes of chlorine when heated.
Hazardous Polymerization:	This substance does not polymerize.
Incompatibilities:	Combustible materials, organic chemicals, strong dehydrating agents, reducing and oxidizing agents. Reacts violently with benzene, calcium hydride, wood, acetic acid, charcoal, olefins, ethanol, sulfur and sulfuric acid.

Leak/Spill Disposal Information — SECTION 4

Ventilate area of area of leak or spill. Remove all sources of ignition. Clean-up personnel should wear protective clothing and respiratory equipment suitable for toxic or corrosive fluids or vapors. Persons not wearing protective equipment or clothing should be restricted from area of spill until clean-up has been completed. Remove spilled perchloric acid by immediate and thorough washing with large amounts of water. Reduce with a weak reducung

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agent, (hypobisulfite or ferrous salt, plus sulfuric acid as an accelerator have been recommended), then neutralize with sodium carbonate or calcium oxide. Waste should be sent to an approved disposal facility.

Ensure compliance with local, state and federal regulations.

Health Hazard Information — SECTION 5

A. Exposure/Health Effects

Inhalation:	Corrosive. Inhalation of vapors or mists will cause irritation with coughing, choking, and inflammation of the nose, throat, and upper respiratory tract.
Ingestion:	Corrosive. May cause burns of mouth, throat, and stomach, nausea, vomiting and diarrhea.
Skin Contact:	Corrosive. Can cause severe burns with discoloration and pain.
Eye Contact:	Corrosive. Permanent visual damage may occur. Highly corrosive to tissue.
Chronic Exposure:	Repeated exposure to fumes may cause erosion of teeth. Repeated exposure to dilute solutions may cause skin rash.
Aggravation of Pre-existing Conditions:	Persons with pre-existing skin disorders or impaired respiratory function may be more susceptible to the effects of the substance.

B. FIRST AID

Inhalation:	Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion:	If swallowed, DO NOT induce vomiting. Give large quantities of water or milk if available. Call a physician immediately. Never give anything by mouth to an unconscious person.
Skin Exposure:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician immediately.
Eye Exposure:	Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY (RTECS, 1993)

Oral rat LD50: 1100 mg/kg.

Occupational Control Measures — SECTION 6

Airborne Exposure Limits: None established.

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Ventilation System:	Do Not Use Perchloric Acid In A Hood Designed For Other Purposes. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practice", most recent edition, for details on proper ventilation design.
Personal Respirators (NIOSH Approved)	A supplied air, full facepiece respirator, air-lined hood, or self-contained breathing apparatus is recommended.
Skin Protection:	Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure.
Eye Protection:	Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information SECTION 7

Reagent bottle - maximum 1 pound, glass-stoppered, glass bottle; kept in a heavy glass tray with larger capacity. Additional laboratory storage should be in original bottles inside a glass container padded with glass wool and having greater capacity than the container. Carboys and large bottles should be stored on acid-resisting noncombustible shelves, in a noncombustible structure. All storage must be separated from combustible materials, organic materials, strong dehydrating agents; oxidizing and reducing agents. Perchloric acid must be stored where it will not freeze (freezing point about -4 F). Protect against physical damage. Electrical wiring, etc., in storage areas must be of watertight type to protect against corrosive action of vapors.

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PERHL

Addendum to Material Safety Data Sheet

REGULATORY STATUS

Hazard Categories for SARA
Section 311/312 Reporting

Acute	Chronic	Fire	Pressure	Reactive
X	X			X

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Product or Components of Product:	SARA EHS Sec. 302 RQ	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals Name List	SARA Sec. 313 Chemicals Chemical Category	CERCLA Sec.103 RQ lbs	RCRA Sec. 261.33
PERCHLORIC ACID, 60%, 70% SOLUTIONS codes: 2764 2765 5947 5896 2767 8828 3999 2766 The following percentages correspond one to one with the product codes given here. Perchloric acid (7601-90-3) 60%, 60%, 60%, 70%, 70%, 70%, 70%, 70%	No	No	No	No	No	No

SARA Section 302 EHS RQ:
Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ:
Threshold Planning Quantity of Extremely Hazardous substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals:
Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

CERCLA Sec. 103:
Comprehensive Enviromental Response, Compensation and Liability Act (Superfund) Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

RCRA:
Resource Conservation and Recovery Act. Commercial chemical product wastes designated as acute hazards or toxic under 40 CFR 261.33

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44.000131

**** MATERIAL SAFETY DATA SHEET ****

Perchloric Acid, 60.0%
18230

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Perchloric Acid, 60.0%
Catalog Numbers:
S76875ACS-2, S76875ACS-4, A228 7LB, A228-1LB, A228-7LB, A2286 1LB, A2286-1LB, A22861LB, A2287LB, A228S 7LB, A228S-7LB, A228S7LB, A229 8LB, A229-1LB, A229-8LB, A2296 1LB, A2296-1LB, A22961LB, A2298LB, A229S 8LB, A229S-8LB, A229S8LB, A469 500, A469-1, A469-250, A469-500, A469500, A511-212, A511-500, A511212001, S76875ACS2, S76875ACS4, S7687SACS4
Synonyms:
Dioxonium Perchlorate, Hydronium Perchlorate
Company Identification: Fisher Scientific
1 Reagent Lane
Fairlawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
7601-90-3	Perchloric acid	60-72	231-512-4
7732-18-5	Water	Balance	231-791-2

Hazard Symbols: O C
Risk Phrases: 34 8

**** SECTION 3 - HAZARDS IDENTIFICATION ****

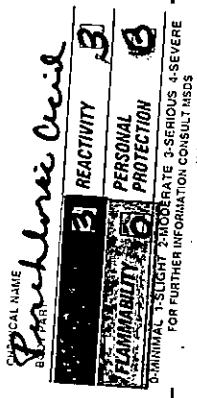
EMERGENCY OVERVIEW
Appearance: clear, colorless.
Danger! Corrosive. Oxidizer. May be harmful if swallowed. Causes eye and skin burns. Causes digestive and respiratory tract burns.
Target Organs: None.

Potential Health Effects
Eye:
Causes eye burns.
Skin:
Causes skin burns.
Ingestion:
Causes gastrointestinal tract burns.
Inhalation:
May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema.
Chronic:
Prolonged or repeated inhalation may cause nosebleeds, nasal congestion, erosion of the teeth, perforation of the nasal septum, chest pain and bronchitis. Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. Chronic ingestion may cause effects similar to those of acute ingestion.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed.
Skin:
Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.
Ingestion:
Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation:
Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. DO NOT use mouth-to-mouth respiration. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician:
Treat symptomatically and supportively.

**** SECTION 5 - FIRE FIGHTING MEASURES ****



General Information:
Strong oxidizer. Contact with combustible materials may cause a fire. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.
Extinguishing Media:
Use water spray to cool fire-exposed containers. Use water only! Do NOT get water inside containers. Cool containers with flooding quantities of water until well after fire is out. For small fires DO NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires, flood fire area with water from a distance.
Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
NFPA Rating: Not published.
Explosion Limits, Lower: None available
Upper: None available

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:
Use water spray to disperse the gas/vapor. Cover with sand, dry lime or soda ash and place in a closed container for disposal.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:
Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Avoid contact with clothing and other combustible materials. Do not ingest or inhale. Use with adequate ventilation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage:
Keep away from heat, sparks, and flame. Keep away from sources of ignition. Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Perchloric acid	none listed	none listed	none listed
Water	none listed	none listed	none listed

OSHA Vacated PELs:
Perchloric acid:
No OSHA Vacated PELs are listed for this chemical.
Water:
No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin:
Wear appropriate protective gloves to prevent skin exposure.
Clothing:
Wear appropriate protective clothing to prevent skin exposure.
Respirators:
Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Liquid
Appearance: clear, colorless
Odor: odorless
pH: Acidic.
Vapor Pressure: Not available.
Vapor Density: 3.46

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Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 102 deg F
Freezing/Melting Point: 25 deg F
Decomposition Temperature: Not available.
Solubility: Soluble in water
Specific Gravity/Density: 1.7
Molecular Formula: HClO4
Molecular Weight: 100.4576

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Combines vigorously with water with the evolution of heat. May undergo spontaneous and explosive decomposition. This material is a strongly acidic, powerful oxidizing substance. The anhydrous form of this material is an explosion hazard.
Conditions to Avoid:
Incompatible materials, excess heat, combustible materials, organic materials, reducing agents, temperatures above 220&C, alkaline materials, heating to decomposition, dehydrating agents.
Incompatibilities with Other Materials:
Acids, Acetic Anhydride, Alcohols, Aniline and Formaldehyde, Antimony III Compounds, Bismuth, Cellulose, Charcoal, Dibutyl Sulfoxide, Diethyl Ether, Dimethyl Sulfoxide, Fluorine, Glycerine and Lead Oxide, Glycol Ethers, Glycols, Hydriodic Acid, Hydrogen, Hypophosphites, Ketones, Methyl Alcohol, Nitrogen Iodide, Nitrosophenol, Organic Materials, Paper, Phosphorus Pentoxide, Phosphorus Pentoxide and Chloroform, Sodium Iodide, Steel, Sulfoxides, Sulfur Trioxide, Wood. May react violently or explosively with many of these compounds.
Hazardous Decomposition Products:
Chlorine dioxide, which may be spontaneously explosive.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 7601-90-3: SC7500000
CAS# 7732-18-5: ZC0110000
LD50/LC50:
CAS# 7601-90-3: Oral, rat: LD50 = 1100 mg/kg.
CAS# 7732-18-5: Oral, rat: LD50 = 90 mL/kg.
Carcinogenicity:
Perchloric acid -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Water -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology:
No data available.
Teratogenicity:
No data available.
Reproductive Effects:
No data available.
Neurotoxicity:
No data available.
Mutagenicity:
No data available.
Other Studies:
None.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:
No information available.
Environmental Fate:
No information reported.
Physical/Chemical:
No information available.
Other:
No information available.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.
RCRA D-Series Maximum Concentration of Contaminants:
None listed.
RCRA D-Series Chronic Toxicity Reference Levels: None listed.
RCRA F-Series: None listed.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
Shipping Name: PERCHLORIC ACID
Hazard Class: 5.1
UN Number: UN1873

Packing Group: I
IMO
No information available.
IATA
No information available.
RID/ADR
No information available.
Canadian TDG
Shipping Name: PERCHLORIC ACID
Hazard Class: 5.1(8)
UN Number: UN1873

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
TSCA
CAS# 7601-90-3 is listed on the TSCA inventory.
CAS# 7732-18-5 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA
Section 302 (RQ)
None of the chemicals in this material have an RQ.
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 7601-90-3: acute, flammable.
Section 313
No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
CAS# 7601-90-3 is considered highly hazardous by OSHA.
STATE
Perchloric acid can be found on the following state right to know lists: New Jersey, Florida, Pennsylvania, Massachusetts.
Water is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level:
None of the chemicals in this product are listed.
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: O C
Risk Phrases:
R 34 Causes burns.
R 8 Contact with combustible material may cause fire.
Safety Phrases:
S 17 Keep away from combustible material.
S 24/25 Avoid contact with skin and eyes.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
WGK (Water Danger/Protection)
CAS# 7601-90-3: 1
CAS# 7732-18-5: No information available.
Canada
CAS# 7601-90-3 is listed on Canada's DSL/NDSL List.
CAS# 7732-18-5 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of C, E, F.
CAS# 7601-90-3 is not listed on Canada's Ingredient Disclosure List.
CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
Exposure Limits
CAS# 7601-90-3:. OEL-CZECHOSLOVAKIA:TWA 1 mg/m3;STEL 2 mg/m3

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 12/13/1994 Revision #7 Date: 1/05/1998

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users

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DATE: 02/23/99 ACCT: 889490001
INDEX: D90531176 CAT NO: A22958LB PO NBR: 15-088207

should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

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19-120 604 Rev N/4

Schill+Seilacher

Material Safety Data Sheet
According to 91/155 EC

Printing date 30.06.94 Reviewed on 30.03.94

1 Identification of substance

· Product details

· Trade name PERFECTOL HQ

· Article number: 105900

· Manufacturer/Supplier:
Schill & Seilacher GmbH & Co
Schönaicherstraße 205
D-71032 Böblingen

Tel.: 07031/282-0
Fax: 07031/282-160

· Informing department: Product safety department.
· Emergency information:
During normal opening times: environment protection department
at other times: factory fire brigade

2 Composition/Data on components:

· Chemical characterization
· Description:
Mixture consisting of the following components.
Neutraloils and modified oil acid

· Dangerous components:

CAS NO.	Designation	%	Index	R-phrases
Void				

· Additional information
The product does not contain any carcinogenic or mutagenic substances

3 Hazards identification

· Hazard designation: void
· Information pertaining to particular dangers for man and environment
void
· Classification system
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

4 First aid measures

· General information No special measures required.
· After inhalation Supply fresh air; consult doctor in case of symptoms.
· After skin contact The product is not skin irritating.
· After eye contact
Rinse opened eye for several minutes under running water.
· After swallowing In case of persistent symptoms consult doctor.

Material Safety Data Sheet
According to 91/155 EC

Printing date 30.06.94 Reviewed on 30.03.94

Trade name PERFECTOL HQ

5 Fire fighting measures

· Suitable extinguishing agents
Use fire fighting measures that suit the environment.
· Protective equipment: No special measures required.

6 Accidental release measures

· Person-related safety precautions: Not required.
· Measures for environmental protection: No special measures required.
· Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· Additional information: No dangerous materials are released.

7 Handling and storage

· Handling
· Information for safe handling: No special measures required.
· Information about protection against explosions and fires:
No special measures required.

· Storage
· Requirements to be met by storerooms and containers:
No special requirements.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions: None.
· Storage class
· Class according to regulation on inflammable liquids: Void

8 Exposure controls and personal protection

· Additional information about design of technical systems:
No further data; see item 7.

· Components with critical values that require monitoring at the workplace:

CAS No.	Designation of material	%	Type	Value	Unit

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· Additional information:
The lists that were valid during the compilation were used as basis.

· Personal protective equipment
· General protective and hygienic measures
The usual precautionary measures should be adhered to in handling the chemicals.
· Breathing equipment: Not required.
· Protection of hands: Not required.
· Eye protection: Safety glasses recommended during refilling.

9 Physical and chemical properties:

· Form: Fluid
· Colour: White
· Smell: Weak, characteristic

	Value/Range	Unit	Method
· Change in condition			
· Melting point/Melting range:	Not determined		
· Boiling point/Boiling range:	Not determined		

(Contd. on page 3)

Material Safety Data Sheet
According to 91/155 EC

Printing date 30.06.94 Reviewed on 30.03.94

Trade name PERFECTOL HQ

(Contd. of page 2)

· Flash point:	Not applicable
· Self-inflammability:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive.
· Density	Not determined
· Solubility in / Miscibility with Water:	Dispersible
· pH-value: (100 g/l) at 20 ° C	7,0-8,0

10 Stability and reactivity

· Conditions to be avoided:
No decomposition if used according to specifications.
· Dangerous reactions No dangerous reactions known
· Dangerous products of decomposition: None

11 Toxicological information

· Acute toxicity:
· Primary irritant effect:
· on the skin: No irritant effect.
· on the eye: No irritant effect.
· Sensitization: No sensitizing effect known.
· Additional toxicological information:
The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information:

· General notes:
Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

13 Disposal considerations

· Product:
· Recommendation
Must be specially treated under adherence to official regulations.

· Uncleaned packagings:
· Recommendation:
Disposal must be made according to official regulations.

14 Transport information

· Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)
· ADR/RID-GGVS/E Class: -
· Number/Letter: -

· Maritime transport IMDG/GGVSea:
· IMDG/GGVSea Class: -

(Contd. on page 4)

Material Safety Data Sheet
According to 91/155 EC

Printing date 30.06.94 Reviewed on 30.03.94

Trade name PERFECTOL HQ

(Contd. of page 3)

· Air transport ICAO-TI and IATA-DGR:
· ICAO/IATA Class: -

15 Regulatory information

· Designation according to EC guidelines:
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.
The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).
Observe the normal safety regulations when handling chemicals

· National regulations

· Classification according to VbF: Void

· Water hazard class:
Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing data specification sheet:
Environment protection department.

Material Safety Data Sheet
According to 91/155 EC

Printing date 01.07.94 Reviewed on 30.06.94

1 Identification of substance

· Product details

· Trade name PERFECTOL UKB

· Article number: 104900

· Manufacturer/Supplier:
Schill & Seilacher GmbH & Co
Schönaicherstraße 205
D-71032 Böblingen
Tel.: 07031/282-0
Fax: 07031/282-160

· Informing department: Product safety department.
· Emergency information:
During normal opening times: environment protection department
at other times: factory fire brigade

2 Composition/Data on components:

· Chemical characterization
· Description: Mixture of synthetic oils and emulsifiers

· Dangerous components:

CAS NO.	Designation	%	Index	R-phrases
Void				

· Additional information
The product does not contain any carcinogenic or mutagenic substances

3 Hazards identification

· Hazard designation: void
· Information pertaining to particular dangers for man and environment
void
· Classification system
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

4 First aid measures

· General information No special measures required.
· After inhalation Supply fresh air; consult doctor in case of symptoms.
· After skin contact The product is not skin irritating.
· After eye contact
Rinse opened eye for several minutes under running water.
· After swallowing In case of persistent symptoms consult doctor.

5 Fire fighting measures

· Suitable extinguishing agents
Use fire fighting measures that suit the environment.

(Contd. on page 2)

Material Safety Data Sheet
According to 91/155 EC

Printing date 01.07.94 Reviewed on 30.06.94

Trade name PERFECTOL UKB

(Contd. of page 1)

· Protective equipment: No special measures required.

6 Accidental release measures

· Person-related safety precautions: Not required.
· Measures for environmental protection: No special measures required.
· Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· Additional information: No dangerous materials are released.

7 Handling and storage

· Handling
· Information for safe handling: No special measures required.
· Information about protection against explosions and fires:
No special measures required.

· Storage
· Requirements to be met by storerooms and containers:
No special requirements.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions: None.

8 Exposure controls and personal protection

· Additional information about design of technical systems:
No further data; see item 7.

· Components with critical values that require monitoring at the workplace:

CAS No.	Designation of material	%	Type	Value	Unit

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· Additional information:
The lists that were valid during the compilation were used as basis.

· Personal protective equipment
· General protective and hygienic measures
The usual precautionary measures should be adhered to in handling the chemicals.
· Breathing equipment: Not required.
· Protection of hands: Not required.
· Eye protection: Safety glasses recommended during refilling.

9 Physical and chemical properties:

· Form: Fluid
· Colour: Light brown
· Smell: Nearly odourless

	Value/Range	Unit	Method
· Change in condition			
· Melting point/Melting range:	Not determined		
· Boiling point/Boiling range:	Not determined		
· Flash point:	Not applicable		
· Self-inflammability:	Product is not selfigniting.		
· Danger of explosion:	Product is not explosive.		

(Contd. on page 3)

Material Safety Data Sheet
According to 91/155 EC

Printing date 01.07.94 Reviewed on 30.06.94

Trade name PERFECTOL UKB

(Contd. of page 2)

- Density Not determined
- Solubility in / Miscibility with Water: Fully miscible
- pH-value: (100 g/l) at 20 ° C 7,0-8,0

10 Stability and reactivity

- Conditions to be avoided:
  No decomposition if used according to specifications.
- Dangerous reactions No dangerous reactions known
- Dangerous products of decomposition: None

11 Toxicological information

- Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritant effect.
- Sensitization: No sensitizing effect known.
- Additional toxicological information:
  The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information:

- General notes: Not known to be hazardous to water.

13 Disposal considerations

- Product:
- Recommendation
  Must be specially treated under adherence to official regulations.

- Uncleaned packagings:
- Recommendation:
  Disposal must be made according to official regulations.

14 Transport information

- Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)
- Number/Letter: -

- Maritime transport IMDG/GGVSea:
- IMDG/GGVSea Class: -

- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: -

15 Regulatory information

- Designation according to EC guidelines:
  The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.
  The product is not subject to identification regulations under EC

(Contd. on page 4)

Material Safety Data Sheet
According to 91/155 EC

Printing date 01.07.94 Reviewed on 30.06.94

Trade name PERFECTOL UKB

(Contd. of page 3)

Directives and the Ordinance on Hazardous Materials (GefStoffV).
Observe the normal safety regulations when handling chemicals

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing data specification sheet:
Environment protection department.

SN - 7/94

New
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MATERIAL SAFETY DATA SHEET

MSDS No. 01595000
ENGLISH

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: PERMAGEAR® EP 150 LUBRICANT

MANUFACTURER/SUPPLIER:
Amoco Oil Company
200 East Randolph Drive
Chicago, Illinois 60601 U.S.A.

EMERGENCY HEALTH INFORMATION:
1 (800) 447-8735
EMERGENCY SPILL INFORMATION:
1 (800) 424-9300 CHEMTREC (USA)
OTHER PRODUCT SAFETY INFORMATION:
(312) 856-3907

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	Range % by Wt.
Hydrotreated heavy paraffinic distillate	64742-54-7	40-70
Solvent-refined heavy paraffinic distillate	64741-88-4	15-40

(See Section 8.0, "Exposure Controls/Personal Protection", for exposure guidelines)

3.0 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Warning! Causes eye and skin irritation.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Causes eye irritation.

SKIN CONTACT: Causes skin irritation.

INHALATION: No significant health hazards identified.

INGESTION: No significant health hazards identified.

HMIS CODE: (Health:2) (Flammability:1) (Reactivity:0)

NFPA CODE: (Health:2) (Flammability:1) (Reactivity:0)

4.0 FIRST AID MEASURES

EYE: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

SKIN: Wash exposed skin with soap and water. Remove contaminated clothing and thoroughly clean and dry before reuse. Get medical attention if irritation develops.

INHALATION: If adverse effects occur, remove to uncontaminated area. Get medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

Issued: June 27, 1994

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: 441°F(227°C) (minimum) (Cleveland open cup)

UEL: Not determined.

LEL: Not determined.

AUTOIGNITION TEMPERATURE: Not determined.

FLAMMABILITY CLASSIFICATION: Not Flammable.

EXTINGUISHING MEDIA: Agents approved for Class B hazards (e.g., dry chemical, carbon dioxide, foam, steam) or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None identified.

FIRE-FIGHTING EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: Incomplete burning can produce carbon monoxide and/or carbon dioxide and other harmful products.

6.0 ACCIDENTAL RELEASE MEASURES

Remove mechanically or contain on an absorbent material such as dry sand or earth. Keep out of sewers and waterways.

7.0 HANDLING AND STORAGE

HANDLING: No special requirements.

STORAGE: No special requirements.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: Do not get in eyes. Wear chemical goggles.

SKIN: Do not get on skin or clothing. Wear protective clothing and gloves.

INHALATION: None required; however, use of adequate ventilation is good industrial practice.

ENGINEERING CONTROLS: Control airborne concentrations below the exposure guidelines.

EXPOSURE GUIDELINES:

Component	CAS#	Exposure Limits
Hydrotreated heavy paraffinic distillate	64742-54-7	OSHA PEL: 5 mg/m^3 (oil mist) (1989)(1971) ACGIH TLV-TWA: 5 mg/m^3 (oil mist) ACGIH TLV-STEL: 10 mg/m^3 (oil mist)

EXPOSURE GUIDELINES:

Solvent-refined heavy paraffinic distillate	64741-88-4	OSHA PEL: 5 mg/m^3 (oil mist) (1989)(1971) ACGIH TLV-TWA: 5 mg/m^3 (oil mist) ACGIH TLV-STEL: 10 mg/m^3 (oil mist)

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR:	Oily liquid. Yellow.
pH:	Not determined.
VAPOR PRESSURE:	Not determined.
VAPOR DENSITY:	Not determined.
BOILING POINT:	Not determined.
MELTING POINT:	Not determined.
SOLUBILITY IN WATER:	Negligible, below 0.1%.
SPECIFIC GRAVITY (WATER = 1):	0.89
VISCOSITY:	142.5-157.5cSt at 40°C
VISCOSITY INDEX:	90 Minimum.

10.0 STABILITY AND REACTIVITY

STABILITY: Stable..

CONDITIONS TO AVOID: None identified.

MATERIALS TO AVOID: Avoid chlorine, fluorine, and other strong oxidizers.

HAZARDOUS DECOMPOSITION: None identified.

HAZARDOUS POLYMERIZATION: Will not occur.

11.0 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:

EYE IRRITATION: Testing not conducted. See Other Toxicity Data.

SKIN IRRITATION: Testing not conducted. See Other Toxicity Data.

DERMAL LD50: Testing not conducted. See Other Toxicity Data.

ORAL LD50: Testing not conducted. See Other Toxicity Data.

INHALATION LC50: Testing not conducted. See Other Toxicity Data.

OTHER TOXICITY DATA:

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the U.S. Occupational Safety and Health Act, or the International Agency on Research on Cancer (IARC).

12.0 ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13.0 DISPOSAL INFORMATION

Disposal must be in accordance with applicable federal, state, or local regulations. Enclosed-controlled incineration is recommended unless directed otherwise by applicable ordinances.

14.0 TRANSPORTATION INFORMATION

U.S. DEPT OF TRANSPORTATION

Shipping Name : Not Regulated

INTERNATIONAL INFORMATION:

Sea (IMO/IMDG)

Shipping Name : Not determined.

Air (ICAO/IATA)

Shipping Name : Not determined.

European Road/Rail (ADR/RID)

Shipping Name : Not determined.

Canadian Transportation of Dangerous Goods

Shipping Name : Not determined.

15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102A/103 HAZARDOUS SUBSTANCES (40 CFR PART 302.4): This product is not reportable under 40 CFR Part 302.4.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR PART 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 CFR PART 370): This product is defined as hazardous by OSHA under 29 CFR Part 1910.1200(d). Hazardous categories for this product are: Acute = yes; Chronic = no; Fire = no; Pressure = no; Reactive = no.

SARA TITLE III SECTION 313 (40 CFR PART 372): This product is not regulated under Section 313 of SARA and 40 CFR Part 372.

U.S. INVENTORY (TSCA): Listed on inventory.

This product contains n-methyl pyrrolidone (CAS 872-50-4) which is currently undergoing review and testing under TSCA Section 4. Notification to the U.S. EPA Office of Toxic Substances is required prior to export of this material from the United States.

OSHA HAZARD COMMUNICATION STANDARD: Irritant. Contains a component listed by OSHA. Contains a component listed by ACGIH.

EC INVENTORY (EINECS/ELINCS): Not determined.

JAPAN INVENTORY (MITI): Not determined.

AUSTRALIA INVENTORY (AICS): Not determined.

KOREA INVENTORY (ECL): Not determined.

CANADA INVENTORY (DSL): Not determined.

PHILIPPINE INVENTORY (PICCS): Not determined.

FOOD CONTACT STATUS

USDA: H2 Status: This product is acceptable to the USDA for use as a lubricant in official meat and poultry establishments provided there is no possibility of the lubricant or lubricated part contacting edible products.

16.0 OTHER INFORMATION

BY:

Donald M. Barker, Director
Product Stewardship & Toxicology

Issued: June 27, 1994
Supersedes: November 30, 1992

This material Safety Data Sheet conforms to the requirements of ANSI Z400.1.

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.

MATERIAL SAFETY DATA SHEET

MGK®

Date-Issued: 11/16/2005
MSDS Ref. No: Permethrin Pro
Date-Revised: 11/16/2005
Revision No: New MSDS

Permethrin Pro

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Permethrin Pro
PRODUCT DESCRIPTION: A Low-Odor Pyrethroid Insecticide Formulation.
PRODUCT CODE: EPA REG. NO. : 1021-1836 (Old EPA #51036-287)

MANUFACTURER

McLaughlin Gormley King Company
8810 10th Avenue North
Minneapolis, MN 55427
Product Stewardship: (763) 544-0341
Customer Service: (800) 645-6466

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC U.S. and CANADA: (800) 424-9300
CHEMTREC All Other Areas: (703) 527-3887
Emergency Phone: (888) 740-8712

COMMENTS: MGK® Hours of operation are 8:00 am to 4:30 pm CST, 14:00 to 22:30 GMT.

For information regarding MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day at 1-888-740-8712.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS#	EINECS#
Permethrin	36.8	052645-53-1	258-067-9
1-Methyl-2-Pyrrolidone	13.5	000872-50-4	212-828-1

COMMENTS: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: CAUTION. OSHA-COMBUSTIBLE LIQUID. Do not use or store near heat, sparks, open flame, or any other ignition sources. Harmful if swallowed, inhaled, or absorbed through the skin. Contains petroleum distillates - Vomiting may cause aspiration pneumonia.
Avoid contact with skin, eyes, and clothing. Avoid breathing dusts, vapors, or spray mists of this product.

Wear OSHA-approved safety glasses, safety goggles, or a full face-shield.
Wear chemical-resistant gloves such as Barrier Laminate, Neoprene Rubber, Nitrile, or Viton.
Wear a long-sleeved shirt and long pants, shoes and socks.

Wear a NIOSH/ MSHA-approved respirator. See Section 7 (Handling) or Section 8 (Personal Protective Equipment) for detailed respirator specifications.

POTENTIAL HEALTH EFFECTS

EYES: May cause eye irritation.

SKIN: Can cause skin irritation. Can cause a burning or prickling sensation on more sensitive areas (face, eyes, mouth).

SKIN ABSORPTION: Harmful if absorbed through the skin.

INGESTION: Harmful if swallowed. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe lung injury.

INHALATION: Harmful if inhaled.

CHRONIC: None known.

COMMENTS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. FIRST AID MEASURES

EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION: If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give **any** liquid to the person. Do not induce vomiting unless told to do so by a poison contol center or a doctor. Never give anything by mouth to an unconscious person.

INHALATION: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN: Contains Pyrethroids and Petroleum Distillates; vomiting may pose an aspiration pneumonia hazard.
For skin effects, a highly efficient therapeutic agent for pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

ADDITIONAL INFORMATION: For 1-Methyl-2-Pyrrolidone (NMP):

Contact with the liquid can result in irritation. Skin contact should be avoided. Prolonged skin contact may result in redness and dermatitis. NMP is moderately toxic by all routes of exposure; however, due to its low vapor pressure, dermal exposure represents the primary hazard in most settings. Contact with the liquid results in moderate eye irritation and may cause temporary corneal clouding. Skin contact results in mild irritation; prolonged skin contact may cause redness and dermatitis. Inhalation of the vapors of NMP may result in respiratory irritation. Accidental ingestion of the liquid causes gastric disturbances and may result in nausea and vomiting.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 62.2°C (144°F)TAG Closed Cup

FLAMMABLE CLASS: OSHA-COMBUSTIBLE LIQUID

EXTINGUISHING MEDIA: Foam, carbon dioxide or dry chemical.

HAZARDOUS COMBUSTION PRODUCTS: Under fire conditions this product will support combustion and may decompose to give off toxic gases such as Carbon Monoxide, Carbon Dioxide, and nitrogen oxides. Chlorine gas and Hydrogen Chloride may also be formed under fire conditions.

FIRE FIGHTING PROCEDURES: Treat as an oil fire. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Shut off ignition sources. Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors. Absorb with appropriate absorbent. Clean spill area of residues and absorbent.

LARGE SPILL: Shut off ignition sources. Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors. Collect product into drums, etc. via drains, pumps, etc. Absorb

with appropriate absorbent. Clean spill area of residues and absorbent.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Contains pyrethroids which are toxic to fish and other aquatic invertebrates. Contaminated absorbent and wash water should be disposed of according to local, state/provincial and federal/national regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Do not use or store near heat, sparks, open flame, or any other ignition sources.

HANDLING: Wear OSHA-approved safety glasses, safety goggles, or a full face-shield.
Wear chemical-resistant gloves such as Barrier Laminate, Neoprene Rubber, Nitrile, or Viton. Wear a long-sleeved shirt and long pants, shoes and socks.

Wear a MSHA/ NIOSH air purifying respirator with approval number prefixes such as: dust/ mist filtering respirator TC-21C or a NIOSH-approved respirator with any R, P, or HE filter; or a respirator with an organic-vapor removing cartridge and a prefilter approved for pesticides with MSHA/ NIOSH approval number prefix TC-14G; or supplied air respirator with MSHA/ NIOSH approval number prefix TC-19G or self-contained breathing apparatus (SCBA) with MSHA/ NIOSH approval number TC-13F.

Mechanical ventilation should be used when handling this product in enclosed spaces. Avoid breathing vapors or spray mists of this product. Do not contaminate water, food or feedstuffs, by storage, handling, or by disposal. Read and observe all precautions and instructions on the label.

STORAGE: Store in a cool, dry place. Keep container closed. Do not use or store near heat, open flame, ignition sources, or near strong acids, bases, and oxidizers. Emptied containers may retain product residues.

KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

Chemical Name		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
		ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
Permethrin	TWA	None		None			10
1-Methyl-2-Pyrrolidone	TWA					100	

ENGINEERING CONTROLS: Mechanical ventilation should be used when handling this product in enclosed spaces. Local exhaust ventilation may be necessary.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear OSHA-approved safety glasses with side-shields, safety goggles, or a full-face shield.

SKIN: Wear chemical-resistant gloves such as Barrier Laminate, Neoprene Rubber, Nitrile Rubber or Viton, and wear protective clothing.

RESPIRATORY: Wear a MSHA/ NIOSH air purifying respirator with approval number prefixes such as: dust/ mist filtering respirator TC-21C or a NIOSH-approved respirator with any R, P, or HE filter; or a respirator with an organic-vapor removing cartridge and a prefilter approved for pesticides with MSHA/ NIOSH approval number prefix TC-14G; or supplied air respirator with MSHA/ NIOSH approval number prefix TC-19G or self-contained breathing apparatus (SCBA) with MSHA/ NIOSH approval number TC-13F.

WORK HYGIENIC PRACTICES: DO NOT SMOKE, EAT, OR DRINK, OR APPLY COSMETICS IN WORK AREA!
Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking, or using the toilet.

OTHER USE PRECAUTIONS: AGRICULTURAL USE REQUIREMENTS:

Use this product only in accordance with its labeling and with the Woker Protection Standard, 40 CFR, Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment (PPE). The requirements listed below only apply to uses of this product that are covered by the Worker Protection Standard. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
Coveralls over a long-sleeved shirt and long pants;
Chemical-resistant gloves, such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton;
Shoes plus socks.

COMMENTS: NON-AGRICULTURAL USE REQUIREMENTS:

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to treat agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
ODOR: Solvent odor.
APPEARANCE: Amber liquid.
pH: 4.7@ 1.0% in Water.
VAPOR PRESSURE: Not Available
VAPOR DENSITY: Heavier than air.
BOILING POINT: Not Available
FREEZING POINT: Not Available
MELTING POINT: Not Available
SOLUBILITY IN WATER: Emulsifiable in water.
SPECIFIC GRAVITY: 1.1 g/mL at 20°C (68°F)
(VOC): <6 %

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

CONDITIONS TO AVOID: Not compatible with strong acids or bases. Not compatible with strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: May decompose under fire or extreme temperatures to give off toxic Chlorine gas, Hydrogen Chloride, as well as Carbon Monoxide, Carbon Dioxide, and Nitrogen Oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD_{50}: >2000 mg/kg
Albino rabbit.

ORAL LD_{50}: 998 mg/kg

Albino rat.

INHALATION LC_{50}: >4.3 mg / L
Rats exposed for 4 hours to test atmosphere.

EYE EFFECTS: Mildly Irritating to albino rabbit eyes.

SKIN EFFECTS: Moderately irritating (rabbit).

SENSITIZATION: Negative; Not considered to be a dermal sensitizer to albino guinea pigs.

COMMENTS: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as being carcinogens.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Environmental data not available for this product.

ECOTOXICOLOGICAL INFORMATION: This product is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply this product or allow it to drift to crops or weeds on which bees are actively foraging. Additional information may be obtained from your local Cooperative Extension Service.

This product is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters. Do not apply when weather conditions favor drift from treated areas.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

EMPTY CONTAINER: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

RCRA/EPA WASTE INFORMATION: None of the ingredients in this product appear on the RCRA lists (40 CFR 261.24, 40CFR 251.33) or CERCLA Hazardous Substance list (40 CFR Part 302 Table 302.4)

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.
PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous
OTHER SHIPPING INFORMATION: This material is not regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (i.e., less than 119 Gallon's / 450 Liter's).

When shipping in Bulk-quantities (i.e., more than 119 Gallon's / 450 Liter's), please contact MGK® for the proper shipping description.

AIR (ICAO/IATA)
PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.
PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

VESSEL (IMO/IMDG)
PROPER SHIPPING NAME: Not Available

15. REGULATORY INFORMATION

UNITED STATES
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES:

FIRE: YES **PRESSURE GENERATING:** NO **REACTIVITY:** NO **ACUTE:** YES

313 REPORTABLE INGREDIENTS:

COMPONENT, CAS#, Max %

Permethrin, 052645-53-1, 36.8

1-Methyl-2-Pyrrolidone, 000872-50-4, 13.5

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: There are no SARA Title III Section 302 extremely hazardous substances present in this formulation (40 CFR 355).

There are no components that are subject to emergency requirements under CERCLA Section 103(a)(40 CFR 302.4) in this formulation.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All chemical substances found in this product comply with the Toxic Substances Control Act's inventory reporting requirements.

16. OTHER INFORMATION

REVISION SUMMARY New MSDS

HMIS RATING

HEALTH:	2
FLAMMABILITY:	2
PHYSICAL HAZARD:	1
PERSONAL PROTECTION:	

HMIS RATINGS NOTES: We assign HMIS ratings to this product based on the hazards of its ingredients(s). Since the customer is most aware of the applications and conditions of use, he or she must ensure that the proper Personal Protective Equipment is provided, consistent with the information contained in Section's 7 and 8 of this MSDS.

COMMENTS: The data contained herein are based on information currently available to McLaughlin Gormley King Company and, to the best of our knowledge, are accurate and based on sound expert opinion. Our statements herein, however, are not to be taken as a warranty or representation for which McLaughlin Gormley King Company assumes legal responsibility.

MSDS Prepared by T. Azzivitto

FEB 23 1999

HODGSON
Process Chemicals Inc., Leather

Material Safety Data Sheet
PERMOL C-40

SECTION 1- Chemical Product and Company Identification

Spray finish

Product/Chemical Name: PERMOL C-40
Common Name: Leather Lubricant/Cationic Wax Emulsion

Chemical Formula: N/A MIXTURE
CAS Number: N/A MIXTURE

MANUFACTURER:

HODGSON PROCESS CHEMICALS, INC.
7760 S. 6TH ST.
OAK CREEK, WI 53154
Phone: 414-764-3200 Fax: 414-764-3408

HAZARD RATINGS

HEALTH:	2
FLAMMABILITY:	1
REACTIVITY:	0

Technical Contact Person: Volker Lorenz

EMERGENCY PHONE #: CHEMTREC @ 800-424-9300

SECTION 2 Composition / Information on Ingredients

Material	CAS Number	Content	Hazard
Cationic Surfactant	Proprietary	< 8	PEL: N.E. TLV: N.E.

N.E. = Not Established

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SECTION 3 - Hazards Identification

Potential Health Effects

OVEREXPOSURE EFFECTS

Inhalation:

Temporary irritation of nose and throat may occur

Eye:

Temporary irritation or redness may occur.

Skin:

Temporary irritation of the skin may occur in some individuals.

Ingestion:

This product is not intended to be ingested or eaten under normal conditions of use. If ingested it may cause nausea and systemic poisoning.

ACUTE EFFECTS:

Product may cause skin, eye, and nose or throat irritation in some individuals.

CHRONIC EFFECTS:

None identified

SECTION 4 - First Aid Measures

Eye and Skin Contact:

Remove contaminated clothing. Wash exposed skin with soap and cold water. Flush eyes with cool water for 15 minutes, seek medical attention if irritation persists.

Inhalation:

Remove to fresh air. If symptoms persist contact a physician.

Ingestion:

This product is not intended to be ingested or eaten. If product is ingested, do not induce vomiting. Drink plenty of water. Contact a physician immediately.

SECTION 5 - Fire Fighting Measures

Flammable Properties

Flash Point: > 200°F(93°C)
Method: TCC
Flammable Limits: Not Available

Explosive Limits

LEL: Not Available
UEL: Not Available
Autoignition Temperature: Not Available

Unusual Fire/Explosion Hazards:
No special procedures are expected to be necessary for this product. Normal fire-fighting procedures should be followed to avoid inhalation of smoke and gases.

SECTION 6 - Accidental Release Measures

Containment Procedures:
Dam, mop, absorb onto sawdust, and place in suitable container. Do not allow material to contaminate sewers, or other water sources.

Disposal:
Dispose of spilled material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 7 - Handling and Storage

Storage Handling:
Use protective equipment as described in section 8 of this material safety data sheet when handling uncontained material.

Storage to Avoid:
Product may congeal or stratify if cold. Warm to room temperature and mix well before using.

SECTION 8 - Exposure Controls / Personal Protection

Eye:
Safety glasses with sideshields, chemical goggles, or face mask recommended.

Skin:
Any chemical impervious glove may be used to protect skin.

Respiratory:
Respiratory protection is not required if mechanical or dilution ventilation is sufficient to keep exposure levels below the applicable limits, if any, outlined in Section 2.

Ventilation:
Local exhaust ventilation should be provided to keep exposure levels to below the applicable exposure limits.

Other:
An apron or coveralls impervious to chemicals may be used to protect clothing. Wash exposed skin after contact.

SECTION 9 - Physical and Chemical Properties

Boiling Point (°F / °C) :	300°F	**Density :**	7.5 lb/gal
Flash Point :	> 200°F(93°C)	**Evaporation Rate :**	Not Available
Specific Gravity : (Water=1)	0.90 g/cc	**% Volatiles : (by Weight)**	Not applicable
pH :	Not Available	**Vapor Pressure :**	Not Available
Solubility in Water :	Dispersible	**Viscosity :**	Not Available

Appearance and Odor :
Milky liquid with slight odor.

SECTION 10 - Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.

Incompatible Materials :
Strong acids and oxidizers.

Hazardous Decomposition Products :
None known.

SECTION 11 - Toxicological Information

ACUTE EFFECTS:
No testing conducted

CHRONIC EFFECTS:

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients, and those hazards must be assumed to be additive in the absence of complete information.

SECTION 12 - Ecological Information

Ecotoxicity:
Product has not been tested for ecotoxicity.

SECTION 13 - Disposal Considerations

Disposal Summary:
Dispose of waste material in approved landfill or incinerate in compliance with federal, state, and local regulations. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

SECTION 14 - Transport Information

U.S. Department of Transportation:
Hazard Class: Non Regulated
Shipping Name:
Harmonized Tariff Code: 3403.91.50 00

HODGSON
Process Chemicals Inc., Leather

PERMOL C-40

SECTION 15 – REGULATORY INFORMATION

Federal Regulations :

This product has not been classified as a carcinogen by the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA), or the National Toxicology Program (NTP).

State Regulations :

n/a

Other Regulatory Information:

Component	CAS #	%	SARA 313	SARA 302 TPQ (lbs)	CERCLA	CERCLA RQ (lbs)
N/A						

International Regulations :

TSCA : Components of this product are found in the Toxic Substance Control Act (TSCA) inventory.

SECTION 16 – Other Information

THE INFORMATION SUPPLIED HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HODGSON PROCESS CHEMICALS, INC. CONSIDERS TO BE ACCURATE. NO WARRANTY, EXPRESS OR IMPLIED, IS INTENDED. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.

MSDS Revision Summary:

Date	Reason
04/03/98	Updated form.
02/19/99	Product name change

Prepared by: Sharon Mathis

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