TANK TONIC

CUSTOMER: 334286
BATCH #: 112570022
ZONE #:200
BA[illegible]E #:1Z9594500300985076
PR[illegible]CT NAME: TANK TONIC

ORDER #: 462855
STICKER #: 112570297

Material Safety Data Sheet: TANK TONIC

Supercedes Date 06/10/2011 **Issuing Date** 07/12/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name TANK TONIC
Recommended use Biocidal product
Information on Manufacturer
CERTIFIED LABS, DIV. OF NCH CORP.
BOX 152170
IRVING, TEXAS 75015

Product Code 399J
Chemical nature Organic materials
Emergency Telephone Number
CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview
DANGER
Combustible liquid and vapor
Corrosive
Causes skin and eye burns
Harmful if absorbed through skin
May cause allergic skin reaction
May cause delayed lung injury and burns
Harmful or fatal if swallowed

Color Yellow - brown **Physical State** Liquid **Odor** Amines

Potential Health Effects

Principle Route of Exposure	Skin contact, Eye contact, Inhalation.
Primary Routes of Entry	Skin Absorption, Inhalation.
Acute Effects	
Eyes	Corrosive to the eyes and may cause severe damage including blindness.
Skin	Causes burns. May be absorbed through the skin in harmful amounts. May cause allergic skin reaction.
Inhalation	Harmful by inhalation. Causes burns. Inhalation may be fatal or cause delayed lung injury. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Ingestion	Ingestion causes burns of the upper digestive and respiratory tracts. Aspiration hazard if swallowed - can enter lungs and cause damage.
Chronic Toxicity	Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Inhaled corrosive substances can lead to a toxic edema of the lungs. May cause sensitization by skin contact. Liver and kidney injuries may occur.
Target Organ Effects	Eyes, Liver, Kidney, Respiratory system, Skin, Central nervous system.
Aggravated Medical Conditions	Respiratory disorders, Skin disorders, Liver disorders, Kidney disorders, Neurological disorders.
Potential Environmental Effects	See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
4-(2-Nitrobutyl)morpholine	2224-44-4
Methylene dimorpholine	5625-90-1
Morpholine	110-91-8
4,4'-(2-Ethyl-2-nitropropane-1,3-diyl)bismorpholine	1854-23-5
1-Nitropropane	108-03-2

4. FIRST AID MEASURES

General Advice	Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.
Skin Contact	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
Inhalation	Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention if symptoms occur.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Notes to physician	The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

5. FIRE-FIGHTING MEASURES

Flash Point 160 °F / 71 °C **Method** Pensky Marten Closed Tester
Autoignition Temperature No information available.
Flammability Limits in Air % Mixture. **Upper** 11.2 **Lower** 1.4
Suitable Extinguishing Media
Water spray. Dry chemical. Carbon dioxide (CO_2). Alcohol-resistant foam.

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
4-(2-Nitrobutyl)morpholine	no data available	no data available	no data available	no data available	no data available
Methylene dimorpholine	no data available	no data available	no data available	no data available	no data available
Morpholine	1050 mg/kg (Rat)	310 mg/kg (Rabbit)	no data available	no data available	no data available
4,4'-(2-Ethyl-2-nitropropane-1,3-diyl) bismorpholine	no data available	no data available	no data available	no data available	no data available
1-Nitropropane	455 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	11.02 mg/L (Rat) 1 h	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
4-(2-Nitrobutyl)morpholine	no data available	no data available	no data available	no data available	no data available
Methylene dimorpholine	no data available	no data available	no data available	no data available	no data available
Morpholine	no data available	no data available	no data available	no data available	eyes, kidneys, liver, respiratory system, skin, CNS
4,4'-(2-Ethyl-2-nitropropane-1,3-diyl) bismorpholine	no data available	no data available	no data available	no data available	no data available
1-Nitropropane	no data available	no data available	no data available	no data available	CNS,eyes,liver,kidneys

Carcinogenicity There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
4-(2-Nitrobutyl)morpholine	not applicable	not applicable	not applicable	not applicable	not applicable
Methylene dimorpholine	not applicable	not applicable	not applicable	not applicable	not applicable
Morpholine	not applicable	not applicable	not applicable	not applicable	not applicable
4,4'-(2-Ethyl-2-nitropropane-1,3-diyl) bismorpholine	not applicable	not applicable	not applicable	not applicable	not applicable
1-Nitropropane	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information

Toxicity to algae	Toxicity to fish	Daphnia magna (Water flea)
EC50 0.35 mg/L 96 h	LC50 2.3 mg/L 96h	EC50 3.23 mg/L 72 h

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
4-(2-Nitrobutyl)morpholine	no data available	no data available	no data available	no data available	N/A
Methylene dimorpholine	no data available	no data available	no data available	no data available	N/A
Morpholine	EC50 28 mg/L Pseudokirchneriella subcapitata 96 h	LC50 350 mg/L Lepomis macrochirus 96 h LC50 375-460 mg/L Oncorhynchus mykiss 96 h LC50 > 1000 mg/L Brachydanio rerio 96 h	EC50 = 57.0 mg/L 30 min	EC50 100 mg/L 24 h	-2.55
4,4'-(2-nitropropane-1,3-diyl)bismorpholine	no data available	no data available	no data available	no data available	N/A
1-Nitropropane	EC50 98 mg/L Desmodesmus subspicatus 72 h	LC50 205 mg/L Brachydanio rerio 48 h	EC50 = 42.8 mg/L 5 min EC50 = 45.4 mg/L 15 min EC50 = 50.8 mg/L 30 min	EC50 258 mg/L 24 h	0.851

Persistence and Degradability Readily biodegradable.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Disinfectants, liquid, toxic, n.o.s.
Hazard Class 6.1
UN-No UN3142
Packing Group III
Description Disinfectants, liquid, toxic, n.o.s.(4-(2-Nitrobutyl)-Morpholine),6.1,UN3142,PG III

TDG

Proper shipping name Disinfectant, liquid, toxic, n.o.s.
Hazard Class 6.1
UN-No UN3142
Packing Group III
Description DISINFECTANT, LIQUID, TOXIC, N.O.S.(4-(2-Nitrobutyl)-Morpholine),6.1,UN3142,PG III

CAO

UN-No UN3142
Proper Shipping Name Disinfectant, liquid, toxic, n.o.s.*
Hazard Class 6.1
Packing Group III
Shipping Description Disinfectant, liquid, toxic, n.o.s.*(4-(2-Nitrobutyl)-Morpholine),6.1,UN3142,PG III

IATA

UN-No UN3142
Proper Shipping Name Disinfectant, liquid, toxic, n.o.s.*
Hazard Class 6.1

MATERIAL SAFETY DATA SHEET

Tile Lab Surfacegard Penetrating Sealer

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Tile Lab Surfacegard Penetrating Sealer

Product Use: Sealer.

Manufacturer/Supplier: Custom Building Products
13001 Seal Beach Blvd
Seal Beach, CA 90740

Phone Number: (562) 598-8808

Emergency Phone: INFOTRAC 1-800-535-5053 (US and Canada)
INTERNATIONAL + 1-352-323-3500

Date of Preparation: December 31, 2008 **Revision Date:** September 11, 2012

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION

MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.

Potential Health Effects: See Section 11 for more information.

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation.

Signs and Symptoms: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Symptoms may include redness, drying, and cracking of the skin.

Medical Conditions Aggravated By Exposure: Asthma. Allergies.

Target Organs: Skin, eyes, gastrointestinal tract, respiratory system.

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Environmental Effects: May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Wt. %
Diethylene glycol monobutyl ether	112-34-5	1 – 5

Section 4: FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn.

Skin Contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).

Note to Physicians: Symptoms may not appear immediately.

Section 5: FIRE FIGHTING MEASURES

Flammability: Not flammable by WHMIS/OSHA criteria.

Means of Extinction:

Suitable Extinguishing Media: Treat for surrounding material.

Unsuitable Extinguishing Media: Not available.

Products of Combustion: May include, and are not limited to: oxides of carbon and hydrogen fluoride.

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

Protection of Firefighters: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental Precautions: Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

Methods for Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Clean-Up: Soak into absorbent material. Spills of this material are a slipping hazard. Thoroughly wash the area with water after a spill or leak. Allow gas to dissipate harmlessly into the atmosphere.

Other Information: Not available.

Section 7: HANDLING AND STORAGE

Handling:
Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking.

Storage:
Keep out of the reach of children. Keep container tightly closed. Store in a cool place. Keep away from food, drink and animal feedingstuffs.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Ingredient	Exposure Limits OSHA-PEL	ACGIH-TLV
Diethylene glycol monobutyl ether	Not available.	Not available.

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Personal Protective Equipment:

Eye/Face Protection: Wear eye/face protection.

Hand Protection: Wear suitable gloves.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to slightly cloudy.
Color:	Colorless.
Odor:	Low odor.
Odor Threshold:	Not available.
Physical State:	Liquid.
pH:	7.0-8.0
Viscosity:	Water thin.
Freezing Point:	~ 0 °C (~ 32 °F).
Boiling Point:	~ 100°C (~ 212°F).
Flash Point:	Not available.
Evaporation Rate:	Not available.
Lower Flammability Limit:	Not available.
Upper Flammability Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Relative Density:	~ 1 g/mL.
Solubility in Water:	Miscible.
Coefficient of Water/Oil Distribution:	Not available.
Auto-ignition Temperature:	Not available.
Percent Volatile, wt. %:	~ 95%
VOC content:	36 g/L.

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal storage conditions.

Conditions of Reactivity: Heat. Incompatible materials.

Incompatible Materials: None known.

Hazardous Decomposition Products: May include, and are not limited to: oxides of carbon and hydrogen fluoride.

Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.

Section 11: TOXICOLOGY INFORMATION

EFFECTS OF ACUTE EXPOSURE

Component Analysis

Ingredient	LD_{50} (oral)	LC_{50}
Diethylene glycol monobutyl ether	3384 mg/kg, rat	Not available.

Eye: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: May cause skin irritation. Symptoms may include redness, drying, and cracking of the skin.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.

EFFECTS OF CHRONIC EXPOSURE

Target Organs: Not available.

Chronic Effects: Not hazardous by WHMIS/OSHA criteria.

Carcinogenicity: Not hazardous by WHMIS/OSHA criteria.

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen *
Diethylene glycol monobutyl ether	Not listed.

* See Section 15 for more information.

Mutagenicity: Not hazardous by WHMIS/OSHA criteria.

Reproductive Effects: Not hazardous by WHMIS/OSHA criteria.

Developmental Effects:

Teratogenicity: Not hazardous by WHMIS/OSHA criteria.

Embryotoxicity: Not hazardous by WHMIS/OSHA criteria.

Respiratory Sensitization: Not hazardous by WHMIS/OSHA criteria.

Skin Sensitization: Not hazardous by WHMIS/OSHA criteria.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: May cause long-term adverse effects in the aquatic environment.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions:
This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Section 14: TRANSPORTATION INFORMATION

DOT Ground Classification
Not regulated

TDG Ground Classification
Not regulated

IATA Classification
Not regulated

IMDG Classification
Not regulated

Section 15: REGULATORY INFORMATION

Federal Regulations

Canadian: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

US: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200).

SARA Title III

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Diethylene glycol monobutyl ether	Not listed.	Not listed.	Not listed.	Not listed.

State Regulations

California Proposition 65:
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Global Inventories

Ingredient	Canada DSL/NDSL	USA TSCA
Diethylene glycol monobutyl ether	DSL	Yes.

All ingredients are on DSL/NDSL and TSCA inventories or are exempt from listing.

HMIS - Hazardous Materials Identification System

Health - 1 **Flammability** - 0 **Physical Hazard** - 0 **PPE** – B

NFPA - National Fire Protection Association:

Health - 1 **Fire** - 0 **Reactivity** - 0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

WHMIS Classification(s):
Class D2B - Eye Irritant

WHMIS Hazard Symbols:

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.
A1 - Confirmed human carcinogen.
A2 - Suspected human carcinogen.
A3 - Animal carcinogen.
A4 - Not classifiable as a human carcinogen.
A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.
1 - The agent (mixture) is carcinogenic to humans.
2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.
1 - Known to be carcinogens.
2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Disclaimer:
The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

Expiry Date: September 11, 2015

Version #: 2.1

Prepared by: Nexreg Compliance Inc.
Phone: (519) 488-5126
www.nexreg.com

ITEM: 5PA58 - Toilet Bowl Gasket

MSDS C7857 DELIVERY: **6240072301** HU NUMBER: U234099560

MATERIAL SAFTETY DATA SHEET (MSDS)

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - C7857

As[illegible]d Grainger Items
5P[illegible]

TUESDAY, DECEMBER 01, 2009

MSDS

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: NO-SEEP(R*) WAX GASKET

MSDS NO.: 001115

PART NUMBERS COVERED:
001001
001002
001003
001004-24
001005-24
001005-24D
001005-SP
001006
001007
001008
001009
001010
001010-24
001011
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001025-N
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001109-N
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004300-SP
004301-24D
004301-SP
004302
004303-SP
004304-24D
004305-24
004305-24D
004305-SP
004306
004308
004309
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004310-24
004311
004312
004318
004320
004340
004345
004350
004355
004355-SP
004360
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004516-SP
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006260

-----1. BASIC INFORMATION ------

MANUFACTURER: WILLIAM H. HARVEY COMPANY
ADDRESS: 4334 SOUTH 67TH STREET
CITY, ST ZIP: OMAHA, NE 68117-1019

EMERGENCY CONTACT: CHEMTREC (TRANSPORTATION EMERGENCY ONLY)
EMERGENCY TELEPHONE NUMBER: (800)424-9300

CONTACT: INFORMATION TELEPHONE NUMBER

INFORMATION TELEPHONE NUMBER: (800)228-9681

LAST UPDATE: 12/01/2009

EXPIRATION DATE:

CHEMICAL STATE:
() LIQUID
() GAS
(X) SOLID

CHEMICAL TYPE:
() PURE
(X) MIXTURE

NF[illegible]
HEA[illegible] 0
FIRE 1
REACTIVITY 0
SPECIAL

HEALTH 0
FLAMMABILITY 1
REACTIVITY 0
PERS. PROTECTION A

-----2. INGREDIENTS ------

() TRADE SECRET

CAS NO.	CHEMICAL NAME	% RANGE	EHS	NTP	IARC
NA	THIS PRODUCT IS DEFINED AS AN "ARTICLE" AND IS NOT CLASSIFIED AS HAZARDOUS IN ACCORDANCE WITH OSHA CFR 1910.1200				

CHEMICAL NAME	SUB Z	SARA 313	OSHA PEL	ACGIH TLV	OTHER LIMITS
THIS PRODUCT IS DEFINED AS AN "ARTICLE" AND IS NOT CLASSIFIED AS HAZARDOUS IN ACCORDANCE WITH OSHA CFR 1910.1200		NA	NA	NI	

-----3. HAZARDOUS IDENTIFICATION ------

HAZARD CATEGORY:
() ACUTE
() CHRONIC
() FIRE
() PRESSURE
() REACTIVE

HAZARDOUS IDENTIFICATION INFORMATION:

HAZARDS OVERVIEW:
THIS MATERIAL IS NOT HAZARDOUS UNDER NORMAL CONDITIONS OF USE. IT IS SOLID AT ROOM TEMPERATURE EXHIBITING ELEVATED TEMPERATURE SOFTENING CHA[illegible]TERISTICS. HOWEVER, ABOVE ITS SOFTENING POINT, THE MATERIAL LIC[illegible]S AND FLOWS MORE READILY AS THE TEMPERATURE INCREASES. AT ELEVATED TE[illegible]TURES WELL ABOVE NORMAL CONDITIONS OF USE AND WELL ABOVE ITS SOFTENING POINT AND IN CONTACT WITH AIR, THE GENERATION OF HYDROCARBON VAPORS INCLUDING POSSIBLE OXIDIZED PRODUCTS MAY BE EXPECTED.

------4. FIRST AID MEASURES ------

ROUTE(S) OF ENTRY:

EYE CONTACT:
NOT A LIKELY ROUTE OF ENTRY UNDER NORMAL CONDITIONS OF USE. EXPOSURE TO FUMES, VAPORS OR SMOKE FROM THERMALLY DEGRADED PRODUCT CAN CAUSE IRRITATION TO EYES.

INHALATION:
NOT A LIKELY ROUTE OF ENTRY UNDER NORMAL CONDITIONS OF USE. EXPOSURE TO VAPORS, FUMES, OR SMOKE FROM MOLTEN MATERIAL HANDLED IN CONFINED AREAS CAN PRODUCE IRRITATION OF RESPIRATORY TRACTS, AND POSSIBLE PHYSICAL DISCOMFORT TO SENSITIVE INDIVIDUALS.

INGESTION:
THIS MATERIAL IS ESSENTIALLY INERT AND NOT-TOXIC. REGARDLESS OF THIS THE MATERIAL SHOULD BE HANDLED WITH CARE AND NOT BE INGESTED OR PUT IN MOUTH.

SKIN:
NOT A LIKELY ROUTE OF ENTRY UNDER NORMAL CONDITIONS OF USE. MOLTEN MATERIAL CAN CAUSE SEVERE BURNS.

HEALTH HAZARDS (ACUTE AND CHRONIC):
APPEARS TO BE NO SIGNIFICANT RISK. PERMISSABLE CONCENTRATIONS IN AIR 5 MG/M3 FOR MINERAL OIL MIST (OSHA). INHALATION OF FUMES IN HIGH CONCENTRATION MAY CAUSE DIZZINESS, HEADACHE, RESPIRATORY IRRITATION OR UNCONSCIOUSNESS; REMOVE VICTIM TO FRESH AIR.

SIGNS AND SYMPTOMS:

INGESTION:
MATERIAL IS NOT ACUTELY TOXIC BY INGESTION. HAS LAXATIVE PROPERTIES AND MAY RESULT IN ABDOMINAL CRAMPS AND DIARRHEA, CALL A PHYSICIAN.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

EMERGENCY AND FIRST AID PROCEDURES:

EMERGENCY FIRST AID CALL: 1-303-623-5716 COLLECT

FOR MOLTEN MATERIAL ONLY:
EYES AND SKIN - FLUSH IMMEDIATELY WITH COLD WATER AND CALL A PHYSICIAN.
IF SWALLOWED CALL A PHYSICIAN.

OTHER HEALTH WARNINGS: NI

------5. FIRE FIGHTING MEASURES ------

FLASH POINT: >360 DEG. F
F.P. METHOD: ASTM D92

LOWER EXPLOSIVE LIMIT: .9% BY VOL.
UPPER EXPLOSIVE LIMIT: 7.0% BY VOL.

FIRE EXTINGUISHING MEDIA:
DRY CHEMICAL, FOAM, CO_2, OR WATER FOG TO EXTINGUISH - DO NOT USE DIRECT WATER STREAM. USE WATER FOG TO COOL LIQUID WAX AFTER FIRE IS EXTINGUISHED.

SPECIAL FIRE FIGHTING PROCEDURES:
WATER STREAM/SPRAY MAY NOT BE EFFECTIVE EXTINGUISHING AGENT.

FIRE FIGHTERS SHOULD USE SELF-CONTAINED BREATHING APPARATUS TO PROTECT AGAINST SMOKE INHALATION.

UNUSUAL FIRE AND EXPLOSION: NI

------6. ACCIDENTAL RELEASE MEASURES ------

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
HANDLE AS A THERMOPLASTIC. WITH MOLTEN SPILLS, ALLOW THE MATERIAL TO SOLIDIFY AND COOL. KEEP MATERIAL OUT OF SEWERS AND WATERCOURSES BY DIKING OR IMPOUNDING. RECOVER AND PLACE INTO APPROPRIATE CONTAINERS FOR RECYCLING OR DISPOSAL, ACCORDING TO ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.

------7. HANDLING AND STORAGE ------

PRECAUTIONS TO BE TAKEN:
STORE AWAY FROM FLAME, HEAT (110 DEG. F MAXIMUM TO KEEP WAX RINGS FROM MELTING OR DEFORMING IN SHAPE) AND STRONG OXIDIZING AGENTS. DO NOT STACK CASES MORE THAN FIVE (5) CARTONS HIGH ON EACH PALLET.

OTHER PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN AND PETS

------8. EXPOSURE CONTROLS/PERSONAL PROTECTION ------

VENTILATION REQUIREMENTS:
NORMAL ROOM VENTILATION IS SUITABLE UNDER NORMAL CONDITIONS OF USE.

PERSONAL PROTECTIVE EQUIPMENT:
NO PERSONAL PROTECTIVE EQUIPMENT NECESSARY UNDER NORMAL CONDITIONS OF USE.

------9. PHYSICAL AND CHEMICAL PROPERTIES ------

BOILING POINT: NA

MELTING POINT: APPROX. 150 DEG. F

EVAPORATION RATE (BUTYL ACETATE = 1): NA

VAPOR PRESSURE (MMHg.): NA

SPECIFIC GRAVITY (H_2O = 1): 0.70500

VAPOR DENSITY (AIR = 1): NA

SOLUBILITY IN WATER: NEGLIGIBLE

APPEARANCE AND ODOR: LIGHT TO DARK BROWN SOFT SOLID/LIGHT PETROLEUM ODOR.

OTHER INFORMATION: NI

------10. STABILITY AND REACTIVITY ------

STABILITY: STABLE.

INCOMPATIBILITY (MATERIALS TO AVOID):

KEEP AWAY FROM FLAME, HEAT (200 F DEG MAX) AND STRONG OXIDIZING AGENTS.

DECOMPOSITION/BY PRODUCTS:
UPON COMBUSTION, CARBON DIOXIDE, CARBON MONOXIDE AND OTHER PRODUCTS SUCH AS ALDEHYDES AND KETONES DEPENDING ON CONDITIONS OF OXIDATION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

------11. TOXICOLOGICAL INFORMATION ------

ESSENTIALLY NON-TOXIC UNDER NORMAL CONDITIONS OF USE. WAX FUMES HAVE BEEN REPORTED TO BE IRRITATING TO THE RESPIRATORY TRACT, ESPECIALLY TO SENSITIZED PERSONS. MOLTEN PRODUCT COULD CAUSE THERMAL BURNS ON CONTACT WITH THE SKIN.

------12. ECOLOGICAL INFORMATION ------

MATERIAL IS NOT CONSIDERED HARMFUL TO THE ENVIRONMENT. NEVERTHELESS, MATERIAL FROM SPILLS AND OTHER GENERATED WASTE MUST BE DISPOSED OF PROPERLY IN CONFORMANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS.

------13. DISPOSAL CONSIDERATIONS ------

THIS MATERIAL IS NOT A RCRA HAZARDOUS WASTE MATERIAL. DISPOSE OF ACCORDING TO APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

------14. TRANSPORT INFORMATION ------

TRANSPORTATION INFORMATION:
DOT PROPER SHIPPING NAME: NOT REGULATED
DOT LABEL: NONE REQUIRED
DOT NUMBER: N/A
UN NUMBER: N/A
IMCO CLASS: N/A
DOT HAZARD CLASSIFICATION: N/A

------15. REGULATORY INFORMATION ------

CERCLA: THIS MATERIAL IS NOT REPORTABLE UNDER 40 CFR PART 302.4.

OSHA: NON-HAZARDOUS AS DEFINED BY 29 CFR 19.1200.

RCRA: THIS MATERIAL IS NOT A RCRA HAZARDOUS WASTE.

SARA:
NOT APPLICABLE TO SECTIONS 311 AND 312. SECTION 313: NONE.

TSCA:
THIS PRODUCT, OR ITS INGREDIENTS AS A MIXTURE, APPEARS ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY.

------16. OTHER INFORMATION ------

ABBREVIATIONS:
APPROX. = APPROXIMATELY
< = LESS THAN
> = GREATER THAN
ACGIH = AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
AIHA = AMERICAN INDUSTRIAL HYGIENE ASSOCIATION
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F = DEGREES FARENHEIT
HMIS = HAZARDOUS MATERIALS INFORMATION SYSTEM
IARC = INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
NA = NOT APPLICABLE
NDA = NO DATA AVAILABLE
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NI = NOT INDICATED
NIOSH = NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH
NTP = NATIONAL TOXICOLOGY PROGRAM
OSHA = OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

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ITEM: 5PA58 - Toilet Bowl Gasket

MSDS A9479 DELIVERY: **6240072301** HU NUMBER: U234099560

MATERIAL SAFTETY DATA SHEET (MSDS)

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - A9479

As[illegible]d Grainger Items
5P[illegible]

MSDS - MATERIAL SAFETY DATA SHEET

THURSDAY, NOVEMBER 30, 2006

PRODUCT NAME: NO-SEEP(R*) WAX GASKET

MSDS NO.: 001115

PART NUMBERS COVERED:
001001
001002
001003
001004-24
001005-24
001005-24D
001005-SP
001006
001007
001008
001009
001010
001010-24
001011
001012
001013
001014
001015
001016
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001018
001019
001020
001023
001024
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001025-N
001026-N
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001029-N
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001035-24
001037
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001095-N
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001105
001106
001109-N
001110
001111
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001114
001115-12
001115-24
001115-24D
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001116-12
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001117-12
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001118-12
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001330-D
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001392
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001395-SP
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004005
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004300-SP
004301-24D
004301-SP
004302
004303-SP
004304-24D
004305-24
004305-24D
004305-SP
004306
004308
004309
004310
004310-24
004311
004312
004318
004320
004340
004345
004350
004355
004355-SP
004360
004362
004370
004371
004372
004373
004374
004375
004375-24
004375-24D
004375-D
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004376-D
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004378
004378-24
004378-D
004405
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004410-SP
004411
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004495
004495-12
004495-SP
004496
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004510
004516-SP
004605
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006007
006008
006028
006029
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006030-N
006031
006032-N
006036-N
006038-N
006050
006050-N
006051
006200
006230
006240
006260

-----1. BASIC INFORMATION -----

MANUFACTURER: WILLIAM H. HARVEY COMPANY
ADDRESS: 4334 SOUTH 67TH STREET
CITY, ST ZIP: OMAHA, NE 68117-1019

EMERGENCY CONTACT: CHEMTREC
EMERGENCY TELEPHONE NUMBER: (800) 424-9300

CONTACT: INFORMATION TELEPHONE NUMBER
INFORMATION TELEPHONE NUMBER: (800) 228-9681

LAST UPDATE: 11/30/2006

EXPIRATION DATE:

CHEMICAL STATE:
() LIQUID
() GAS
(X) SOLID

CHEMICAL TYPE:
() PURE
(X) MIXTURE

NFPA:
HEALTH 0
FIR[illegible]
RE[illegible]TY 0
SPE[illegible]

0 HEALTH
1 FLAMMABILITY
0 REACTIVITY
A PERS. PROTECTION

-----2. INGREDIENTS -----

() TRADE SECRET:

CAS NO.	CHEMICAL NAME	% RANGE	EHS	NTP	IARC	SUB Z
NA	THIS PRODUCT IS DEFINED AS AN "ARTICLE" AND IS NOT CLASSIFIED AS HAZARDOUS IN ACCORDANCE WITH OSHA CFR 1910.1200					

CHEMICAL NAME	SARA 313	OSHA PEL	ACGIH TLV	OTHER LIMITS
THIS PRODUCT IS DEFINED AS AN "ARTICLE" AND IS NOT CLASSIFIED AS HAZARDOUS IN ACCORDANCE WITH OSHA CFR 1910.1200	NA	NA	NI	

-----3. HAZARDOUS IDENTIFICATION -----

HAZARD CATEGORY:
() ACUTE
() CHRONIC
() FIRE
() PRESSURE
() REACTIVE

HAZARDOUS IDENTIFICATION INFORMATION:
HAZARDS OVERVIEW:
THIS MATERIAL IS NOT HAZARDOUS UNDER NORMAL CONDITIONS OF USE. IT IS SOLID AT ROOM TEMPERATURE EXHIBITING ELEVATED TEMPERATURE SOFTENING CHARACTERISTICS. HOWEVER, ABOVE ITS SOFTENING POINT, THE MATERIAL LIQUEFIES AND FLOWS MORE READILY AS THE TEMPERATURE INCREASES. AT ELEVATED TEMPERATURES WELL ABOVE NORMAL CONDITIONS OF USE AND WELL ABOVE ITS SOF[illegible]NG POINT AND IN CONTACT WITH AIR, THE GENERATION OF HYDROCARBON VA[illegible]NCLUDING POSSIBLE OXIDIZED PRODUCTS MAY BE EXPECTED.

-----4. FIRST AID MEASURES -----

ROUTE(S) OF ENTRY:

EYE CONTACT:
NOT A LIKELY ROUTE OF ENTRY UNDER NORMAL CONDITIONS OF USE. EXPOSURE TO FUMES, VAPORS OR SMOKE FROM THERMALLY DEGRADED PRODUCT CAN CAUSE IRRITATION TO EYES.

INHALATION:
NOT A LIKELY ROUTE OF ENTRY UNDER NORMAL CONDITIONS OF USE. EXPOSURE TO VAPORS, FUMES, OR SMOKE FROM MOLTEN MATERIAL HANDLED IN CONFINED AREAS CAN PRODUCE IRRITATION OF RESPIRATORY TRACTS, AND POSSIBLE PHYSICAL DISCOMFORT TO SENSITIVE INDIVIDUALS.

INGESTION:
THIS MATERIAL IS ESSENTIALLY INERT AND NOT-TOXIC. REGARDLESS OF THIS THE MATERIAL SHOULD BE HANDLED WITH CARE AND NOT BE INGESTED OR PUT IN MOUTH.

SKIN:
NOT A LIKELY ROUTE OF ENTRY UNDER NORMAL CONDITIONS OF USE. MOLTEN MATERIAL CAN CAUSE SEVERE BURNS.

HEALTH HAZARDS (ACUTE AND CHRONIC):
APPEARS TO BE NO SIGNIFICANT RISK. PERMISSIBLE CONCENTRATIONS IN AIR 5 MG/M3 FOR MINERAL OIL MIST (OSHA). INHALATION OF FUMES IN HIGH CONCENTRATION MAY CAUSE DIZZINESS, HEADACHE, RESPIRATORY IRRITATION OR UNCONSCIOUSNESS; REMOVE VICTIM TO FRESH AIR.

SIGNS AND SYMPTOMS:

INGESTION:
MATERIAL IS NOT ACUTELY TOXIC BY INGESTION. HAS LAXATIVE PROPERTIES AND MAY RESULT IN ABDOMINAL CRAMPS AND DIARRHEA, CALL A PHYSICIAN.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

EMERGENCY AND FIRST AID PROCEDURES:

EMERGENCY FIRST AID CALL: 1-303-623-5716 COLLECT

FOR MOLTEN MATERIAL ONLY:
EYES AND SKIN - FLUSH IMMEDIATELY WITH COLD WATER AND CALL A PHYSICIAN.
IF SWALLOWED CALL A PHYSICIAN.

OTHER HEALTH WARNINGS: NI

-----5. FIRE FIGHTING MEASURES -----

FLASH POINT: > 360 DEG. F
F.P. METHOD: ASTM D92

LOWER EXPLOSIVE LIMIT: .9% BY VOL.
UPPER EXPLOSIVE LIMIT: 7.0% BY VOL.

FIRE EXTINGUISHING MEDIA:
DRY CHEMICAL, FOAM, CO2, OR WATER FOG TO EXTINGUISH - DO NOT USE DIRECT WATER STREAM. USE WATER FOG TO COOL LIQUID WAX AFTER FIRE IS EXTINGUISHED.

SPECIAL FIRE FIGHTING PROCEDURES:
WATER STREAM/SPRAY MAY NOT BE EFFECTIVE EXTINGUISHING AGENT.
FIRE FIGHTERS SHOULD USE SELF-CONTAINED BREATHING APPARATUS TO PROTECT AGAINST SMOKE INHALATION.

UNUSUAL FIRE AND EXPLOSION: NI

-----6. ACCIDENTAL RELEASE MEASURES -----

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
HANDLE AS A THERMOPLASTIC. WITH MOLTEN SPILLS, ALLOW THE MATERIAL TO SOLIDIFY AND COOL. KEEP MATERIAL OUT OF SEWERS AND WATERCOURSES BY DIKING OR IMPOUNDING. RECOVER AND PLACE INTO APPROPRIATE CONTAINERS FOR RECYCLING OR DISPOSAL, ACCORDING TO ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.

-----7. HANDLING AND STORAGE -----

PRECAUTIONS TO BE TAKEN:
STORE AWAY FROM FLAME, HEAT (110 DEG. F MAXIMUM TO KEEP WAX RINGS FROM MELTING OR DEFORMING IN SHAPE) AND STRONG OXIDIZING AGENTS. DO NOT STACK CASES MORE THAN FIVE (5) CARTONS HIGH ON EACH PALLET.

OTHER PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN AND PETS

-----8. EXPOSURE CONTROLS/PERSONAL PROTECTION -----

VENTILATION REQUIREMENTS:
NORMAL ROOM VENTILATION IS SUITABLE UNDER NORMAL CONDITIONS OF USE.

PERSONAL PROTECTIVE EQUIPMENT:
NO PERSONAL PROTECTIVE EQUIPMENT NECESSARY UNDER NORMAL CONDITIONS OF USE.

-----9. PHYSICAL AND CHEMICAL PROPERTIES -----

BOILING POINT: NA

MELTING POINT: 150 DEG. F

EVAPORATION RATE (BUTYL ACETATE = 1): NA

VAPOR PRESSURE (MM HG.): NA

SPECIFIC GRAVITY (H2O = 1): 0.70500

VAPOR DENSITY (AIR = 1): NA

SOLUBILITY IN WATER: NEGLIGIBLE

APPEARANCE AND ODOR: LIGHT TO DARK BROWN SOFT SOLID/LIGHT PETROLEUM ODOR.

OTHER INFORMATION: NI

-----10. STABILITY AND REACTIVITY -----

STABILITY: STABLE.

INCOMPATIBILITY (MATERIALS TO AVOID):
KEEP AWAY FROM FLAME, HEAT (200 F DEG MAX) AND STRONG OXIDIZING AGENTS.

DECOMPOSITION/BY PRODUCTS:
UPON COMBUSTION, CARBON DIOXIDE, CARBON MONOXIDE AND OTHER PRODUCTS SUCH AS

ALDEHYDES AND KETONES DEPENDING ON CONDITIONS OF OXIDATION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

------11. TOXICOLOGICAL INFORMATION ------

ESSENTIALLY NON-TOXIC UNDER NORMAL CONDITIONS OF USE. WAX FUMES HAVE BEEN REPORTED TO BE IRRITATING TO THE RESPIRATORY TRACT, ESPECIALLY TO SENSITIZED PERSONS. MOLTEN PRODUCT COULD CAUSE THERMAL BURNS ON CONTACT WITH THE SKIN.

------12. ECOLOGICAL INFORMATION ------

MATERIAL IS NOT CONSIDERED HARMFUL TO THE ENVIRONMENT. NEVERTHELESS, MATERIAL FROM SPILLS AND OTHER GENERATED WASTE MUST BE DISPOSED OF PROPERLY IN CONFORMANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS.

------13. DISPOSAL CONSIDERATIONS ------

THIS MATERIAL IS NOT A RCRA HAZARDOUS WASTE MATERIAL. DISPOSE OF ACCORDING TO APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

------14. TRANSPORT INFORMATION ------

TRANSPORTATION INFORMATION:
DOT PROPER SHIPPING NAME: NOT REGULATED
DOT LABEL: NONE REQUIRED
DOT NUMBER: N/A
UN NUMBER: N/A
IMCO CLASS: N/A
DOT HAZARD CLASSIFICATION: N/A

------15. REGULATORY INFORMATION ------

CERCLA: THIS MATERIAL IS NOT REPORTABLE UNDER 40 CFR PART 302.4.

OSHA: NON-HAZARDOUS AS DEFINED BY 29 CFR 19.1200.

RCRA: THIS MATERIAL IS NOT A RCRA HAZARDOUS WASTE.

SARA:
NOT APPLICABLE TO SECTIONS 311 AND 312. SECTION 313: NONE.

TSCA:
THIS PRODUCT, OR ITS INGREDIENTS AS A MIXTURE, APPEARS ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY.

------16. OTHER INFORMATION ------

ABBREVIATIONS:
APPROX. = APPROXIMATELY
< = LESS THAN
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TREMSTOP ACRYLIC RUST RED 17L PAIL

Version *1.5*
REVISION DATE: 01/21/2008

Print Date 01/24/2008

SECTION 1 - PRODUCT IDENTIFICATION / PREPARATION INFORMATION

Product Information

Trade name	:	TREMSTOP ACRYLIC RUST RED 17L PAIL
Product code	:	901874 805
Supplier	:	Tremco Canada division 220 Wicksteed Avenue Toronto, ON M4H 1G7
Telephone	:	(416) 421-3300
Emergency Phone:	:	(613) 996-6666
Product use	:	Sealant

Preparation Information

Prepared by:	:	Sewnauth Raghunandan
Date:	:	01/21/2008
Telephone	:	(416) 421-3300

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

Rust Red. Non-sag gunnable paste. May cause slight irritation to the respiratory system. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation	:	May cause slight irritation to the respiratory system.
Eyes	:	Slightly irritating.
Ingestion	:	May cause irritation to the mouth, throat and stomach.
Skin	:	Irritant effect may be delayed.

Aggravated Medical Conditions

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Long term overexposure to propylene glycol caused liver abnormalities, kidney damage in laboratory animals. Repeated excessive ingestion may cause central nervous system effects. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

SECTION 3 : HAZARDOUS INGREDIENTS

Chemical Name	CAS-No.	Weight % Range
Amorphous silica	7631-86-9	1.0 - 5.0
Propylene glycol	57-55-6	1.0 - 5.0
Titanium dioxide	13463-67-7	0.1 - 1.0
Chlorothalonil	1897-45-6	0.1 - 1.0

The ingredients listed above are hazardous as defined in the controlled products regulation. (CPR).

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

Inhalation	:	Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
Eye contact	:	Flush with water for 15 minutes. If irritation persists, get medical attention.
Skin contact	:	Wash with water. If irritation, rash or other disorders develop, get medical attention immediately.
Ingestion	:	Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

SECTION 5: FIRE / EXPLOSION HAZARDS

Flash point	:	Not available.
Method	:	Not available.
Burning rate	:	Non-flammable solid
Lower explosion limit	:	Not available.
Upper explosion limit	:	Not available.
Autoignition temperature	:	Not available.
Extinguishing media	:	This product is not expected to burn under normal conditions of use.Use that which is appropriate to the surroundings.
Hazardous combustion products	:	Smoke, fumes.
Protective equipment for firefighters	:	Not applicable. Product is not expected to burn.
Fire and explosion conditions	:	This product not expected to ignite under normal conditions of use.

SECTION 6 - SPILLS / LEAKS / ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Scrape up and transfer to appropriate container for disposal. Keep out of water courses.

SECTION 7 - HANDLING AND STORAGE

Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. Do not use in confined or poorly ventilated areas. Store in sealed containers in a dry, ventilated warehouse location above freezing.

SECTION 8 - PREVENTIVE MEASURES/EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection equipment

Respiratory protection	:	Not required under normal conditions of use.
Hand protection	:	Protect hands with impervious gloves.

Eye protection	:	Use safety glasses if eye contact is likely.
Protective measures	:	Use professional judgment in the selection, care, and use.Other equipment not normally required.
Engineering measures	:	General ventilation is sufficient.Use local exhaust when the general ventilation is inadequate.

Exposure Limits

Chemical Name	CAS Number	Regulation	Limit	Form
Amorphous silica	7631-86-9	Ontario TWA: Ontario TWA: ACGIH TWA: ACGIH TWA: Ontario TWA:	3 mg/m3 10 mg/m3 3 mg/m3 10 mg/m3 10 mg/m3	Respirable particles. Inhalable particulate. Respirable particles. Inhalable particles.
Titanium dioxide	13463-67-7	Ontario TWA: ACGIH TWA:	10 mg/m3 10 mg/m3	Total dust.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Paste
Form	:	Non-sag gunnable paste
Color	:	Rust Red
Odor	:	MildGlycolAcrylate
pH	:	Not available.
Vapour pressure	:	Not available.
Vapor density	:	Heavier than air
Melting point/range	:	< 32 ℃, < 90 ℉
Freezing point	:	Not available.
Boiling point/range	:	Not available.
Water solubility	:	Miscible
Evaporation Rate:	:	Not available.
Specific Gravity	:	1.04
% Volatile Weight	:	35 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	:	Oxidizing agents.Strong acids.Strong bases.

SECTION 11 - TOXICOLOGICAL INFORMATION

Amorphous silica, CAS-No.: 7631-86-9

Acute oral toxicity (LD-50 oral) 22,500 mg/kg (Rat) 22,500 mg/kg (Rat) 15,000 mg/kg (Mouse) 15,000 mg/kg (Mouse)

Propylene glycol, CAS-No.: 57-55-6

Acute oral toxicity (LD-50 oral)	30,000 mg/kg (Rat) 18,000 mg/kg (Rabbit) 19,000 mg/kg (Dog) 23,900 - 31,800 mg/kg (Mouse) 18,400 - 196,000 mg/kg (Guinea pig)

Chlorothalonil, CAS-No.: 1897-45-6

Acute oral toxicity (LD-50 oral)	10,000 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal)	10,000 mg/kg (Albino rat)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Disposal Method : Dispose as hazardous waste according to all local, state, federal and provincial regulations.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

North American Inventories:
All components are listed or exempt from the TSCA inventory.
This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

Canadian Regulations:
WHMIS Classification : D2A
This is a "controlled product" under the Canadian 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 of the information required by the CPR.

Other Regulations:
Regulatory VOC (less water and exempt solvent) : 35 g/l

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	1
Flammability	0
Reactivity	0
PPE	

0 = Minimum
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Sewnauth Raghunandan

Legend

ACGIH - American Conference of Governmental Hygienists
DOT - Department of Transportation
DSL - Domestic Substance List
EPA - Environmental Protection Agency
HMIS - Hazardous Materials Information System
IARC - International Agency for Research on Cancer
MSHA - Mine Safety Health Administration
NDSL - Non-Domestic Substance List
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
RCRA - Resource Conservation and Recovery Act
STEL - Short Term Exposure Limit
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
V - Volume
VOC - Volatile Organic Compound
WHMIS - Workplace Hazardous Materials Information System

GRAINGER
FOR THE ONES WHO GET IT DONE

[X] Close this window MSDS

Common Name: TITEBOND PANEL & FOAMBOARD ADHESIVE, 3461
Manufacturer: FRANKLIN INTERNATIONAL
MSDS Revision Date: 10/19/2010

Grainger Item Number(s): 3KRX1
Manufacturer Model Number(s):

MSDS Table of Contents

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9. PHYSICAL AND CHEMICAL PROPERTIES
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FRANKLIN INTERNATIONAL

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: TITEBOND PANEL & FOAMBOARD ADHESIVE

1. PRODUCT AND COMPANY IDENTIFICATION

top

CAS #: MIXTURE

ADDRESS:
FRANKLIN INTERNATIONAL
2020 BRUCK STREET
COLUMBUS OH 43207

CONTACT PERSON: FRANKLIN TECHNICAL SERVICES

TELEPHONE: (800) 877-4583

EMERGENCY PHONE:
FRANKLIN SECURITY: (614) 445-1300

CHRONIC EFFECTS:
PROLONGED OR REPEATED CONTACT CAN DEFAT THE SKIN AND LEAD TO IRRITATION, CRACKING AND/OR DERMATITIS.

CARCINOGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

MUTAGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

TERATOGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

DEVELOPMENTAL EFFECTS: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

FERTILITY EFFECTS: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

TARGET ORGANS:
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS:
PERIPHERAL NERVOUS SYSTEM, UPPER RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM (CNS), EYE, LENS OR CORNEA.

OVER-EXPOSURE SIGNS/SYMPTOMS:

INHALATION:
HIGH VAPOR CONCENTRATIONS CAN CAUSE HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS.

ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:
RESPIRATORY TRACT IRRITATION
COUGHING

INGESTION: NO SPECIFIC DATA.

SKIN:
ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:
IRRITATION
REDNESS
DRYNESS
CRACKING

EYES:
ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:
PAIN OR IRRITATION
WATERING
REDNESS

MEDICAL CONDITIONS AGGRAVATED BY OVER-EXPOSURE: NONE KNOWN.

SEE TOXICOLOGICAL INFORMATION (SECTION 11)

3. COMPOSITION/INFORMATION ON INGREDIENTS

top

UNITED STATES:

NAME	CAS NUMBER	%
N-HEXANE	110-54-3	25 - 50
ISOPROPANOL	67-63-0	1 - 5

CANADA:

NAME	CAS NUMBER	%

REFERENCE NUMBER: 3105

PRODUCT CODE: 3461

DATE OF REVISION: 10/19/2010.

PRINT DATE: 12/16/2010.

CHEMTREC (24 HOUR): (800) 424-9300

CHEMTREC INTERNATIONAL: (703) 527-3887

CHEMICAL FAMILY: ADHESIVE.

PRODUCT USE: ADHESIVE

PRODUCT TYPE: SOLVENT BASED

2. HAZARDS IDENTIFICATION

top

PHYSICAL STATE: LIQUID. [PASTE.]

ODOR: ALCOHOL-LIKE.

OSHA/HCS STATUS:
THIS MATERIAL IS CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EMERGENCY OVERVIEW:

DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR. FLAMMABLE. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF INHALED. CAUSES EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.

EXTREMELY FLAMMABLE LIQUID. HARMFUL BY INHALATION. MAY BE HARMFUL IF SWALLOWED. SEVERELY IRRITATING TO EYES. IRRITATING TO SKIN. MODERATELY IRRITATING TO THE RESPIRATORY SYSTEM. DEFATTING TO THE SKIN. KEEP AWAY FROM HEAT, SPARKS AND FLAME. DO NOT BREATHE VAPOR OR MIST. DO NOT INGEST. DO NOT GET IN EYES. AVOID CONTACT WITH SKIN AND CLOTHING. USE ONLY WITH ADEQUATE VENTILATION. KEEP CONTAINER TIGHTLY CLOSED AND SEALED UNTIL READY FOR USE. WASH THOROUGHLY AFTER HANDLING.

ROUTES OF ENTRY: DERMAL CONTACT. EYE CONTACT. INHALATION. INGESTION.

POTENTIAL ACUTE HEALTH EFFECTS:

INHALATION:
TOXIC BY INHALATION. MODERATELY IRRITATING TO THE RESPIRATORY SYSTEM.

INGESTION: HARMFUL IF SWALLOWED.

SKIN: IRRITATING TO SKIN.

EYES: SEVERELY IRRITATING TO EYES. RISK OF SERIOUS DAMAGE TO EYES.

POTENTIAL CHRONIC HEALTH EFFECTS:

CHRONIC EFFECTS:

N-HEXANE	110-54-3	25 - 50
ISOPROPANOL	67-63-0	1 - 5

MEXICO:

NAME	CAS NUMBER	UN NUMBER	%	IDLH	CLASSIFICATION H	F	R	SPECIAL
N-HEXANE	110-54-3	UN1993	25 - 50	1100 PPM	0	3	0	
ISOPROPANOL	67-63-0	UN1993	1 - 5	2000 PPM	0	3	0	

THERE ARE NO ADDITIONAL INGREDIENTS PRESENT WHICH, WITHIN THE CURRENT KNOWLEDGE OF THE SUPPLIER AND IN THE CONCENTRATIONS APPLICABLE, ARE CLASSIFIED AS HAZARDOUS TO HEALTH OR THE ENVIRONMENT AND HENCE REQUIRE REPORTING IN THIS SECTION.

4. FIRST AID MEASURES

top

EYE CONTACT:
CHECK FOR AND REMOVE ANY CONTACT LENSES. IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:
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. CLEAN SHOES THOROUGHLY BEFORE REUSE. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:
MOVE EXPOSED PERSON TO FRESH AIR. IF NOT BREATHING, IF BREATHING IS IRREGULAR OR IF RESPIRATORY ARREST OCCURS, PROVIDE ARTIFICIAL RESPIRATION

OR OXYGEN BY TRAINED PERSONNEL. LOOSEN TIGHT CLOTHING SUCH AS A COLLAR, TIE, BELT OR WAISTBAND. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:
WASH OUT MOUTH WITH WATER. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

PROTECTION OF FIRST-AIDERS:
NO ACTION SHALL BE TAKEN INVOLVING ANY PERSONAL RISK OR WITHOUT SUITABLE TRAINING. IF IT IS SUSPECTED THAT FUMES ARE STILL PRESENT, THE RESCUER SHOULD WEAR AN APPROPRIATE MASK OR SELF-CONTAINED BREATHING APPARATUS. IT MAY BE DANGEROUS TO THE PERSON PROVIDING AID TO GIVE MOUTH-TO-MOUTH RESUSCITATION. WASH CONTAMINATED CLOTHING THOROUGHLY WITH WATER BEFORE REMOVING IT, OR WEAR GLOVES.

NOTES TO PHYSICIAN:
NO SPECIFIC TREATMENT. TREAT SYMPTOMATICALLY. CONTACT POISON TREATMENT SPECIALIST IMMEDIATELY IF LARGE QUANTITIES HAVE BEEN INGESTED OR INHALED.

5. FIRE-FIGHTING MEASURES

top

FLAMMABILITY OF THE PRODUCT:
EXTREMELY FLAMMABLE LIQUID. IN A FIRE OR IF HEATED, A PRESSURE INCREASE WILL OCCUR AND THE CONTAINER MAY BURST, WITH THE RISK OF A SUBSEQUENT

EXPLOSION.

EXTINGUISHING MEDIA:
SUITABLE: USE DRY CHEMICAL, CO2, WATER SPRAY (FOG) OR FOAM.
NOT SUITABLE: DO NOT USE WATER JET.

SPECIAL EXPOSURE HAZARDS:
PROMPTLY ISOLATE THE SCENE BY REMOVING ALL PERSONS FROM THE VICINITY OF THE INCIDENT IF THERE IS A FIRE. NO ACTION SHALL BE TAKEN INVOLVING ANY PERSONAL RISK OR WITHOUT SUITABLE TRAINING. MOVE CONTAINERS FROM FIRE AREA IF THIS CAN BE DONE WITHOUT RISK. USE WATER SPRAY TO KEEP FIRE-EXPOSED CONTAINERS COOL.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:
FIRE-FIGHTERS SHOULD WEAR APPROPRIATE PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS (SCBA) WITH A FULL FACE-PIECE OPERATED IN POSITIVE PRESSURE MODE.

6. ACCIDENTAL RELEASE MEASURES

top

PERSONAL PRECAUTIONS:
NO ACTION SHALL BE TAKEN INVOLVING ANY PERSONAL RISK OR WITHOUT SUITABLE TRAINING. EVACUATE SURROUNDING AREAS. KEEP UNNECESSARY AND UNPROTECTED PERSONNEL FROM ENTERING. DO NOT TOUCH OR WALK THROUGH SPILLED MATERIAL. SHUT OFF ALL IGNITION SOURCES. NO FLARES, SMOKING OR FLAMES IN HAZARD AREA. DO NOT BREATHE VAPOR OR MIST. PROVIDE ADEQUATE VENTILATION. WEAR APPROPRIATE RESPIRATOR WHEN VENTILATION IS INADEQUATE. PUT ON APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (SEE SECTION 8).

ENVIRONMENTAL PRECAUTIONS:
AVOID DISPERSAL OF SPILLED MATERIAL AND RUNOFF AND CONTACT WITH SOIL, WATERWAYS, DRAINS AND SEWERS. INFORM THE RELEVANT AUTHORITIES IF THE PRODUCT HAS CAUSED ENVIRONMENTAL POLLUTION (SEWERS, WATERWAYS, SOIL OR AIR).

SMALL SPILL:
STOP LEAK IF WITHOUT RISK. MOVE CONTAINERS FROM SPILL AREA. USE SPARK-PROOF TOOLS AND EXPLOSION-PROOF EQUIPMENT. DISPOSE OF VIA A LICENSED WASTE DISPOSAL CONTRACTOR. ABSORB WITH AN INERT MATERIAL.

LARGE SPILL:
STOP LEAK IF WITHOUT RISK. MOVE CONTAINERS FROM SPILL AREA. APPROACH RELEASE FROM UPWIND. PREVENT ENTRY INTO SEWERS, WATER COURSES, BASEMENTS OR CONFINED AREAS. CONTAIN AND COLLECT SPILLAGE WITH NON-COMBUSTIBLE, ABSORBENT MATERIAL E.G. SAND, EARTH, VERMICULITE OR DIATOMACEOUS EARTH AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE SECTION 13). USE SPARK-PROOF TOOLS AND EXPLOSION-PROOF EQUIPMENT. DISPOSE OF VIA A LICENSED WASTE DISPOSAL CONTRACTOR. CONTAMINATED ABSORBENT MATERIAL MAY POSE THE SAME HAZARD AS THE SPILLED PRODUCT.

NOTE:
SEE SECTION 1 FOR EMERGENCY CONTACT INFORMATION AND SECTION 13 FOR WASTE DISPOSAL.

7. HANDLING AND STORAGE

top

HANDLING:
PUT ON APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (SEE SECTION 8). EATING, DRINKING AND SMOKING SHOULD BE PROHIBITED IN AREAS WHERE THIS MATERIAL IS

DRINKING AND SMOKING SHOULD BE PROHIBITED IN AREAS WHERE THIS MATERIAL IS HANDLED, STORED AND PROCESSED. WORKERS SHOULD WASH HANDS AND FACE BEFORE EATING, DRINKING AND SMOKING. DO NOT GET IN EYES OR ON SKIN OR CLOTHING. DO NOT BREATHE VAPOR OR MIST. DO NOT INGEST. USE ONLY WITH ADEQUATE VENTILATION. WEAR APPROPRIATE RESPIRATOR WHEN VENTILATION IS INADEQUATE. DO NOT ENTER STORAGE AREAS AND CONFINED SPACES UNLESS ADEQUATELY VENTILATED. KEEP IN THE ORIGINAL CONTAINER OR AN APPROVED ALTERNATIVE MADE FROM A COMPATIBLE MATERIAL, KEPT TIGHTLY CLOSED WHEN NOT IN USE. STORE AND USE AWAY FROM HEAT, SPARKS, OPEN FLAME OR ANY OTHER IGNITION SOURCE. USE EXPLOSION-PROOF ELECTRICAL (VENTILATING, LIGHTING AND MATERIAL HANDLING) EQUIPMENT. USE NON-SPARKING TOOLS. TAKE PRECAUTIONARY MEASURES AGAINST ELECTROSTATIC DISCHARGES. EMPTY CONTAINERS RETAIN PRODUCT RESIDUE AND CAN BE HAZARDOUS. DO NOT REUSE CONTAINER.

STORAGE:
STORE IN ACCORDANCE WITH LOCAL REGULATIONS. STORE IN A SEGREGATED AND APPROVED AREA. STORE IN ORIGINAL CONTAINER PROTECTED FROM DIRECT SUNLIGHT IN A DRY, COOL AND WELL-VENTILATED AREA, AWAY FROM INCOMPATIBLE MATERIALS (SEE SECTION 10) AND FOOD AND DRINK. ELIMINATE ALL IGNITION SOURCES. SEPARATE FROM OXIDIZING MATERIALS. KEEP CONTAINER TIGHTLY CLOSED AND SEALED UNTIL READY FOR USE. CONTAINERS THAT HAVE BEEN OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE. DO NOT STORE IN UNLABELED CONTAINERS. USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL

CONTAMINATION.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

top

UNITED STATES:

INGREDIENT	EXPOSURE LIMITS
N-HEXANE	OSHA PEL 1989 (UNITED STATES, 3/1989). TWA: 50 PPM 8 HOUR(S). TWA: 180 MG/M3 8 HOUR(S). NIOSH REL (UNITED STATES, 6/2009). TWA: 50 PPM 10 HOUR(S). TWA: 180 MG/M3 10 HOUR(S). ACGIH TLV (UNITED STATES, 2/2010). ABSORBED THROUGH SKIN. TWA: 50 PPM 8 HOUR(S). OSHA PEL (UNITED STATES, 6/2010). TWA: 500 PPM 8 HOUR(S). TWA: 1800 MG/M3 8 HOUR(S).
ISOPROPANOL	ACGIH TLV (UNITED STATES, 2/2010). TWA: 200 PPM 8 HOUR(S). STEL: 400 PPM 15 MINUTE(S). OSHA PEL 1989 (UNITED STATES, 3/1989). TWA: 400 PPM 8 HOUR(S). TWA: 980 MG/M3 8 HOUR(S). STEL: 500 PPM 15 MINUTE(S). STEL: 1225 MG/M3 15 MINUTE(S). NIOSH REL (UNITED STATES, 6/2009). TWA: 400 PPM 10 HOUR(S). TWA: 980 MG/M3 10 HOUR(S). STEL: 500 PPM 15 MINUTE(S).

STEL: 500 PPM 15 MINUTE(S).
STEL: 1225 MG/M3 15 MINUTE(S).

OSHA PEL (UNITED STATES, 6/2010).
TWA: 400 PPM 8 HOUR(S).
TWA: 980 MG/M3 8 HOUR(S).

CANADA:

OCCUPATIONAL EXPOSURE LIMITS:

INGREDIENT	LIST NAME	TWA (8 HOURS)			STEL (15 MINS)		
		PPM	MG/M3	OTHER	PPM	MG/M3	OTHER
N-HEXANE	US ACGIH 2/2010	50					
	AB 4/2009	50	176				
	BC 10/2009	20					
	ON 7/2010	50					
	QC 6/2008	50	176				
ISOPROPANOL	US ACGIH 2/2010	200			400		
	AB 4/2009	200	492		400	984	
	BC 10/2009	200			400		
	ON 7/2010	200			400		
	QC 6/2008	400	983		500	1230	

INGREDIENT	LIST NAME	CEILING			NOTATIONS
		PPM	MG/M3	OTHER	
N-HEXANE	US ACGIH 2/2010				[1]
	AB 4/2009				[1]
	BC 10/2009				[1]
	ON 7/2010				[1]
	QC 6/2008				[1]
ISOPROPANOL	US ACGIH 2/2010				
	AB 4/2009				
	BC 10/2009				
	ON 7/2010				
	QC 6/2008				

[1] ABSORBED THROUGH SKIN.

MEXICO:

INGREDIENT	EXPOSURE LIMITS
N-HEXANE	NOM-010-STPS (MEXICO, 9/2000). LMPE-PPT: 50 PPM 8 HOUR(S). LMPE-PPT: 176 MG/M3 8 HOUR(S).
ISOPROPANOL	NOM-010-STPS (MEXICO, 9/2000). LMPE-PPT: 400 PPM 8 HOUR(S). LMPE-PPT: 980 MG/M3 8 HOUR(S). LMPE-CT: 1225 MG/M3 15 MINUTE(S). LMPE-CT: 500 PPM 15 MINUTE(S).

CONSULT LOCAL AUTHORITIES FOR ACCEPTABLE EXPOSURE LIMITS.

RECOMMENDED MONITORING PROCEDURES:
IF THIS PRODUCT CONTAINS INGREDIENTS WITH EXPOSURE LIMITS, PERSONAL, WORKPLACE ATMOSPHERE OR BIOLOGICAL MONITORING MAY BE REQUIRED TO DETERMINE THE EFFECTIVENESS OF THE VENTILATION OR OTHER CONTROL MEASURES AND/OR THE

THE EFFECTIVENESS OF THE VENTILATION OR OTHER CONTROL MEASURES AND/OR THE NECESSITY TO USE RESPIRATORY PROTECTIVE EQUIPMENT.

ENGINEERING MEASURES:
USE ONLY WITH ADEQUATE VENTILATION. USE PROCESS ENCLOSURES, LOCAL EXHAUST VENTILATION OR OTHER ENGINEERING CONTROLS TO KEEP WORKER EXPOSURE TO AIRBORNE CONTAMINANTS BELOW ANY RECOMMENDED OR STATUTORY LIMITS. THE ENGINEERING CONTROLS ALSO NEED TO KEEP GAS, VAPOR OR DUST CONCENTRATIONS BELOW ANY LOWER EXPLOSIVE LIMITS. USE EXPLOSION-PROOF VENTILATION EQUIPMENT.

HYGIENE MEASURES:
WASH HANDS, FOREARMS AND FACE THOROUGHLY AFTER HANDLING CHEMICAL PRODUCTS, BEFORE EATING, SMOKING AND USING THE LAVATORY AND AT THE END OF THE WORKING PERIOD. APPROPRIATE TECHNIQUES SHOULD BE USED TO REMOVE POTENTIALLY CONTAMINATED CLOTHING. WASH CONTAMINATED CLOTHING BEFORE REUSING. ENSURE THAT EYEWASH STATIONS AND SAFETY SHOWERS ARE CLOSE TO THE WORKSTATION LOCATION.

PERSONAL PROTECTION:

RESPIRATORY:
USE A PROPERLY FITTED, AIR-PURIFYING OR AIR-FED RESPIRATOR COMPLYING WITH AN APPROVED STANDARD IF A RISK ASSESSMENT INDICATES THIS IS NECESSARY. RESPIRATOR SELECTION MUST BE BASED ON KNOWN OR ANTICIPATED EXPOSURE LEVELS, THE HAZARDS OF THE PRODUCT AND THE SAFE WORKING LIMITS OF THE SELECTED RESPIRATOR.

HANDS:
CHEMICAL-RESISTANT, IMPERVIOUS GLOVES COMPLYING WITH AN APPROVED STANDARD SHOULD BE WORN AT ALL TIMES WHEN HANDLING CHEMICAL PRODUCTS IF A RISK ASSESSMENT INDICATES THIS IS NECESSARY.

EYES:
SAFETY EYEWEAR COMPLYING WITH AN APPROVED STANDARD SHOULD BE USED WHEN A RISK ASSESSMENT INDICATES THIS IS NECESSARY TO AVOID EXPOSURE TO LIQUID SPLASHES, MISTS OR DUSTS.

SKIN:
PERSONAL PROTECTIVE EQUIPMENT FOR THE BODY SHOULD BE SELECTED BASED ON THE TASK BEING PERFORMED AND THE RISKS INVOLVED AND SHOULD BE APPROVED BY A SPECIALIST BEFORE HANDLING THIS PRODUCT.

ENVIRONMENTAL EXPOSURE CONTROLS:
EMISSIONS FROM VENTILATION OR WORK PROCESS EQUIPMENT SHOULD BE CHECKED TO ENSURE THEY COMPLY WITH THE REQUIREMENTS OF ENVIRONMENTAL PROTECTION LEGISLATION.

9. PHYSICAL AND CHEMICAL PROPERTIES

top

PHYSICAL STATE: LIQUID. [PASTE.]

FLASH POINT:
CLOSED CUP: <-17.778 DEG. C (<-0.0004 DEG. F) [SETAFLASH.]

FLAMMABLE LIMITS:
LOWER: 1.2%
UPPER: 7.5%

COLOR: BEIGE.

ODOR: ALCOHOL-LIKE.

BOILING/CONDENSATION POINT: 61.667 DEG. C (143 DEG. F)

RELATIVE DENSITY: 1.19

VOLATILITY: 25.9% (W/W)

VOC (LESS WATER, LESS EXEMPT SOLVENTS): 310 G/L

SOLUBILITY:
INSOLUBLE IN THE FOLLOWING MATERIALS: COLD WATER AND HOT WATER.

10. STABILITY AND REACTIVITY

top

CHEMICAL STABILITY: THE PRODUCT IS STABLE.

POSSIBILITY OF HAZARDOUS REACTIONS:
UNDER NORMAL CONDITIONS OF STORAGE AND USE, HAZARDOUS REACTIONS WILL NOT OCCUR.

HAZARDOUS POLYMERIZATION:
UNDER NORMAL CONDITIONS OF STORAGE AND USE, HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

CONDITIONS TO AVOID:
AVOID ALL POSSIBLE SOURCES OF IGNITION (SPARK OR FLAME). DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE CONTAINERS TO HEAT OR SOURCES OF IGNITION.

MATERIALS TO AVOID:
HIGHLY REACTIVE OR INCOMPATIBLE WITH THE FOLLOWING MATERIALS:
OXIDIZING MATERIALS

INCOMPATIBILITY:
REACTIVE OR INCOMPATIBLE WITH THE FOLLOWING MATERIALS:
OXIDIZING MATERIALS, ACIDS AND ALKALIS.

HAZARDOUS DECOMPOSITION PRODUCTS:
UNDER NORMAL CONDITIONS OF STORAGE AND USE, HAZARDOUS DECOMPOSITION PRODUCTS SHOULD NOT BE PRODUCED.

CONDITIONS OF REACTIVITY:
HIGHLY FLAMMABLE IN THE PRESENCE OF THE FOLLOWING MATERIALS OR CONDITIONS:
OPEN FLAMES, SPARKS AND STATIC DISCHARGE.

11. TOXICOLOGICAL INFORMATION

top

UNITED STATES:

ACUTE TOXICITY:

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	DOSE	EXPOSURE
N-HEXANE	LD50 ORAL	RAT	29700 MG/KG	
	LD50 ORAL	RAT	15840 MG/KG	
	LDLO INTRAPERITONEAL	RAT	9100 MG/KG	
	TDLO ORAL	RAT	20000 MG/KG	

	LC50 INHALATION VAPOR	RAT	627000 MG/M3	3 MINUTES
	LC50 INHALATION GAS.	RAT	48000 PPM	4 HOURS
ISOPROPANOL	LD50 DERMAL	RABBIT	12800 MG/KG	
	LD50 INTRAPERITONEAL	RAT	2735 MG/KG	
	LD50 INTRAVENOUS	RAT	1088 MG/KG	
	LD50 ORAL	RAT	5045 MG/KG	
	LD50 ORAL	RAT	5000 MG/KG	
	TDLO INTRAPERITONEAL	RAT	800 MG/KG	
	LC50 INHALATION GAS.	RAT	16000 PPM	8 HOURS

CHRONIC TOXICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

IRRITATION/CORROSION:

CONCLUSION/SUMMARY:

SKIN:
PROLONGED OR REPEATED CONTACT CAN DEFAT THE SKIN AND LEAD TO IRRITATION, CRACKING AND/OR DERMATITIS.

EYES: SEVERELY IRRITATING TO EYES.

RESPIRATORY:
HIGH VAPOR CONCENTRATIONS CAN CAUSE HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS.

SENSITIZER: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

CARCINOGENICITY:

CLASSIFICATION:

PRODUCT/INGREDIENT NAME	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ISOPROPANOL	A4	3				

MUTAGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

TERATOGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

REPRODUCTIVE TOXICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

CANADA:

ACUTE TOXICITY:

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	DOSE	EXPOSURE
N-HEXANE	LD50 ORAL	RAT	29700 MG/KG	
	LD50 ORAL	RAT	15840 MG/KG	
	LDLO INTRAPERITONEAL	RAT	9100 MG/KG	
	TDLO ORAL	RAT	20000 MG/KG	
	LC50 INHALATION VAPOR	RAT	627000 MG/M3	3 MINUTES
	LC50 INHALATION GAS.	RAT	48000 PPM	4 HOURS
ISOPROPANOL	LD50 DERMAL	RABBIT	12800 MG/KG	
	LD50 INTRAPERITONEAL	RAT	2735 MG/KG	
	LD50 INTRAVENOUS	RAT	1088 MG/KG	
	LD50 ORAL	RAT	5045 MG/KG	
	LD50 ORAL	RAT	5000 MG/KG	

	TDLO INTRAPERITONEAL	RAT	800 MG/KG	
	LC50 INHALATION GAS.	RAT	16000 PPM	8 HOURS

CHRONIC TOXICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

IRRITATION/CORROSION:

CONCLUSION/SUMMARY:

SKIN:
PROLONGED OR REPEATED CONTACT CAN DEFAT THE SKIN AND LEAD TO IRRITATION, CRACKING AND/OR DERMATITIS.

EYES: SEVERELY IRRITATING TO EYES.

RESPIRATORY:
HIGH VAPOR CONCENTRATIONS CAN CAUSE HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS.

SENSITIZER: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

CARCINOGENICITY:

CLASSIFICATION:

PRODUCT/INGREDIENT NAME	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ISOPROPANOL	A4	3				

MUTAGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

TERATOGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

REPRODUCTIVE TOXICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

MEXICO:

ACUTE TOXICITY:

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	DOSE	EXPOSURE
N-HEXANE	LD50 ORAL	RAT	29700 MG/KG	
	LD50 ORAL	RAT	15840 MG/KG	
	LDLO INTRAPERITONEAL	RAT	9100 MG/KG	
	TDLO ORAL	RAT	20000 MG/KG	
	LC50 INHALATION VAPOR	RAT	627000 MG/M3	3 MINUTES
	LC50 INHALATION GAS.	RAT	48000 PPM	4 HOURS
ISOPROPANOL	LD50 DERMAL	RABBIT	12800 MG/KG	
	LD50 INTRAPERITONEAL	RAT	2735 MG/KG	
	LD50 INTRAVENOUS	RAT	1088 MG/KG	
	LD50 ORAL	RAT	5045 MG/KG	
	LD50 ORAL	RAT	5000 MG/KG	
	TDLO INTRAPERITONEAL	RAT	800 MG/KG	
	LC50 INHALATION GAS.	RAT	16000 PPM	8 HOURS

CHRONIC TOXICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

IRRITATION/CORROSION:

CONCLUSION/SUMMARY:

SKIN:
PROLONGED OR REPEATED CONTACT CAN DEFAT THE SKIN AND LEAD TO IRRITATION, CRACKING AND/OR DERMATITIS.

EYES: SEVERELY IRRITATING TO EYES.

RESPIRATORY:
HIGH VAPOR CONCENTRATIONS CAN CAUSE HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS.

SENSITIZER: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

CARCINOGENICITY:

CLASSIFICATION:

PRODUCT/INGREDIENT NAME	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ISOPROPANOL	A4	3				

MUTAGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

TERATOGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

REPRODUCTIVE TOXICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

12. ECOLOGICAL INFORMATION

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ENVIRONMENTAL EFFECTS: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

UNITED STATES:

AQUATIC ECOTOXICITY:

PRODUCT/INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
N-HEXANE		ACUTE LC50: 113000 (MICRO)G/L FRESH WATER	FISH - MOZAMBIQUE TILAPIA - TILAPIA MOSSAMBICA - 99 MM - 10 G	96 HOURS
		ACUTE LC50: 2500 TO 2980 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 20.4 MM - 0.123 G	96 HOURS
ISOPROPANOL		ACUTE LC50: 11130000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - JUVENILE (FLEDGLING, HATCHLING, WEANLING) - 4 TO 8 WEEKS - 1.1 TO 3.1 CM	96 HOURS
		ACUTE LC50: 10400000 TO 10600000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 29 DAYS - 20 MM - 0.103 G	96 HOURS
		ACUTE LC50:	FISH - FATHEAD MINNOW	96 HOURS

ACUTE LC50: 9640000 TO 10000000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 20.6 MM - 0.117 G	96 HOURS
ACUTE LC50: 6550000 TO 7450000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 17.4 MM - 0.082 G	96 HOURS
ACUTE LC50: 4200000 (MICRO)G/L FRESH WATER	FISH - HARLEQUINFISH, RED RASBORA - RASBORA HETEROMORPHA - 1 TO 3 CM	96 HOURS
ACUTE LC50: >1400000 (MICRO)G/L	FISH - WESTERN MOSQUITOFISH - GAMBUSIA AFFINIS - 20 TO 30 MM	96 HOURS
ACUTE LC50: 1400000 TO 1950000 (MICRO)G/L MARINE WATER	CRUSTACEANS - COMMON SHRIMP, SAND SHRIMP - CRANGON CRANGON	48 HOURS

BIODEGRADABILITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

CANADA:

AQUATIC ECOTOXICITY:

PRODUCT/INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
N-HEXANE		ACUTE LC50: 113000 (MICRO)G/L FRESH WATER	FISH - MOZAMBIQUE TILAPIA - TILAPIA MOSSAMBICA - 99 MM - 10 G	96 HOURS
		ACUTE LC50: 2500 TO 2980 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 20.4 MM - 0.123 G	96 HOURS
ISOPROPANOL		ACUTE LC50: 11130000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - JUVENILE (FLEDGLING, HATCHLING, WEANLING) - 4 TO 8 WEEKS - 1.1 TO 3.1 CM	96 HOURS
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		ACUTE LC50: 9640000 TO 10000000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 20.6 MM - 0.117 G	96 HOURS

ACUTE LC50: 6550000 TO 7450000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 17.4 MM - 0.082 G	96 HOURS
ACUTE LC50: 4200000 (MICRO)G/L FRESH WATER	FISH - HARLEQUINFISH, RED RASBORA - RASBORA HETEROMORPHA - 1 TO 3 CM	96 HOURS
ACUTE LC50: >1400000 (MICRO)G/L	FISH - WESTERN MOSQUITOFISH - GAMBUSIA AFFINIS - 20 TO 30 MM	96 HOURS
ACUTE LC50: 1400000 TO 1950000 (MICRO)G/L MARINE WATER	CRUSTACEANS - COMMON SHRIMP, SAND SHRIMP - CRANGON CRANGON	48 HOURS

BIODEGRADABILITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

MEXICO:

AQUATIC ECOTOXICITY:

PRODUCT/INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
N-HEXANE		ACUTE LC50: 113000 (MICRO)G/L FRESH WATER	FISH - MOZAMBIQUE TILAPIA - TILAPIA MOSSAMBICA - 99 MM - 10 G	96 HOURS
		ACUTE LC50: 2500 TO 2980 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 20.4 MM - 0.123 G	96 HOURS
ISOPROPANOL		ACUTE LC50: 11130000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - JUVENILE (FLEDGLING, HATCHLING, WEANLING) - 4 TO 8 WEEKS - 1.1 TO 3.1 CM	96 HOURS
		ACUTE LC50: 10400000 TO 10600000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 29 DAYS - 20 MM - 0.103 G	96 HOURS
		ACUTE LC50: 9640000 TO 10000000 (MICRO)G/L FRESH WATER	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 20.6 MM - 0.117 G	96 HOURS
		ACUTE LC50: 6550000 TO 7450000 (MICRO)G/L	FISH - FATHEAD MINNOW - PIMEPHALES PROMELAS - 31 DAYS - 17.4 MM - 0.082 G	96 HOURS

FRESH WATER		
ACUTE LC50: 4200000 (MICRO)G/L FRESH WATER	FISH - HARLEQUINFISH, RED RASBORA - RASBORA HETEROMORPHA - 1 TO 3 CM	96 HOURS
ACUTE LC50: 1400000 TO 1950000 (MICRO)G/L MARINE WATER	CRUSTACEANS - COMMON SHRIMP, SAND SHRIMP - CRANGON CRANGON	48 HOURS
ACUTE LC50: >1400000 (MICRO)G/L	FISH - WESTERN MOSQUITOFISH - GAMBUSIA AFFINIS - 20 TO 30 MM	96 HOURS

BIODEGRADABILITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

OTHER ADVERSE EFFECTS: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

13. DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL:
THE GENERATION OF WASTE SHOULD BE AVOIDED OR MINIMIZED WHEREVER POSSIBLE. EMPTY CONTAINERS OR LINERS MAY RETAIN SOME PRODUCT RESIDUES. THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY. DISPOSE OF SURPLUS AND NON-RECYCLABLE PRODUCTS VIA A LICENSED WASTE DISPOSAL CONTRACTOR. DISPOSAL OF THIS PRODUCT, SOLUTIONS AND ANY BY-PRODUCTS SHOULD AT ALL TIMES COMPLY WITH THE REQUIREMENTS OF ENVIRONMENTAL PROTECTION AND WASTE DISPOSAL LEGISLATION AND ANY REGIONAL LOCAL AUTHORITY REQUIREMENTS. AVOID DISPERSAL OF SPILLED MATERIAL AND RUNOFF AND CONTACT WITH SOIL, WATERWAYS, DRAINS AND SEWERS.

DISPOSAL SHOULD BE IN ACCORDANCE WITH APPLICABLE REGIONAL, NATIONAL AND LOCAL LAWS AND REGULATIONS.

REFER TO SECTION 7: HANDLING AND STORAGE AND SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION FOR ADDITIONAL HANDLING INFORMATION AND PROTECTION OF EMPLOYEES.

14. TRANSPORT INFORMATION

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REGULATORY INFORMATION	UN NUMBER	PROPER SHIPPING NAME	CLASSES
DOT CLASSIFICATION	1133	CONSUMER COMMODITY	ORM-D
TDG CLASSIFICATION	1133	ADHESIVES, CONTAINING FLAMMABLE LIQUID	3
MEXICO CLASSIFICATION	1133	ADHESIVES, CONTAINING FLAMMABLE LIQUID	3
ADR/RID CLASS	1133	ADHESIVES, CONTAINING FLAMMABLE LIQUID	3
IMDG CLASS	1133	ADHESIVES, CONTAINING FLAMMABLE LIQUID	3

IATA-DGR CLASS	ID8000	CONSUMER COMMODITY	9

REGULATORY INFORMATION	PG*	LABEL	ADDITIONAL INFORMATION
DOT CLASSIFICATION	III		
TDG CLASSIFICATION	III	CLASS 3, FLAMMABLE LIQUIDS	REMARKS: LIMITED QUANTITY
MEXICO CLASSIFICATION	III	CLASS 3, FLAMMABLE LIQUIDS	
ADR/RID CLASS	III	CLASS 3, FLAMMABLE LIQUIDS	
IMDG CLASS	III	CLASS 3 - FLAMMABLE LIQUIDS	REMARKS: LIMITED QUANTITY
IATA-DGR CLASS	III	CLASS 9, CLASS/DIVISION 9 PACKING GROUP III	

PG*: PACKING GROUP

15. REGULATORY INFORMATION

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UNITED STATES:

HCS CLASSIFICATION:
FLAMMABLE LIQUID
TOXIC MATERIAL
IRRITATING MATERIAL

U.S. FEDERAL REGULATIONS:

TSCA 8(A) IUR:
STYRENE POLYMER WITH 1,3-BUTADIENE;
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC

UNITED STATES INVENTORY (TSCA 8B): ALL COMPONENTS ARE LISTED OR EXEMPTED.

SARA 302/304/311/312 EXTREMELY HAZARDOUS SUBSTANCES:
NO PRODUCTS WERE FOUND.

SARA 302/304 EMERGENCY PLANNING AND NOTIFICATION: NO PRODUCTS WERE FOUND.

SARA 302/304/311/312 HAZARDOUS CHEMICALS:
N-HEXANE; ISOPROPANOL; STYRENE POLYMER WITH 1,3-BUTADIENE

SARA 311/312 MSDS DISTRIBUTION - CHEMICAL INVENTORY - HAZARD IDENTIFICATION:
TITEBOND PANEL & FOAMBOARD ADHESIVE:
FIRE HAZARD, IMMEDIATE (ACUTE) HEALTH HAZARD, DELAYED (CHRONIC) HEALTH HAZARD

DEA LIST I CHEMICALS (PRECURSOR CHEMICALS): NOT LISTED

DEA LIST II CHEMICALS (ESSENTIAL CHEMICALS): NOT LISTED

SARA 313:

PRODUCT NAME	CAS NUMBER	CONCENTRATION

FORM R - REPORTING REQUIREMENTS:

N-HEXANE	110-54-3	25 - 50
ISOPROPANOL	67-63-0	1 - 5

SUPPLIER NOTIFICATION:

N-HEXANE	110-54-3	25 - 50
ISOPROPANOL	67-63-0	1 - 5

SARA 313 NOTIFICATIONS MUST NOT BE DETACHED FROM THE MSDS AND ANY COPYING AND REDISTRIBUTION OF THE MSDS SHALL INCLUDE COPYING AND REDISTRIBUTION OF THE NOTICE ATTACHED TO COPIES OF THE MSDS SUBSEQUENTLY REDISTRIBUTED.

STATE REGULATIONS:

MASSACHUSETTS SPILL: NONE OF THE COMPONENTS ARE LISTED.

MASSACHUSETTS SUBSTANCES:
THE FOLLOWING COMPONENTS ARE LISTED: HEXANE; ISOPROPYL ALCOHOL

NEW JERSEY HAZARDOUS SUBSTANCES:
THE FOLLOWING COMPONENTS ARE LISTED:
N-HEXANE; HEXANE; ISOPROPYL ALCOHOL; 2-PROPANOL

NEW JERSEY SPILL: NONE OF THE COMPONENTS ARE LISTED.

NEW JERSEY TOXIC CATASTROPHE PREVENTION ACT:
NONE OF THE COMPONENTS ARE LISTED.

PENNSYLVANIA RTK HAZARDOUS SUBSTANCES:
THE FOLLOWING COMPONENTS ARE LISTED: HEXANE; 2-PROPANOL

CANADA:

WHMIS (CANADA):
CLASS B-2: FLAMMABLE LIQUID
CLASS D-2A: MATERIAL CAUSING OTHER TOXIC EFFECTS (VERY TOXIC).
CLASS D-2B: MATERIAL CAUSING OTHER TOXIC EFFECTS (TOXIC).

CANADIAN LISTS:

CEPA TOXIC SUBSTANCES: NONE OF THE COMPONENTS ARE LISTED.

CANADIAN ARET: NONE OF THE COMPONENTS ARE LISTED.

CANADIAN NPRI:
THE FOLLOWING COMPONENTS ARE LISTED: N-HEXANE; ISOPROPYL ALCOHOL

ALBERTA DESIGNATED SUBSTANCES: NONE OF THE COMPONENTS ARE LISTED.

ONTARIO DESIGNATED SUBSTANCES: NONE OF THE COMPONENTS ARE LISTED.

QUEBEC DESIGNATED SUBSTANCES: NONE OF THE COMPONENTS ARE LISTED.

CANADA INVENTORY: NOT DETERMINED.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF

THE CONTROLLED PRODUCTS REGULATIONS AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CONTROLLED PRODUCTS REGULATIONS.

MEXICO:
CLASSIFICATION:

NFPA:
HEALTH 2
FLAMMABILITY 3
REACTIVITY 0
SPECIAL

INTERNATIONAL REGULATIONS:

INTERNATIONAL LISTS:
AUSTRALIA INVENTORY (AICS): NOT DETERMINED.
CHINA INVENTORY (IECSC): NOT DETERMINED.
JAPAN INVENTORY: NOT DETERMINED.
KOREA INVENTORY: NOT DETERMINED.
NEW ZEALAND INVENTORY OF CHEMICALS (NZIOC): NOT DETERMINED.
PHILIPPINES INVENTORY (PICCS): NOT DETERMINED.

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE I CHEMICALS: NOT LISTED

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE II CHEMICALS: NOT LISTED

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE III CHEMICALS: NOT LISTED

16. OTHER INFORMATION

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LABEL REQUIREMENTS:
EXTREMELY FLAMMABLE LIQUID AND VAPOR. FLAMMABLE. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF INHALED. CAUSES EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.

HAZARDOUS MATERIAL INFORMATION SYSTEM (U.S.A.):
HEALTH 2
FLAMMABILITY 3
PHYSICAL HAZARDS 0

CAUTION:
HMIS(R*) RATINGS ARE BASED ON A 0-4 RATING SCALE, WITH 0 REPRESENTING MINIMAL HAZARDS OR RISKS, AND 4 REPRESENTING SIGNIFICANT HAZARDS OR RISKS ALTHOUGH HMIS(R*) RATINGS ARE NOT REQUIRED ON MSDSS UNDER 29 CFR 1910.1200, THE PREPARER MAY CHOOSE TO PROVIDE THEM. HMIS(R*) RATINGS ARE TO BE USED WITH A FULLY IMPLEMENTED HMIS(R*) PROGRAM. HMIS(R*) IS A REGISTERED MARK OF THE NATIONAL PAINT & COATINGS ASSOCIATION (NPCA). HMIS(R*) MATERIALS MAY BE PURCHASED EXCLUSIVELY FROM J. J. KELLER (800) 327-6868.

THE CUSTOMER IS RESPONSIBLE FOR DETERMINING THE PPE CODE FOR THIS MATERIAL.

DATE OF PRINTING: 12/16/2010.

DATE OF ISSUE: 10/19/2010.

DATE OF PREVIOUS ISSUE: 7/21/2009.

VERSION: 1

| INDICATES INFORMATION THAT HAS CHANGED FROM PREVIOUSLY ISSUED VERSION.

NOTICE TO READER:
TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED HEREIN IS ACCURATE. HOWEVER, NEITHER THE ABOVE-NAMED SUPPLIER, NOR ANY OF ITS SUBSIDIARIES, ASSUMES ANY LIABILITY WHATSOEVER FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN.

FINAL DETERMINATION OF SUITABILITY OF ANY MATERIAL IS THE SOLE RESPONSIBILITY OF THE USER. ALL MATERIALS MAY PRESENT UNKNOWN HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

ITEM: 2C258 - Flux Brazing 1 Lb Can

PICK_REQ: 1056554772 **MATERIAL SAFETY DATA SHEET (MSDS)** MSDS: A9954

This MSDS should be attached or kept with the respective product with which it is associated.

##

MATERIAL SAFETY DATA SHEET - A9954

Associated Grainger Item: 2C258 - Flux Brazing 1 Lb Can

MATERIAL SAFETY DATA SHEET

(ESSENTIALLY SIMILAR TO U.S. DEPARTMENT OF LABOR SUGGESTED FORM FOR HAZARD COMMUNICATION COMPLIANCE)

FORM NO.: MSDS #21-D

DATE REVISED: 03/20/2006

NFPA RATINGS:
HEALTH 1
FIRE 0
REACTIVITY 0
SPECIAL

HAZARD RATINGS:
4 = EXTREME
3 = HIGH
2 = MODERATE
1 = SLIGHT
0 = INSIGNIFICANT

I. PRODUCT IDENTIFICATION

PRODUCT TYPE:
ALL-STATE GENERAL PURPOSE BRAZE WELDING AND WELDING FLUXES
(ALL-STATE NO. 5 RED FLUX FOR TORCH BRAZING ON CAST IRON)

MANUFACTURER: THE ESAB GROUP, INC

ADDRESS:
801 WILSON AVENUE
HANOVER, PA 17331

TELEPHONE NO.:
1-717-637-8911
1-800-933-7070

EMERGENCY NO. (CHEMTREC):
1-717-637-8911
1-800-424-9300

WEBSITE: WWW.ESABNA.COM

PRODUCT DESCRIPTION:
AGGLOMERATED POWDERS FOR USE AS FLUXING AGENTS IN ARC OR TORCH BRAZING, BRAZE WELDING AND OTHER WELDING PROCESSES.

NOMINAL CHEMICAL COMPOSITION (WT. %):

ALL-STATE PRODUCT TRADE NAME	BORAX	BORIC ACID	IRON OXIDE
ALL-STATE NO. 1 BLUE FLUX (1)	30-39 60-69		
ALL-STATE NO. 5 RED FLUX (1)	28-35	52-55	<10
ALL-STATE BRAZO FLUX (1)	10-30	60-90	

(1) SEE NOTE IN SECTION VI

II. HAZARDOUS INGREDIENTS

IMPORTANT:
THIS SECTION COVERS THE MATERIALS FROM WHICH THIS PRODUCT IS MANUFACTURED. THE FUMES AND GASES PRODUCED DURING NORMAL USE OF THESE PRODUCTS ARE COVERED IN SECTION V. THE TERM HAZARDOUS SHOULD BE INTERPRETED AS A TERM REQUIRED AND DEFINED BY LAWS, STATUTES, OR REGULATIONS, AND DOES NOT NECESSARILY IMPLY THE EXISTENCE OF ANY HAZARD WHEN THE PRODUCTS ARE USED AS DIRECTED BY THE ESAB GROUP.

MATERIAL	(CAS NO.)	SARA	ACGIH TLV TWA (MG/M3)	OSHA - PEL TWA (MG/M3)	OSHA - PEL STEL (MG/M3)
BORAX	(1330-43-4)		10		
BORIC ACID	(10043-35-3)		10 (B2O3)	5 (B2O3 - RESPIRABLE)	
IRON OXIDE	(1309-37-1)			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

PHYSICAL STATE:
GAS ( )
LIQUID ( )
SOLID (X)

SOLUBILITY IN WATER: MODERATE

SPECIFIC GRAVITY (H2O = 1):
NO. 5 RED FLUX: 1.87

BULK DENSITY (LBS/FT3):
NO. 1 BLUE FLUX: 91
BRAZO FLUX: 91.2

ODOR AND APPEARANCE:
NO. 1 BLUE FLUX: LIGHT BLUE POWDER, ODORLESS.
NO. 5 RED FLUX: RED POWDER, ODORLESS.
BRAZO FLUX: WHITE POWDER, 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 ( )

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

INCOMPATIBILITY (MATERIALS TO AVOID):
ACETIC ANHYDRIDE, ELEMENTAL POTASSIUM AND OTHER REACTIVE METALS SUCH AS ZIRCONIUM METAL.

HAZARDOUS DECOMPOSITION PRODUCTS:
BORON OXIDE FUMES. WELDING FUMES AND GASES CANNOT BE CLASSIFIED SIMPLY. THE COMPOSITION AND QUANTITY OF THE FUMES AND GASES ARE DEPENDENT UPON THE BASE METAL, THE FLUX AND FILLER METAL BEING USED. COATINGS ON THE BASE METAL SUCH AS PAINT, GALVANIZING OR PLATING WILL PRODUCE FUMES AS WELL. OTHER CONDITIONS WHICH INFLUENCE THE COMPOSITION AND QUALITY OF THE FUMES AND GASES TO WHICH WORKERS MAY BE EXPOSED ARE THE NUMBER OF OPERATORS RELATIVE TO THE VOLUME OF THE WORK AREA, THE QUALITY AND AMOUNT OF VENTILATION, THE POSITION OF THE WELDER'S HEAD IN RESPECT TO THE FUME PLUME, AS WELL AS THE PRESENCE OF CONTAMINANTS IN THE ATMOSPHERE SUCH AS HALOGENATED HYDROCARBON VAPORS FROM CLEANING AND DEGREASING ACTIVITIES.

WHEN WELDING, THE COMPOSITION OF THE FUMES AND GASES ARE USUALLY DIFFERENT FROM THE COMPOSITION OF THE INGREDIENTS MENTIONED IN SECTION II. FUME INGREDIENTS OF NORMAL OPERATION INCLUDE THOSE ORIGINATING FROM VOLATILIZATION, REACTION, OR OXIDIZATION OF THE MATERIALS NOTED IN THE ABOVE PARAGRAPH. REASONABLY EXPECTED FUME CONSTITUENTS INCLUDE BORIC OXIDE (CAS NUMBER 1303-86-2) WITH OSHA TWA AND ACGIH TLV LISTINGS OF 10 MG/M3, AND OXIDES OF IRON AND CARBON.

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

ELECTRIC ARC WORKING MAY CREATE ONE OR MORE OF THE FOLLOWING HEALTH OR PHYSICAL HAZARDS. FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH. ELECTRIC SHOCK CAN KILL YOU. ARC RAYS CAN INJURE EYES AND BURN SKIN. NOISE CAN DAMAGE HEARING. AN ADDITIONAL DETAILED DESCRIPTION OF THE HEALTH AND PHYSICAL HAZARDS AND THEIR CONSEQUENCES MAY BE FOUND IN ESAB'S FREE PUBLICATIONS F52-529 "PRECAUTIONS AND SAFE PRACTICES FOR ELECTRIC WELDING AND CUTTING" AND 17982 "STANDARD FOR FIRE PREVENTION DURING WELDING, CUTTING AND OTHER HOT WORK." 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 THIS PRODUCT AND OF THE DECOMPOSITION PRODUCTS IS BY INHALATION. SKIN CONTACT, EYE CONTACT, AND INGESTION ARE POSSIBLE. 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:

INHALATION:
IRRITANT TO RESPIRATORY SYSTEM. SNEEZING AND COUGHING. PRE-EXISTING LUNG DISORDERS MAY BE AGGRAVATED.

EYE CONTACT:
MILD IRRITATION TO EYE SURFACES. EXISTING DISORDERS MAY BE AGGRAVATED.

SKIN CONTACT:
MILD DERMATITIS OR IRRITATION. PRE-EXISTING SKIN DISORDERS MAY BE AGGRAVATED.

INGESTION: NAUSEA, VOMITING AND DIARRHEA.

PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
INDIVIDUALS WITH ALLERGIES OR IMPAIRED RESPIRATORY FUNCTION MAY HAVE SYMPTOMS WORSENED BY EXPOSURE TO WELDING 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

ITEM: 2C258

MSDS: A9954

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. PROLONGED ABSORPTION OF BORIC ACID IN HIGH DOSES MAY CAUSE NAUSEA VOMITING, DIARRHEA WITH DELAYED EFFECTS OF SKIN REDNESS AND PEELING.

EXPOSURE LIMITS FOR THE INGREDIENTS ARE LISTED IN SECTION II. THE ACGIH AND THE 1989 OSHA TWA FOR WELDING FUME IS 5 MG/M3. AT TIMES THE LIMIT FOR A PARTICULAR HAZARDOUS CHEMICAL IS REACHED BEFORE THE LIMIT FOR WELDING FUMES. TLV-TWAS SHOULD BE USED AS A GUIDE IN THE CONTROL OF HEALTH HAZARDS AND NOT AS FIRM LINES BETWEEN SAFE AND EXCESSIVE CONCENTRATIONS. AS NOTED IN SECTION V, THE FUME FROM WELDING AND ALLIED PROCESSES IS A MIXTURE OF MANY COMPONENTS. THEREFORE, A STATUTORY COMPUTATION OF THE EQUIVALENT EXPOSURE IS REQUIRED. THE EQUIVALENT EXPOSURE VALUE FOR THE WELDING AND BRAZING FUME MIXTURE SHALL ALWAYS BE LESS THAN ONE. 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. THRESHOLD LIMIT VALUE FOR THESE PRODUCTS IS 1 MG PER CU METER OF AIR.

EMERGENCY FIRST AID MEASURES:
ALWAYS CONTACT PHYSICIAN OR POISON CONTROL CENTER IN CASE OF MEDICAL EMERGENCY

EYE CONTACT:
FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES TO REMOVE ALL RESIDUE. PROMPTLY SEEK MEDICAL ATTENTION.

SKIN CONTACT:
WASH HANDS WITH SOAP AND WATER TO REMOVE ALL RESIDUE. IF RASH DEVELOPS, CONSULT A PHYSICIAN.

INHALATION:
REMOVE VICTIM TO FRESH AIR. IF FUMES, VAPORS OR DUSTS ARE INHALED, CALL A PHYSICIAN.

INGESTION:
CONTAINS BORIC ACID. CALL A PHYSICIAN OR YOUR POISON CONTROL CENTER. ADVISE OF SECTION II.

CARCINOGENIC ASSESSMENT (NTP ANNUAL REPORT, IARC MONOGRAPHS, OTHER): NONE.

(1) 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 SUBSECTION 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 33135 AND OSHA PUBLICATION 2206 (29 C.F.R. 1910), U.S. GOVERNMENT PRINTING OFFICE, SUPERINTENDENT OF DOCUMENTS, P.O. BOX 371954, PITTSBURGH, PA 15250-7954 FOR MORE DETAIL ON MANY OF THE FOLLOWING:

VENTILATION:
USE ENOUGH VENTILATION, LOCAL EXHAUST AT THE ARC, OR BOTH, TO KEEP THE EXPOSURE WITHIN LEGAL LIMITS. IN THE WORKER'S BREATHING ZONE AND THE GENERAL AREA, THE FUMES AND GASES MUST BE KEPT BELOW THE TLVS AND THE EQUIVALENT EXPOSURE MUST COMPUTE TO LESS THAN ONE. TRAIN THE WELDER TO KEEP HIS HEAD OUT THE FUMES. ADEQUATE VENTILATION SHOULD BE USED WHEN MATERIAL IS IN DUSTY OR MOLTEN STATE.

RESPIRATORY PROTECTION:
USE RESPIRABLE FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN WELDING IN CONFINED SPACES OR WHERE LOCAL EXHAUST OR VENTILATION DOES NOT KEEP EXPOSURE BELOW TLVS.

EYE PROTECTION: CHEMICAL TIGHT SAFETY GOGGLES. DO NOT WEAR CONTACT LENSES.

PROTECTIVE CLOTHING AND EQUIPMENT:
CHEMICAL AND ACID IMPERVIOUS GLOVES. WEAR HEAD, HAND, AND BODY PROTECTION WHICH HELP TO PREVENT INJURY FROM RADIATION, SPARKS AND ELECTRICAL SHOCK. SEE ANSI Z-49.1 FOR ADDITIONAL GUIDELINES. TRAIN THE WELDER NOT TO TOUCH LIVE ELECTRICAL PARTS AND TO INSULATE HIMSELF FROM WORK AND GROUND.

PROCEDURE FOR CLEANUP OF SPILLS OR LEAKS:
CONTAIN SPILL, ABSORB, SWEEP UP. REMOVE TO CHEMICAL SEWER. FLUSH AREA TO CHEMICAL SEWER. AVOID BREATHING DUST.

WASTE DISPOSAL METHODS:
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.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
STORE FLUX AT AMBIENT CONDITIONS. KEEP UNDER EXTREMELY DRY AND CONTROLLED CONDITIONS. WASH THOROUGHLY AFTER HANDLING TO REMOVE ALL RESIDUE.

OTHER PRECAUTIONS AND/OR SPECIAL HAZARDS:
REMOVE AND PROFESSIONALLY CLEAN CONTAMINATED CLOTHING BEFORE REUSE.

THE 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.

THE ESAB GROUP REQUESTS THE USERS OF THESE PRODUCTS TO STUDY THIS MATERIAL SAFETY DATA SHEET (MSDS) AND THE PRODUCT LABELS AND BECOME FULLY AWARE OF THE PRODUCT HAZARDS AND SAFETY INFORMATION. TO PROMOTE THE SAFE USE OF THESE PRODUCTS A USER SHOULD
(1) NOTIFY AND TRAIN ITS EMPLOYEES, AGENTS AND CONTRACTORS CONCERNING 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 AND TRAIN THEIR EMPLOYEES AND CUSTOMERS, FOR THESE PRODUCTS, OF THE SAME PRODUCT HAZARDS AND SAFETY INFORMATION.

PRODUCT IDENTITY:
ALL-STATE GENERAL PURPOSE BRAZE WELDING AND WELDING FLUXES

Carlisle Coatings & Waterproofing Incorporated
900 Hensley Lane, Wylie, TX 75098
Ph.: 972-442-6545, 800-527-7092
Fax: 972-442-0076
www.ccwcompanies.com

CARLISLE Coatings & Waterproofing

Material Safety Data Sheet

Date last revised AUGUST 2008

I. GENERAL INFORMATION

Chemical Name & Synonyms TINT PASTE	Trade Name & Synonyms CCW-201 UNIVERSAL COLOR PACKS
Chemical Family N/A	Formula MIXTURE
Proper DOT Shipping CAULKING COMPOUND	DOT Hazard Classification NONE
Manufacturer Carlisle Coatings & Waterproofing Incorporated	Manufacturer's Phone Number 972-442-6545
Manufacturer's Address 900 Hensley Lane, Wylie, TX 75098	Chemtrec Phone Number 800-424-9300

II. INGREDIENTS

Principal Hazardous Components	Percent	Threshold Limit Value (Units)
DI-N-OCTYL PHTHALATE (CAS # 117-84-0)	< 10	NOT ESTABLISHED
Color packs may contain the following components depending on the color being used:.		
COBALT BLUE (CAS# 1345-16-0) CADMIUM SULFIDE (CAS# 1306-23-6)	9 – 10 2 - 23	5 mg/m^3 (dust) 3.5 mg/m^3 (dust)
BROWN OXIDE (CAS# 1309-37-1) IRON OXIDE (CAS# 1304-37-1)	1 – 36 18 – 40	5 mg/m^3 (dust) 5 mg/m^3 (dust)
TITANIUM DIOXIDE (CAS# 13463-67-7) CARBON BLACK (CAS# 1333-86-4)	45 – 50 9	10 mg/m^3 (dust) 3.5 mg/m^3 (dust)
RAW SIENNA (CAS# 1309-37-1)	2 - 45	5 mg/m^3 (dust)
THIS PRODUCT CONTAINS DI-N-OCTYL PHTHALATE AND MAY ALSO CONTAIN CADMIUM SULFIDE WHICH ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR, PART 372.		HEALTH = 1* FLAMMABILITY = 0 REACTIVITY = 0

III. PHYSICAL DATA

Boiling Point (°F) UNKNOWN	Specific Gravity (H_2O = 1) 1.10 – 1.80
Vapor Pressure (mm Hg.) UNKNOWN	Percent Volatile by Volume (%) N/A
Vapor Density (Air = 1) N/A	Evaporation Rate (= 1) N/A
Solubility in Water INSOLUBLE	pH N/A
Appearance & Odor SMOOTH PASTE – MILD ODOR	

IV. FIRE & EXPLOSION HAZARD DATA

Flash Point (Test Method) > 200° F. T.C.C.	Auto Ignition Temperature UNKNOWN	
Flammable Limits UNKNOWN	LEL N/A	UEL N/A
Extinguishing Media: WATER AND CO_2		
Special Fire Fighting Procedures: WEAR SELF-CONTAINED BREATHING APPARATUS WHEN FIGHTING FIRES INVOLVING CHEMICALS.		
Unusual Fire & Explosion Hazards: NONE KNOWN		

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CARLISLE Coatings & Waterproofing

CCW-201 UNIVERSAL COLOR PACKS

V. HEALTH HAZARD DATA

OSHA Permissible Exposure Limit SEE SECTION II	ACGIH Threshold Limit Value SEE SECTION II
Carcinogen – NTP Program NO	Carcinogen – IARC Program NO

Symptoms of Exposure:
NO KNOWN ILL EFFECTS REPORTED IN THE NORMAL USE OF COMPOUND.

Medical Conditions Aggravated By Exposure:
NONE KNOWN

Primary Route (s) of Entry:
DERMAL AND INHALATION

Emergency First Aid: EYES: FLUSH WITH COPIOUS AMOUNTS OF WATER FOR 15 MINUTES. SKIN: WIPE OFF EXCESS. WASH WITH SOAP AND WATER. INGESTION: OBTAIN IMMEDIATE MEDICAL ATTENTION. INHALATION: REMOVE FROM EXPOSURE AND CALL A PHYSICIAN.

VI. REACTIVITY DATA

Stability		Unstable	Conditions to Avoid
	X	Stable	NONE KNOWN
Incompatibility			Materials to Avoid STRONG OXIDIZING AND REDUCING AGENTS.
Hazardous		May Occur	Conditions to Avoid
Polymerization	X	Will Not Occur	NONE KNOWN

Hazardous Decomposition Products: CARBON DIOXIDE, CARBON MONOXIDE AND POSSIBLE ORGANIC ACIDS

VII. ENVIRONMENTAL PROTECTION PROCEDURES

Spill Response: WIPE UP EXCESS. WASH AREA WITH MINERAL SPIRITS. PLACE SPILLED MATERIAL IN CONTAINERS FOR DISPOSAL.

Waste Disposal Method: DISPOSE IN ACCORDANCE WITH STATE, COUNTY AND FEDERAL ENVIRONMENTAL REGULATIONS.

VIII. SPECIAL PROTECTION INFORMATION

Eye Protection GLASSES OR GOGGLES	Skin Protection RUBBER OR NEOPRENE GLOVES, IF REQUIRED
Respiratory Protection (Specific Type) NONE REQUIRED	Ventilation Recommended GENERAL VENTILATION SHOULD BE ADEQUATE

Other Protection:
BARRIER CREAM FOR SKIN

IX. SPECIAL PRECAUTIONS

Hygienic Practices In Handling & Storage:
NO SPECIAL HANDLING PRECAUTIONS

Precautions For Repair & Maintenance of Contaminated Equipment:
SEE SECTIONS V AND VI

Other Precautions:
WASH HANDS BEFORE EATING OR SMOKING.

KEEP OUT OF REACH OF CHILDREN!!!!!

Carlisle Coatings & Waterproofing Incorporated
900 Hensley Lane, Wylie, TX 75098
Ph.: 972-442-6545, 800-527-7092
Fax: 972-442-0076
www.ccwcompanies.com

MATERIAL SAFETY DATA SHEET

21010
03 00

DATE OF PREPARATION
Apr 18, 2013

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
21010
PRODUCT NAME
TRI-FLOW® Superior Lubricant with PTFE, 21021 22025 26020 29200
MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
Consumer Group - Industrial
Cleveland, OH 44115

Telephone Numbers and Websites

Product Information	www.triflowlubricants.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
**for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)*	

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units		Vapor Pressure
30	64742-47-8	**Heavy Aliphatic Solvent**			
		ACGIH TLV	Not Available		1.53 mm
		OSHA PEL	Not Available		
51	64742-52-5	**Heavy Naphthenic Petroleum Oil**			
		ACGIH TLV	5	mg/m3 as Mist	
		OSHA PEL	5	mg/m3 as Mist	
3	64741-97-5	**Naphthenic Oil**			
		ACGIH TLV	5	mg/m3 as Mist	
		OSHA PEL	Not Available		
4	64742-65-0	**Heavy Paraffinic Oil**			
		ACGIH TLV	5	mg/m3 as Mist	
		OSHA PEL	5	mg/m3 as Mist	
3	34590-94-8	**2-Methoxymethylethoxypropanol**			
		ACGIH TLV	100	ppm (Skin)	0.4 mm
		ACGIH TLV	150	ppm (Skin) STEL	
		OSHA PEL	100	ppm (Skin)	
		OSHA PEL	150	ppm (Skin) STEL	
3	628-63-7	**Amyl Acetate**			
		ACGIH TLV	100	PPM	4 mm
		OSHA PEL	100	PPM	

SECTION 3 — HAZARDS IDENTIFICATION

HMIS Codes

Health	2
Flammability	2
Reactivity	0

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.
EFFECTS OF OVEREXPOSURE
EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
SIGNS AND SYMPTOMS OF OVEREXPOSURE
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None generally recognized.
CANCER INFORMATION
For complete discussion of toxicology data refer to Section 11.

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN: Wash affected area thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.
INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
194 °F PMCC	0.6	14.0	Combustible, Flash above 99 and below 200 °F

EXTINGUISHING MEDIA
Carbon Dioxide, Dry Chemical, Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS
Closed containers may explode when exposed to extreme heat.
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.
SPECIAL FIRE FIGHTING PROCEDURES
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 containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Remove all sources of ignition. Ventilate the area.
Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE

STORAGE CATEGORY
DOL Storage Class IIIA
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Contents are COMBUSTIBLE. Keep away from heat and open flame.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE
Use only with adequate ventilation.
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.
Wash hands after using.
VENTILATION
Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 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 2.
PROTECTIVE GLOVES
Wear gloves which are recommended by glove supplier for protection against materials in Section 2.
EYE PROTECTION
Wear safety spectacles with unperforated sideshields.
OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	7.36 lb/gal	881 g/l
SPECIFIC GRAVITY	0.89	
BOILING POINT	288 - 500 °F	142 - 260 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	38%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	Not Available	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

2.59 lb/gal	310 g/l	Less Water and Federally Exempt Solvents
2.59 lb/gal	310 g/l	Emitted VOC

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

CAS No.	Ingredient Name			
64742-47-8	**Heavy Aliphatic Solvent**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64742-52-5	**Heavy Naphthenic Petroleum Oil**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64741-97-5	**Naphthenic Oil**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64742-65-0	**Heavy Paraffinic Oil**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
34590-94-8	**2-Methoxymethylethoxypropanol**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		5135 mg/kg
628-63-7	**Amyl Acetate**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		6500 mg/kg

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

US Ground (DOT)

Not Regulated for Transportation.

Bulk Containers may be Shipped as:

NA1993, COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES, AMYL ACETATES), PG III, (ERG#128)

Canada (TDG)

Not Regulated for Transportation.

IMO

Not Regulated for Transportation.

IATA/ICAO

Not Regulated for Transportation.

SECTION 15 — REGULATORY INFORMATION

SARA 313 *(40 CFR 372.65C)* SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
	Zinc Compound	1	0.1
	Barium Compound	3	0.07

CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical 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.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product 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.

MSDS B8401

ITEM: 4TA89 - Lubricant,Non-Aerosol TRI-FLOW

DELIVERY: 6239711246 HU NUMBER: U233964313

MATERIAL SAFTETY DATA SHEET (MSDS)

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - B8401

Associated Grainger Items
4T

MATERIAL SAFETY DATA SHEET

21010

02 00

DATE OF PREPARATION: DEC 2, 2010

-----SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION -----

PRODUCT NUMBER: 21010

PRODUCT NAME:
TRI-FLOW(TM) SUPERIOR LUBRICANT WITH PTFE, 21021 22025 26020 29200

MANUFACTURER'S NAME:
THE SHERWIN-WILLIAMS COMPANY
CONSUMER GROUP - INDUSTRIAL
CLEVELAND, OH 44115

TELEPHONE NUMBERS AND WEBSITES:
REGULATORY INFORMATION:
(216) 566-2902
WWW.PAINTDOCS.COM

MEDICAL EMERGENCY: (216) 566-2917

TRANSPORTATION EMERGENCY*: (800) 424-9300

*FOR CHEMICAL EMERGENCY ONLY (SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT)

-----SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS -----

% BY WEIGHT	CAS NUMBER	INGREDIENT	UNITS	VAPOR PRESSURE
30	64742-47-8	HEAVY ALIPHATIC SOLVENT ACGIH TLV: NOT AVAILABLE OSHA PEL: NOT AVAILABLE		1.53 MM
51	64742-52-5	HEAVY NAPHTHENIC PETROLEUM OIL ACGIH TLV: 5 MG/M3 AS MIST OSHA PEL: 5 MG/M3 AS MIST		
3	64741-97-5	NAPHTHENIC OIL ACGIH TLV: 5 MG/M3 AS MIST OSHA PEL: NOT AVAILABLE		
4	64742-65-0	HEAVY PARAFFINIC OIL ACGIH TLV: 5 MG/M3 AS MIST OSHA PEL: 5 MG/M3 AS MIST		
3	34590-94-8	2-METHOXYMETHYLETHOXYPROPANOL ACGIH TLV: 100 PPM (SKIN) ACGIH TLV: 150 PPM (SKIN) STEL OSHA PEL: 100 PPM (SKIN) OSHA PEL: 150 PPM (SKIN) STEL		0.4 MM
3	628-63-7	AMYL ACETATE ACGIH TLV: 100 PPM OSHA PEL: 100 PPM		4 MM

-----SECTION 3 - HAZARDS IDENTIFICATION -----

HMIS CODES:
HEALTH 2
FLAMMABILITY 2
REACTIVITY 0

ROUTES OF EXPOSURE:
INHALATION OF VAPOR OR SPRAY MIST.
EYE OR SKIN CONTACT WITH THE PRODUCT, VAPOR OR SPRAY MIST.

EFFECTS OF OVEREXPOSURE:
EYES: IRRITATION.
SKIN: PROLONGED OR REPEATED EXPOSURE MAY CAUSE IRRITATION.
INHALATION: IRRITATION OF THE UPPER RESPIRATORY SYSTEM.

MAY CAUSE NERVOUS SYSTEM DEPRESSION. EXTREME OVEREXPOSURE MAY RESULT IN UNCONSCIOUSNESS AND POSSIBLY DEATH.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:
HEADACHE, DIZZINESS, NAUSEA, AND LOSS OF COORDINATION ARE INDICATIONS OF EXCESSIVE EXPOSURE TO VAPORS OR SPRAY MISTS.

REDNESS AND ITCHING OR BURNING SENSATION MAY INDICATE EYE OR EXCESSIVE SKIN EXPOSURE.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
MAY CAUSE ALLERGIC SKIN REACTION IN SUSCEPTIBLE PERSONS OR SKIN SENSITIZATION.

CANCER INFORMATION:
FOR COMPLETE DISCUSSION OF TOXICOLOGY DATA REFER TO SECTION 11.

-----SECTION 4 - FIRST AID MEASURES -----

EYES:
FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION.

SKIN:
WASH AFFECTED AREA THOROUGHLY WITH SOAP AND WATER.
REMOVE CONTAMINATED CLOTHING AND LAUNDER BEFORE RE-USE.

INHALATION:
IF AFFECTED, REMOVE FROM EXPOSURE. RESTORE BREATHING. KEEP WARM AND QUIET.

INGESTION: DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION IMMEDIATELY.

-----SECTION 5 - FIRE FIGHTING MEASURES -----

FLASH POINT: 150 DEG. F PMCC

LEL: 0.6
UEL: 14.0

FLAMMABILITY CLASSIFICATION:
COMBUSTIBLE, FLASH ABOVE 99 AND BELOW 200 DEG. F

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM

UNUSUAL FIRE AND EXPLOSION HAZARDS:
CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

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.

SPECIAL FIRE FIGHTING PROCEDURES:
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 CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT.

-----SECTION 6 - ACCIDENTAL RELEASE MEASURES -----

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
REMOVE ALL SOURCES OF IGNITION. VENTILATE THE AREA.
REMOVE WITH INERT ABSORBENT.

-----SECTION 7 - HANDLING AND STORAGE -----

STORAGE CATEGORY: DOL STORAGE CLASS IIIA

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
CONTENTS ARE COMBUSTIBLE. KEEP AWAY FROM HEAT AND OPEN FLAME.

CONSULT NFPA CODE. USE APPROVED BONDING AND GROUNDING PROCEDURES.

KEEP CONTAINER CLOSED WHEN NOT IN USE. TRANSFER ONLY TO APPROVED CONTAINERS WITH COMPLETE AND APPROPRIATE LABELING. DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.

-----SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION -----

PRECAUTIONS TO BE TAKEN IN USE:
USE ONLY WITH ADEQUATE VENTILATION.
AVOID CONTACT WITH SKIN AND EYES. AVOID BREATHING VAPOR AND SPRAY MIST.
WASH HANDS AFTER USING.

VENTILATION:
LOCAL EXHAUST PREFERABLE. GENERAL EXHAUST ACCEPTABLE IF THE EXPOSURE TO MATERIALS IN SECTION 2 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 2.

PROTECTIVE GLOVES:
WEAR GLOVES WHICH ARE RECOMMENDED BY GLOVE SUPPLIER FOR PROTECTION AGAINST MATERIALS IN SECTION 2.

EYE PROTECTION: WEAR SAFETY SPECTACLES WITH UNPERFORATED SIDESHIELDS.

OTHER PRECAUTIONS:
INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

-----SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES -----

PRODUCT WEIGHT:
7.36 LB/GAL
881 G/L

SPECIFIC GRAVITY: 0.89

BOILING POINT:
288 - 500 DEG. F
142 - 260 DEG. C

MELTING POINT: NOT AVAILABLE

VOLATILE VOLUME: 38%

EVAPORATION RATE: SLOWER THAN ETHER

VAPOR DENSITY: HEAVIER THAN AIR

SOLUBILITY IN WATER: N.A.

VOLATILE ORGANIC COMPOUNDS (VOC THEORETICAL - AS PACKAGED):

2.59 LB/GAL 310 G/L LESS WATER AND FEDERALLY EXEMPT SOLVENTS
2.59 LB/GAL 310 G/L EMITTED VOC

-----SECTION 10 - STABILITY AND REACTIVITY -----

STABILITY: STABLE

CONDITIONS TO AVOID: NONE KNOWN.

INCOMPATIBILITY: NONE KNOWN.

HAZARDOUS DECOMPOSITION PRODUCTS:
BY FIRE: CARBON DIOXIDE, CARBON MONOXIDE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

-----SECTION 11 - TOXICOLOGICAL INFORMATION -----

CHRONIC HEALTH HAZARDS:
NO INGREDIENT IN THIS PRODUCT IS AN IARC, NTP OR OSHA LISTED CARCINOGEN.

REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OVEREXPOSURE TO SOLVENTS
4TA89

TOXICOLOGY DATA:

CAS NO. INGREDIENT NAME

64742-47-8 HEAVY ALIPHATIC SOLVENT
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

64742-52-5 HEAVY NAPHTHENIC PETROLEUM OIL
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

64741-97-5 NAPHTHENIC OIL
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

64742-65-0 HEAVY PARAFFINIC OIL
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

34590-94-8 2-METHOXYMETHYLETHOXYPROPANOL
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: 5135 MG/KG

628-63-7 AMYL ACETATE
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: 6500 MG/KG

-----SECTION 12 - ECOLOGICAL INFORMATION -----

ECOTOXICOLOGICAL INFORMATION: NO DATA AVAILABLE.

-----SECTION 13 - DISPOSAL CONSIDERATIONS -----

WASTE DISPOSAL METHOD:
WASTE FROM THIS PRODUCT IS NOT HAZARDOUS AS DEFINED UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) 40 CFR 261. INCINERATE IN APPROVED FACILITY. DO NOT INCINERATE CLOSED CONTAINER. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE/PROVINCIAL, AND LOCAL REGULATIONS REGARDING POLLUTION.

-----SECTION 14 - TRANSPORT INFORMATION -----

NO DATA AVAILABLE.

-----SECTION 15 - REGULATORY INFORMATION -----

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION:

CAS NO.	CHEMICAL/COMPOUND	% BY WT	% ELEMENT
	ZINC COMPOUND	1	0.1
	BARIUM COMPOUND	3	0.07

CALIFORNIA PROPOSITION 65:

WARNING:
THIS PRODUCT CONTAINS A CHEMICAL 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.

-----SECTION 16 - OTHER INFORMATION -----

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS (CPR) AND THE MSDS CONTAINS ALL OF THE INFORMATION REQUIRED BY THE CPR.

THE ABOVE INFORMATION PERTAINS TO THIS PRODUCT AS CURRENTLY FORMULATED, AND IS BASED ON THE INFORMATION AVAILABLE AT THIS TIME. ADDITION OF REDUCERS OR OTHER ADDITIVES TO THIS PRODUCT 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.

MSDS B2891

ITEM: 2PB97 - Lubricant,Pin Point TRI-FLOW

DELIVERY: 6239711246

HU NUMBER: U233964313

MATERIAL SAFTETY DATA SHEET (MSDS)

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - B2891

Asso[illegible] Grainger Items
2PB[illegible]

MATERIAL SAFETY DATA SHEET

20000

02 00

-----SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION -----

PRODUCT NUMBER: 20000

PRODUCT NAME: TRI-FLOW(TM) SUPERIOR LUBRICANT WITH PTFE

HMIS CODES:
HEALTH 2
FLAMMABILITY 4
REACTIVITY 0

MANUFACTURER'S NAME:
THE SHERWIN-WILLIAMS COMPANY
CONSUMER GROUP - INDUSTRIAL
CLEVELAND, OH 44115

TELEPHONE NUMBERS AND WEBSITES:
REGULATORY INFORMATION: (216) 566-2902
MEDICAL EMERGENCY: (216) 566-2917
TRANSPORTATION EMERGENCY: (800) 424-9300

WWW.PAINTDOCS.COM

FOR CHEMICAL EMERGENCY ONLY (SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT)

DATE OF PREPARATION: 25-MAR-08

-----SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS -----

% BY WT	CAS NO.	INGREDIENT	UNITS	VAPOR PRESSURE
10	74-98-6	PROPANE ACGIH TLV: 2500 PPM OSHA PEL: 1000 PPM		760 MM
10	106-97-8	BUTANE ACGIH TLV: 800 PPM OSHA PEL: 800 PPM		760 MM
24	[illegible]2-47-8	HEAVY ALIPHATIC SOLVENT ACGIH TLV: NOT AVAILABLE OSHA PEL: NOT AVAILABLE		1.53 MM
41	64742-52-5	HEAVY NAPHTHENIC PETROLEUM OIL ACGIH TLV: 5 MG/M3 AS MIST OSHA PEL: 5 MG/M3 AS MIST		
2	64741-97-5	NAPHTHENIC OIL ACGIH TLV: 5 MG/M3 AS MIST OSHA PEL: NOT AVAILABLE		
3	64742-65-0	HEAVY PARAFFINIC OIL ACGIH TLV: 5 MG/M3 AS MIST OSHA PEL: 5 MG/M3 AS MIST		
2	34590-94-8	2-METHOXYMETHYLETHOXYPROPANOL ACGIH TLV: 100 PPM (SKIN) ACGIH TLV: 150 PPM (SKIN) STEL OSHA PEL: 100 PPM (SKIN) OSHA PEL: 150 PPM (SKIN) STEL		0.4 MM
2	628-63-7	AMYL ACETATE ACGIH TLV: 100 PPM OSHA PEL: 100 PPM		4 MM

-----SECTION 3 - HAZARDS IDENTIFICATION -----

ROUTES OF EXPOSURE:
INHALATION OF VAPOR OR SPRAY MIST.
EYE OR SKIN CONTACT WITH THE PRODUCT, VAPOR OR SPRAY MIST.

EFFECTS OF OVEREXPOSURE:

EYES: IRRITATION.

SKIN: PROLONGED OR REPEATED EXPOSURE MAY CAUSE IRRITATION.

INHALATION:
IRRITATION OF THE UPPER RESPIRATORY SYSTEM.

MAY CAUSE NERVOUS SYSTEM DEPRESSION. EXTREME OVEREXPOSURE MAY RESULT IN UNCONSCIOUSNESS AND POSSIBLY DEATH.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:
HEADACHE, DIZZINESS, NAUSEA, AND LOSS OF COORDINATION ARE INDICATIONS OF EXCE[illegible] EXPOSURE TO VAPORS OR SPRAY MISTS.

REDN[illegible]ND ITCHING OR BURNING SENSATION MAY INDICATE EYE OR EXCESSIVE SKIN EXPOSURE.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NONE GENERALLY RECOGNIZED.

CANCER INFORMATION:
FOR COMPLETE DISCUSSION OF TOXICOLOGY DATA REFER TO SECTION 11.

-----SECTION 4 - FIRST AID MEASURES -----

EYES:
FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES.
GET MEDICAL ATTENTION.

SKIN:
WASH AFFECTED AREA THOROUGHLY WITH SOAP AND WATER.
REMOVE CONTAMINATED CLOTHING AND LAUNDER BEFORE RE-USE.

INHALATION:
IF AFFECTED, REMOVE FROM EXPOSURE. RESTORE BREATHING.
KEEP WARM AND QUIET.

INGESTION:
DO NOT INDUCE VOMITING.
GET MEDICAL ATTENTION IMMEDIATELY.

-----SECTION 5 - FIRE FIGHTING MEASURES -----

FLASH POINT PROPELLANT: <0 F

LEL: 0.6
UEL: 14.0

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM

UNUSUAL FIRE AND EXPLOSION HAZARDS:
CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

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.

SPECIAL FIRE FIGHTING PROCEDURES:
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 CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT.

-----SECTION 6 - ACCIDENTAL RELEASE MEASURES -----

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
REMOVE ALL SOURCES OF IGNITION. VENTILATE THE AREA.
REMOVE WITH INERT ABSORBENT.

-----SECTION 7 - HANDLING AND STORAGE -----

STORAGE CATEGORY: NOT AVAILABLE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
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 TEMPERATURE ABOVE 120F. 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.

-----SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION -----

PRECAUTIONS TO BE TAKEN IN USE:
USE ONLY WITH ADEQUATE VENTILATION.

AVOID CONTACT WITH SKIN AND EYES. AVOID BREATHING VAPOR AND SPRAY MIST. WASH HANDS AFTER USING.

VENTILATION:
LOCAL EXHAUST PREFERABLE. GENERAL EXHAUST ACCEPTABLE IF THE EXPOSURE TO MATERIALS IN SECTION 2 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 2.

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.

OTHER PRECAUTIONS:
INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

-----SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES -----

PRODUCT WEIGHT:
6.50 LB/GAL
778 G/L

SPECIFIC GRAVITY: 0.78

BOILING POINT:
<0 - 500 F
<-18 - 260 C

MELTING POINT: NOT AVAILABLE

VOLATILE VOLUME: 56%

EVAPORATION RATE: FASTER THAN ETHER

VAPOR DENSITY: HEAVIER THAN AIR

SOLUBILITY IN WATER: N.A.

VOLATILE ORGANIC COMPOUNDS (VOC THEORETICAL - AS PACKAGED):
VOLATILE WEIGHT 48.20% LESS WATER AND FEDERALLY EXEMPT SOLVENTS

-----SECTION 10 - STABILITY AND REACTIVITY -----

STABILITY: STABLE

CONDITIONS TO AVOID: NONE KNOWN.

INCOMPATIBILITY: NONE KNOWN.

HAZARDOUS DECOMPOSITION PRODUCTS:
BY FIRE: CARBON DIOXIDE, CARBON MONOXIDE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

-----SECTION 11 - TOXICOLOGICAL INFORMATION -----

CHRONIC HEALTH HAZARDS:
NO INGREDIENT IN THIS PRODUCT IS AN IARC, NTP OR OSHA LISTED CARCINOGEN.
REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OVEREXPOSURE TO SOLVENTS
2PB97

TOXICOLOGY DATA:

CAS NO. INGREDIENT NAME

74-98-6 PROPANE
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

106-97-8 BUTANE
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

64742-47-8 HEAVY ALIPHATIC SOLVENT
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

64742-52-5 HEAVY NAPHTHENIC PETROLEUM OIL
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

647[illegible]5 NAPHTHENIC OIL
L[illegible]AT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

64742-65-0 HEAVY PARAFFINIC OIL
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: NOT AVAILABLE

34590-94-8 2-METHOXYMETHYLETHOXYPROPANOL
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: 5135 MG/KG

628-63-7 AMYL ACETATE
LC50 RAT 4HR: NOT AVAILABLE
LD50 RAT: 6500 MG/KG

-----SECTION 12 - ECOLOGICAL INFORMATION -----

ECOTOXICOLOGICAL INFORMATION: NO DATA AVAILABLE.

-----SECTION 13 - DISPOSAL CONSIDERATIONS -----

WASTE DISPOSAL METHOD:
WASTE FROM THIS PRODUCT MAY BE HAZARDOUS AS DEFINED UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) 40 CFR 261.

WASTE MUST BE TESTED FOR IGNITABILITY TO DETERMINE THE APPLICABLE EPA HAZARDOUS WASTE NUMBERS.

DO NOT INCINERATE. DEPRESSURIZE CONTAINER. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE/PROVINCIAL, AND LOCAL REGULATIONS REGARDING POLLUTION.

-----SECTION 14 - TRANSPORT INFORMATION -----

U.S. GROUND (DOT):
MAY BE CLASSED AS CONSUMER COMMODITY, ORM-D
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

CANADA (TDG):
MAY BE CLASSED AS CONSUMER COMMODITY, ORM-D
UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, (ERG#126)

IMO:
MAY BE SHIPPED AS LIMITED QUANTITY
UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, EMS F-D, S-U

-----SECTION 15 - REGULATORY INFORMATION -----

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION:

CAS NO.	CHEMICAL/COMPOUND	% BY WT	% ELEMENT
	BARIUM COMPOUND	2	0.06

CALIFORNIA PROPOSITION 65:

WARNING:
THIS PRODUCT CONTAINS A CHEMICAL 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.

-----SECTION 16 - OTHER INFORMATION -----

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS (CPR) AND THE MSDS CONTAINS ALL OF THE INFORMATION REQUIRED BY THE CPR.

THE ABOVE INFORMATION PERTAINS TO THIS PRODUCT AS CURRENTLY FORMULATED, AND IS BASED ON THE INFORMATION AVAILABLE AT THIS TIME. ADDITION OF REDUCERS OR OTHER ADDITIVES TO THIS PRODUCT 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.

MATERIAL SAFETY DATA SHEET

TSP TRISODIUM PHOSPHATE

1. Product and Company Identification

Product Name : TSP
Product Code : 620N
Recommended Use: Cleaner

Company Identification:
SAVOGRAN
259 LENOX STREET
PO BOX 130
NORWOOD, MA 02062-0130
Information Phone: 781-762-5400
Emergency Phone: 508-395-0680
Website Address: www.savogran.com

Synonyms: 10621,10622,10623,11625

2. Hazards Identification

ential Health Effects:

Eye:
Eye contact can cause severe irritation, redness, tearing, blurred vision and may cause transient injury to cornea.

Skin:
Prolonged and/or repeated contact may cause irritation and/or dermatitis. Contact with skin causes irritation and positive burns, especially if the skin is wet or moist.

Ingestion:
May cause irritation, burns to mouth and esophagus,Aspiration of the swallowed or vomited product can cause severe pulmonary complications.

Inhalation:
Inhalation of dust can cause nasal and respiratory irritation.

Chronic Overexposure Information:
NO DATA
Teratology and Reproduction Information:
NO DATA
Aggravation of Pre-Existing Conditions:
Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

Label Hazard Statement:
WARNING; Harmful if swallowed. Eye and skin irritant. May cause burns.
OSHA Hazard Communication Standard:
This product is defined as hazardous by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

3. Composition/Information on Ingredients

Component	CAS#	% by Wt.
TRISODIUM PHOSPHATE DODECAHYDRATE EXPOSURE GUIDELINES NOT LISTED	10101-89-0	75% - 80%
SODIUM SESQUICARBONATE EXPOSURE GUIDELINES NOT LISTED	533-96-0	20% - 25%

4. First Aid Measures

Eyes:
Flood with plenty of water with eye lids held open for at least 15 minutes and t medical attention promptly.

Skin:
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion:
Do NOT induce vomiting. If conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation:
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention.

Note to Physicians:
Treat symptomatically. No specific antidote available.

5. Fire Fighting Measures

Flammable Properties:
None

Hazardous Combustion Products:
Oxides of sodium and oxides of phosphorus.

inguishing Media:
t combustible. Use extinguishing method suitable for surrounding fire.

Firefighting Procedures:
Solutions in water are moderately to strong alkaline. Wear full protective

clothing.

6. Accidental Release Measures

Small Spill:
Wipe or scrape up any material. Wash area thoroughly with detergent and water; ventilate adequately with good fresh air movement at floor level.

Large Spill:
Wipe or scrape up any material. Wash area thoroughly with detergent and water; ventilate adequately with good fresh air movement at floor level.

Environmental Precautions:
Do not release into sewers or waterways.

Methods/Materials for Containment and Cleaning Up:
Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

Handling and Storage

Handling:
Avoid direct or prolonged contact with skin and eyes. Avoid breathing dusts. Do not ingest.

Storage:
Store in an area that is cool and dry. Moisture can cause caking.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits: See Section 3

Engineering Controls:
When a potential for excessive exposure exits, use local ventilation at the point of generation.

Personal Protective Equipment:

Respiratory Protection:
Wear NIOSH/MSHA approved dust respirator, if dust is formed.

Skin Protection:
se dust proof gloves.

Eye Protection:
Use dust proof goggles if dust is irritating eyes.

9. Physical and Chemical Properties

Boiling Point: NA
Melting Point: NO DATA
Freezing Point: NO DATA
Vapor Pressure: NA
Vapor Density: NA
Solubility in Water: MODERATE
Evaporation Rate: NA
Flash Point: NA Method: NO DATA
Lower explosive limit: NO DATA
Upper explosive limit: NO DATA
Autoignition Temperature: NO DATA
Specific Gravity: 1.035
pH: 11-12
Odor: None
Appearance:: White crystalline solid

10. Stability and Reactivity

Chemical Stability (Conditions to Avoid): Stable

Incompatibility:
Solutions in water are highly alkaline and may produce hydrogen gas when in contact with aluminum. Will react with acids to form carbon dioxide.

Hazardous Decomposition Products:
Oxides of sodium and oxides of phosphorus.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Acute:
This product has not been tested as a whole.

Subchronic:
This product has not been tested as a whole.

Chronic/Carcinogenicity:
Not listed by ACGIH, IARC, NIOSH, NTP or OSHA

Routes of Exposure:
Inhalation, Ingestion

12. Ecological Information

Environmental Fate: While the alkalinity of this material is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.

13. Disposal Considerations

Waste Disposal Method:
Small quantities may be deposited in general trash and residue flushed down drain with water. Large spills must be disposed of in accordance with local state and federal regulations.

14. Transport Information

Land Transport (DOT):
Not Regulated

15. Regulatory Information

U.S. Federal Regulations:
TSCA: The intentional ingredients of this product are listed.
OSHA: The intentional ingredients of this product are listed.
CERCLA: SARA Hazard Category: None
Section 313: Not Listed
Reportable Quantity: Product Component (Trisodium Phosphate Dodecahydrate-5000lb)

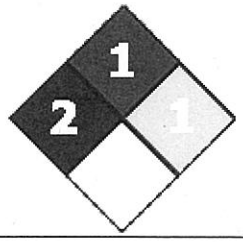
State Regulations:
NO DATA
Volatile Organic Compounds: None

16. Other Information:

NFPA Ratings: 2,0,0

Manufacturer Disclaimer:
Judgement of potential hazards of this product is based on information available about individual components listed under section 3 - Ingredients. Direct testing of mixture has not been done. Information given herein is believed to be accurate and is given in good faith. However, no warranty either expressed or implied is made. It is strongly suggested that users confirm in advance of need that the information is current and applicable to their situations.

Material Safety Data Sheet

NFPA	HMIS	PPE	Transport Symbol
	Health Hazard 2* Fire Hazard 1 Reactivity 1		

Issuing Date 27-Feb-2007 **Revision Date** **Revision Number** 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name
Touch 'n Foam Professional Quick Cure Polyurethane Insulating Sealant
Touch 'n Seal Quick Cure Polyurethane Foam Sealant RX (cylinder)
Touch 'n Seal Quick Cure Polyurethane Foam Sealant HY (cylinder)
Touch 'n Seal Mine Block Mortar

Recommended Use
Insulation

Supplier Address
Convenience Products, division of Clayton Corp.
866 Horan Drive
Fenton, MO 63026-2416 USA
TEL: (636) 349-5855

Emergency Telephone Number
Chemtrec 1-800-424-9300
(703) 527-3887 outside US

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Contents under pressure.
May be harmful if swallowed, inhaled, or absorbed through skin
May cause sensitization by skin contact
May cause allergic respiratory reaction.
Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.
Vapors may be irritating to eyes, nose, throat, and lungs.
May cause drowsiness and dizziness.

Appearance Pale Amber **Physical State** Aerosol Liquid **Odor** Faint hydrocarbon

Potential Health Effects

Principle Routes of Exposure
Inhalation, Skin contact, Eye contact.

Acute Toxicity

Eyes
Irritating to eyes. Risk of serious damage to eyes.

Skin
Harmful in contact with skin. Will bond to skin. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Inhalation
Harmful by inhalation. Irritating to respiratory system. May cause allergic respiratory reaction. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Inhalation of vapors in high concentration may cause shortness of breath (lung edema). May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion May be harmful if swallowed. May cause additional affects as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Product may cure in the gastrointestinal tract and form an obstruction. May cause adverse cardiac effects, blood disturbances, and metabolic acidosis.

Chronic Effects Repeated or prolonged exposure may cause central nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Aggravated Medical Conditions Allergies. Skin disorders. Respiratory disorders. Central nervous system. Preexisting eye disorders. Kidney disorders. Liver disorders.

Interactions with Other Chemicals Irritants. Sensitizers. Epoxies. Use of alcoholic beverages may enhance toxic effects.

Environmental Hazard See Section 12 for additional Ecological information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Chlorodifluoromethane	75-45-6	10-30
Flame Retardant	Proprietary	5-10
Polymethylene polyphenylene isocyanate	9016-87-9	10-30
Methylene bisphenyl isocyanate (MDI)	101-68-8	10-30
Polyol blend	Proprietary	10-30
Methylenediphenyl diisocyanate	26447-40-5	1-5

4. FIRST AID MEASURES

General Advice Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.

Eye Contact In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Remove and wash contaminated clothing before re-use. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

Inhalation Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

Ingestion Call a physician or Poison Control Center immediately. Do not induce vomiting. Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person.

Notes to Physician May cause sensitization of susceptible persons. Treat symptomatically. Keep victim warm and quiet.

Protection of First-aiders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Flammable Properties Containers may explode when heated.

Flash Point None

Suitable Extinguishing Media — Dry chemical, CO_2, water spray or regular foam. Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal.

Unsuitable Extinguishing Media — Do not scatter spilled material with high pressure water streams.

Explosion Data
- **Sensitivity to mechanical impact** — None
- **Sensitivity to static discharge** — None

Specific Hazards Arising from the Chemical
Ruptured cylinders may rocket.

Protective Equipment and Precautions for Firefighters
Wear self-contained breathing apparatus and protective suit.

NFPA	**Health Hazard** 2	**Flammability** 1	**Stability** 1	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 2*	**Flammability** 1	**Stability** 1	**Personal Precautions** -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions — Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Methods for Containment — If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate. Dike to collect large liquid spills.

Methods for Cleaning Up — Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Do not direct water at spill or source of leak.

Other Information — Ventilate the area.

7. HANDLING AND STORAGE

Handling — Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Use only in area provided with appropriate exhaust ventilation. Ensure adequate ventilation. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can.

Storage — Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep at temperatures below 48.8 °C / 120 °F.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Chlorodifluoromethane	TWA: 1000 ppm	TWA: 1000 ppm TWA: 3500 mg/m^3	
Methylene bisphenyl isocyanate (MDI)	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m^3	75 mg/m^3

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures	Showers Eyewash stations Ventilation systems
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles.
Skin and Body protection	Lightweight protective clothing. Impervious gloves.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	When using, do not eat, drink or smoke. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pale Amber	**Odor**	Faint hydrocarbon
Odor Threshold	No information available	**Physical State**	Aerosol Liquid
pH	No information available		
Flash Point	None	**Autoignition Temperature**	Not applicable
Decomposition temperature	No data available	**Boiling Point/Range**	-41°C / -42°F
Melting Point/Range	No data available		
Flammability Limits in Air	No data available	**Explosion Limits**	No data available
Specific Gravity	1.2	**Water Solubility**	Not Compatible
Solubility	Compatible.	**Evaporation Rate**	No data available
Vapor Pressure	No data available	**Vapor Density**	No data available
VOC Content	Not applicable	**EPA VOC (g/l)**	0
Partition Coefficient (n-octanol/water)	No data available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition. Temperatures above 48.8 °C / 120 °F.
Incompatible Products	Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Hydrogen cyanide.
Hazardous Polymerization	Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information	Product does not present an acute toxicity hazard based on known or supplied information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Chlorodifluoromethane			220000 ppm (Rat) 4 h
Flame Retardant	1850 mg/kg (Rat)	2000 mg/kg (Rat) 23700 mg/kg (Rabbit)	5.22 mg/L (Rat) 4 h
Polymethylene polyphenylene isocyanate	49 g/kg (Rat)	9400 mg/kg (Rabbit)	490 mg/m^3 (Rat) 4 h
Methylene bisphenyl isocyanate (MDI)	9200 mg/kg (Rat)		
Polyol blend	64 mL/kg (Rat)	20 mL/kg (Rabbit)	
Methylenediphenyl diisocyanate		6200 mg/kg (Rabbit)	0.369 mg/L (Rat) 4 h

Subchronic Toxicity (28 days)

Chronic Toxicity

Chronic Toxicity Repeated or prolonged exposure may cause central nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Carcinogenicity There are no known carcinogenic chemicals in this product.

Mutagenicity

Reproductive Toxicity This product does not contain any known or suspected reproductive hazards

Target Organ Effects Central nervous system (CNS), Eyes, Respiratory system, Central Vascular System (CVS), Kidney, Liver, spleen.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

12. ECOLOGICAL INFORMATION

Ecotoxicity
Ecotoxicity effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Flame Retardant	EC50 > 10 mg/L 72 h			EC50 3.9 - 5.5 mg/L 48 h
Methylenediphenyl diisocyanate	EC50 = 3230 mg/L 96 h			EC50 > 1000 mg/L 24 h

Chemical Name	Log Pow
Chlorodifluoromethane	1.08

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method This material, as supplied, is not a hazardous waste according to state and federal regulations (40 CFR 261)

Contaminated Packaging Dispose of in accordance with local regulations

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Compressed Gases, N.O.S. (chlorodifluoromethane)
Hazard Class 2.2 UN 1956
Description Compressed Gases, N.O.S. (chlorodifluoromethane)

TDG

Proper Shipping Name Compressed Gases, N.O.S. (chlorodifluoromethane)

14. TRANSPORT INFORMATION

Hazard Class	2.2
UN-No	UN1956
Description	Compressed Gases, N.O.S. (chlorodifluoromethane),2.2,UN1956

MEX

Proper Shipping Name	Compressed Gases, N.O.S. (chlorodifluoromethane)
Hazard Class	2.2
UN-No	UN1956
Description	UN1956 Compressed Gases, N.O.S. (chlorodifluoromethane),2.2,

ICAO

UN-No	UN1956
Proper Shipping Name	Compressed Gases, N.O.S. (chlorodifluoromethane)
Hazard Class	2.2
Description	Compressed Gases, N.O.S. (chlorodifluoromethane), UN1956

IATA

UN-No	UN1956
Proper Shipping Name	Compressed Gases, N.O.S. (chlorodifluoromethane), non-flammable
Hazard Class	2.2
ERG Code	2L
Description	UN1956, Compressed Gases, N.O.S. (chlorodifluoromethane), non-flammable,2.2

IMDG/IMO

Proper Shipping Name	Compressed Gases, N.O.S. (chlorodifluoromethane)
Hazard Class	2
UN-No	UN1956
EmS No.	F-D, S-U
Description	UN1956, Compressed Gases, N.O.S. (chlorodifluoromethane),2

RID

Proper Shipping Name	Compressed Gases, N.O.S. (chlorodifluoromethane)
Hazard Class	2
UN-No	UN1956
Classification Code	5A
Description	UN1956 Compressed Gases, N.O.S. (chlorodifluoromethane),2,,RID
ADR/RID-Labels	2

ADR

Proper Shipping Name	Compressed Gases, N.O.S. (chlorodifluoromethane)
Hazard Class	2
UN-No	UN1956
Classification Code	5A
ADR/RID-Labels	2

ADN

Proper Shipping Name	Compressed Gases, N.O.S. (chlorodifluoromethane)
Hazard Class	2
Classification Code	5A
Special Provisions	63, 190, 191, 277, 913
Description	UN1956 Compressed Gases, N.O.S. (chlorodifluoromethane),2
Hazard Labels	2
Limited Quantity	See SP277

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
CHINA	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Chlorodifluoromethane	75-45-6	10-30	1.0
Polymethylene polyphenylene isocyanate	9016-87-9	10-30	1.0
Methylene bisphenyl isocyanate (MDI)	101-68-8	10-30	1.0
Methylenediphenyl diisocyanate	26447-40-5	1-5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Methylene bisphenyl isocyanate (MDI)	5000 lb	

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methylene bisphenyl isocyanate (MDI)	X	X	X	X	X
Chlorodifluoromethane	X	X	X		X

International Regulations

Mexico - Grade

The exposure limits values for 101-68-8 are listed under two synonyms:
Diphenylmethane diisocyanate - 0.02 ppm TWA; 0.2 mg/m^3 TWA
Methylene bisphenyl isocyanate - 0.005 ppm TWA; 0.051 mg/m^3 TWA

Chemical Name	Carcinogen Status	Exposure Limits
Methylene bisphenyl isocyanate (MDI)		Mexico: TWA= 0.2 mg/m^3 Mexico: TWA= 0.02 ppm Mexico: TWA= 0.005 ppm Mexico: TWA= 0.051 mg/m^3
Chlorodifluoromethane		Mexico: TWA= 3500 mg/m^3 Mexico: TWA= 1000 ppm Mexico: STEL= 1250 ppm Mexico: STEL= 4375 mg/m^3

Canada

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 Hazard Class
A Compressed gases

Chemical Name	NPRI
Methylene bisphenyl isocyanate (MDI)	X
Chlorodifluoromethane	X

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Issuing Date 27-Feb-2007

Revision Date

Revision Note No information available

Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS

Corrosion Technologies Corporation
P. O. Box 551625
Dallas, Texas 75355-1625
(972) 271-7361 Fax: (972) 278-9721

AEROSOL

Corrosion X®
M.S.D.S.

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT INFORMATION

Name:	Corrosion X (AEROSOL)
Description:	Corrosion Inhibitor / Moisture Displacer / E.P. Lubricant
Use:	Corrosion Inhibitor / Penetrant / Lubricant For Marine environments / For Ferrous, Non-ferrous and dissimilar metal surfaces / wherever there is excessive moisture
MSDS Number:	1009-CT
Appearance:	Dark amber liquid
Emergency Telephone:	(800) 638-7361 (Or consult local poison control center)
Product Information:	(972) 271-7361
Effective Date:	04/05/07
Supercedes Date:	05/08/03

SECTION 2: COMPOSITION

The precise composition of this mixture is proprietary information. A complete disclosure will be provided to a physician or nurse in the event of a medical emergency.

SECTION 3: HAZARDOUS INGREDIENTS

	OSHA PEL	% Wt.	CAS#
Base Stock:	5 mg/m^3 (oil mist)	64-70	72623-85-9
Hydrocarbon Solvent:	100 ppm (vapor)	5-10	64742-47-8
Propellant:(Hydrocarbon A108)	Not determined	15	

SECTION 4: CHEMICAL CHARACTERISTICS

% Non-Volatiles (by weight):	>80%
Volatile Organic Compound:	253g/L
Boiling Point:	>400 degrees F. (without propellant)
Vapor Pressure (mm Hg @ 38° C):	1 mm Hg. (without propellant)
Vapor Density: (Air = 1):	>5
Melting Point:	Not Applicable
Solubility in Water:	Slightly emulsifiable
Evaporation Rate (Butyl Acetate = 1):	<.01 (without propellant)
Specific Gravity typ. (Water = 1):	0.871

SECTION 5: EMERGENCY & FIRST AID PROCEDURES

Skin:	Remove excess by wiping and follow by washing with soap and water until there is no odor.
Eyes:	Flush with copious quantities of water (15 minutes). Lift Eyelids and flush inside. Seek Physician if eyes become inflamed.
Inhalation:	Evacuate to fresh air. Apply CPR if required. If resuscitation is required, assessment by a Physician is mandatory.
Ingestion:	DO NOT INDUCE VOMITING. If vomiting occurs, take care to prevent aspiration. Give ½ pint of milk to drink. Seek aid of a physician. Note to Physician: Consult standard literature re: Hydrocarbon Poisoning.

SECTION 6: HEALTH EFFECTS SUMMARY

Primary Route(s) of Exposure:	Eyes-YES Skin-NO Inhalation-YES Ingestion-YES
Eye Contact:	Essentially non-irritating, however vapors and/or mists may cause mild irritation. Severity of reaction depends upon duration of exposure and first aid procedures administered. Over exposure may cause eyes to water.
Skin Contact:	Non-irritating. **LD50 absorption for skin is >5000 mg/kg (rat, dermal). Prolonged or repeated contact with has not been a cause of defatting or dermatitis in normal day to day handling of material. Effects of over exposure may be dry, chapped skin. **Based on toxicity of Petroleum Distillate.
Inhalation*:	Non-toxic, *LC50 = 5000 ppm (rat, inhalation). Prolonged exposure may cause mild irritation to nose, throat or upper respiratory tract. If over-exposure occurs – may cause dizziness or headaches or nausea. *Based on toxicity of components
Ingestion**:	Practically non- toxic **LD50 >5000 mg/kg. (rat, oral) May be harmful or fatal if large amounts are swallowed. May cause mild irritation of mouth, throat or esophagus. Can cause nausea, vomiting or gastrointestinal upset. May cause diarrhea **Based on toxicity of Petroleum Distillate.
Carcinogenicity:	Non-carcinogenic as listed by: ACGIH, IARC MONOGRAPHS, or OSHA. (Based on toxicity reports of component parts).

SECTION 7: REACTIVITY DATA

Product Stability:	Stable
Incompatibility	Oxidizing Materials such as Liquid or Compressed Oxygen, Peroxides or Chlorine.
Hazardous Decomposition:	Burning produces normal by-products of petroleum combustion including Carbon Monoxide.
Hazardous Polymerization:	Will not occur.

SECTION 8: FIRE & EXPLOSION HAZARDOUS INFORMATION

Flash Point:	>270 degrees F. (Method COC) (without propellant)
Flammable Limits:	Solvent Component LEL: 0.7 UEL: 4.8
Extinguishing Media:	C02, Dry Chemical, Foam, Water Spray.
Fire Fighting Procedures:	Use full protective and self-contained breathing apparatus. Cover with an extinguishing agent. Do NOT spray with water using a direct stream into the burning liquid as this may spread the fire. Use a water spray or mist to cool the fire.
Explosion Hazards:	Aerosol containers may explode when heated above 120F.
Fire Hazard Identification:	NFPA STD. 704 Health – 1 Flammability – 4 (propellant) Reactivity – 0

SECTION 9: SAFETY PRECAUTIONS FOR SAFE HANDLING

Steps to be taken in case of a spill:	Eliminate sources of ignition. Stop or reduce flow by means of a dyke or barricade. Absorb small spills using dry clay or a commercial absorbent. Collect residue into suitable container for proper disposal. Material may be washed into floor drains equipped with an oil interceptor.
Waste disposal method:	Dispose of in an approved landfill site or incinerate at a licensed waste reclaiming facility. Liquid waste may be removed by means of a licensed reclaimer under used oil classification. Be sure to follow all Local, State, & Federal Requirements.

SECTION 10: CONTROL MEASURES

Ventilation:	Provide sufficient ventilation by general or mechanical means to ensure that exposure levels are kept below combustible limits.
Respiratory Protection:	None normally needed unless atomizing in enclosed or confined spaces. Use approved organic mist vapor respirator.
Eye Protection:	None normally required unless operator is using high pressure spraying equipment and splashing may be likely to occur. Use approved face mask or goggles.
Protective Gloves:	None needed
Protective Clothing:	None needed
Personal Hygiene:	Wash face and hands with soap and water after use. Especially before eating or smoking or using the restroom facilities. Launder soiled clothing and shoes / boots with detergent. Apply mild hand cream if hands become dry or chapped.

SECTION 11: LABEL & TRANSPORTATION INFORMATION

Dot Shipping Name:	Consumer Commodity
DOT identification Number:	N/A

SECTION 12: REGULATORY INFORMATION

SARA TITLE III INFORMATION:

Section 313 – Toxic Chemicals:	This product does not contain any chemicals which are listed as a carcinogen and in concentrations greater than 0.1% of the mixture pursuant to Section 313 of *Sara Title III*.
Section 302-Extremely Hazardous Substances:	Pursuant to Section 302 of *SARA TITLE III*, this product does not contain an extremely hazardous substance in concentrations greater than 1%.
Material Information System (WHMIS)	This product is not known to contain greater than 1.0% of any chemical substance which is considered Extremely Hazardous.

SECTION 13: USERS RESPONSIBILITY

A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions – in addition to those described herein – are required. Any health hazard and safety information contained here in should be passed on to your customers or employees, as the case may be.

SECTION 14: DISCLAIMER OF LIABILITY

The 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 of results and assume no liability for damage incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical and application of such products is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the sole responsibility of the user to comply with all applicable Federal, State and Local Laws and Regulations. Any questions with regards to information contained herein should be referred to: Corrosion Technologies Corp. (972) 271-7361.

MATERIAL SAFETY DATA SHEET

This Stuff Works, Inc. (TSW)

This Stuff Works, Inc.
P.O. Box 2510
Livermore, California 94551

Daytime Phone: 800-447-2334
Emergency: Chem-Tel 800-255-3924
Date Compiled: April 23, 2010

SECTION 1: PRODUCT IDENTIFICATION

Product name: **TSW4 ACRYLI-MASTER (Semi-Gloss)**
Synonym/Chemical name/Common name: Protective coating
DOT hazard class: Not classified as hazardous by DOT
Proper shipping name: Compound, cleaning, liquid

SECTION 2: INGREDIENT INFORMATION

Hazardous Ingredients	Wgt %	Toxicity Data
Ethylene glycol butyl ether CAS# 111-76-2	TRADE SECRET	TLV=121 mg/m^3 (skin)

This product contains no chemical at a level which poses a significant risk as defined by California Proposition 65.

This product contains no toxic chemical, above its de minimis concentration, subject to reporting requirements of Title III SARA, section 313 EPCRA (40 CFR 372).

SECTION 3: PHYSICAL CHARACTERISTICS

Specific Gravity (H_2O=1): 1.2
Vapor pressure: 17.2 (water)
Vapor density (Air=1): No vapors are produced
Percentage volatile by weight: 74.0
Solubility in water: Miscible
pH (Undiluted): 9.0 to 10.0
Evaporation rate (H_2O=1): 1
Freezing point: 32°F
Boiling point: 212°F
Appearance and odor: White, translucent liquid with bland odor

SECTION 4: FIRE AND EXPLOSION HAZARDS

Flash point: Nonflammable
Flash point test method: N/A
Flammability limits: N/A
Extinguishing media: Treat primary fire
Special fire fighting procedures: None
Unusual fire or explosive hazards: None

SECTION 5: REACTIVITY DATA/CONDITIONS TO AVOID

Stability: Stable
Incompatibilities (Conditions to avoid): None are known
Hazardous decomposition products: None
Hazardous polymerization will not occur.
Conditions to avoid: None

SECTION 6: HEALTH HAZARDS/FIRST AID

Primary routes of entry: None
Signs and symptoms: Product is irritating to eyes.
First aid procedures: For eye contact flush with large amounts of water. If irritation persists, contact a physician.
Use of this product causes no known chronic health effects.

SECTION 7: PERSONAL PROTECTION RECOMMENDATIONS

Respiratory protection: None
Ventilation: Use with adequate ventilation
Protective gloves: Rubber gloves are recommended for prolonged or repeated contact
Eye protection: Guard against splashing into eyes

SECTION 8: STORAGE/SPILL/SPECIAL HANDLING INFORMATION

Steps to be taken in case of spill: Wet material is slippery. Spilled material will dry hard and will be difficult to remove. Remove with rags, mops, or by flushing with water.
Waste disposal: Follow all local, state, and federal waste disposal regulations.
Special storage or handling precautions: Do not expose to freezing temperatures.

N/D=Not determined N/A=Not applicable

This Material Safety Data Sheet is written and provided in good faith for the sole purpose of providing information for the safe use and handling of this product. It is compiled from technical data believed to be current and correct. It should not be taken as a warranty or representation for which This Stuff Works, Inc. assumes any legal responsibility. The buyer assumes all responsibilities of using and handling the product in accordance with local, state and federal regulations.