ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hart Crowser - Portland, OR
Leon Lahiere
Five Centerpointe Dr, Ste 240

Lake Oswego, OR 97035

Quality Assurance Report
Level II

L347487

June 04, 2008

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
trans-1,2-Dichloroethene	mg/l	.05	0.0498	99.7	67-129	WG364159

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
trans-1,3-Dichloropropene	mg/l	.05	0.0559	112.	66-137	WG364159
Trichloroethene	mg/l	.05	0.0529	106.	74-126	WG364159
Trichlorofluoromethane	mg/l	.05	0.0498	99.6	54-156	WG364159
Vinyl chloride	mg/l	.05	0.0524	105.	55-153	WG364159
Xylenes, Total	mg/l	.15	0.152	101.	75-128	WG364159
Gasoline Range Organics-NWTPH	mg/l	5.5	5.71	104.	70-124	WG364190
1,1,1,2-Tetrachloroethane	mg/l	.05	0.0527	105.	75-134	WG364286
1,1,1-Trichloroethane	mg/l	.05	0.0513	103.	67-137	WG364286
1,1,2,2-Tetrachloroethane	mg/l	.05	0.0425	84.9	72-128	WG364286
1,1,2-Trichloroethane	mg/l	.05	0.0440	87.9	79-123	WG364286
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	.05	0.0481	96.3	51-149	WG364286
1,1-Dichloroethane	mg/l	.05	0.0485	97.0	67-133	WG364286
1,1-Dichloroethene	mg/l	.05	0.0599	120.	60-130	WG364286
1,1-Dichloropropene	mg/l	.05	0.0449	89.8	68-132	WG364286
1,2,3-Trichlorobenzene	mg/l	.05	0.0448	89.6	63-138	WG364286
1,2,3-Trichloropropane	mg/l	.05	0.0424	84.9	68-130	WG364286
1,2,3-Trimethylbenzene	mg/l	.05	0.0438	87.6	70-127	WG364286
1,2,4-Trichlorobenzene	mg/l	.05	0.0469	93.7	65-137	WG364286
1,2,4-Trimethylbenzene	mg/l	.05	0.0437	87.5	72-135	WG364286
1,2-Dibromo-3-Chloropropane	mg/l	.05	0.0389	77.7	55-134	WG364286
1,2-Dibromoethane	mg/l	.05	0.0446	89.1	75-126	WG364286
1,2-Dichlorobenzene	mg/l	.05	0.0441	88.1	75-122	WG364286
1,2-Dichloroethane	mg/l	.05	0.0477	95.4	63-137	WG364286
1,2-Dichloropropane	mg/l	.05	0.0445	88.9	74-122	WG364286
1,3,5-Trimethylbenzene	mg/l	.05	0.0437	87.4	73-134	WG364286
1,3-Dichlorobenzene	mg/l	.05	0.0417	83.3	73-131	WG364286
1,3-Dichloropropane	mg/l	.05	0.0437	87.5	77-119	WG364286
1,4-Dichlorobenzene	mg/l	.05	0.0411	82.3	70-121	WG364286
2,2-Dichloropropane	mg/l	.05	0.0576	115.	46-151	WG364286
2-Butanone (MEK)	mg/l	.25	0.220	88.2	53-132	WG364286
2-Chloroethyl vinyl ether	mg/l	.25	0.235	93.8	0-171	WG364286
2-Chlorotoluene	mg/l	.05	0.0414	82.9	74-128	WG364286
4-Chlorotoluene	mg/l	.05	0.0425	85.0	74-130	WG364286
4-Methyl-2-pentanone (MIBK)	mg/l	.25	0.229	91.6	60-142	WG364286
Acetone	mg/l	.25	0.205	81.9	48-134	WG364286
Acrolein	mg/l	.25	0.239	95.8	6-182	WG364286
Acrylonitrile	mg/l	.25	0.217	86.9	60-140	WG364286
Benzene	mg/l	.05	0.0448	89.7	67-126	WG364286
Bromobenzene	mg/l	.05	0.0429	85.7	76-123	WG364286
Bromodichloromethane	mg/l	.05	0.0503	101.	68-133	WG364286
Bromoform	mg/l	.05	0.0449	89.7	60-139	WG364286
Bromomethane	mg/l	.05	0.0553	111.	45-175	WG364286
Carbon tetrachloride	mg/l	.05	0.0534	107.	64-141	WG364286
Chlorobenzene	mg/l	.05	0.0425	85.0	77-125	WG364286
Chlorodibromomethane	mg/l	.05	0.0545	109.	73-138	WG364286
Chloroethane	mg/l	.05	0.0547	109.	49-155	WG364286
Chloroform	mg/l	.05	0.0438	87.6	66-126	WG364286
Chloromethane	mg/l	.05	0.0492	98.3	45-152	WG364286
cis-1,2-Dichloroethene	mg/l	.05	0.0446	89.3	72-128	WG364286
cis-1,3-Dichloropropene	mg/l	.05	0.0509	102.	73-131	WG364286
Di-isopropyl ether	mg/l	.05	0.0451	90.2	63-139	WG364286
Dibromomethane	mg/l	.05	0.0480	96.1	73-125	WG364286
Dichlorodifluoromethane	mg/l	.05	0.0444	88.7	39-189	WG364286
Ethylbenzene	mg/l	.05	0.0431	86.3	76-129	WG364286
Hexachlorobutadiene	mg/l	.05	0.0506	101.	67-135	WG364286
Isopropylbenzene	mg/l	.05	0.0457	91.4	73-132	WG364286
Methyl tert-butyl ether	mg/l	.05	0.0430	85.9	51-142	WG364286

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Quality Assurance Report
Level II

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June 04, 2008

Methylene Chloride	mg/l	.05	0.0444	88.9	64-125	WG364286

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
n-Butylbenzene	mg/l	.05	0.0457	91.3	63-142	WG364286
n-Propylbenzene	mg/l	.05	0.0422	84.4	71-132	WG364286
Naphthalene	mg/l	.05	0.0481	96.2	56-145	WG364286
p-Isopropyltoluene	mg/l	.05	0.0444	88.8	68-138	WG364286
sec-Butylbenzene	mg/l	.05	0.0442	88.4	70-135	WG364286
Styrene	mg/l	.05	0.0442	88.3	78-130	WG364286
tert-Butylbenzene	mg/l	.05	0.0437	87.5	72-134	WG364286
Tetrachloroethene	mg/l	.05	0.0432	86.4	67-135	WG364286
Toluene	mg/l	.05	0.0432	86.4	72-122	WG364286
trans-1,2-Dichloroethene	mg/l	.05	0.0449	89.7	67-129	WG364286
trans-1,3-Dichloropropene	mg/l	.05	0.0508	102.	66-137	WG364286
Trichloroethene	mg/l	.05	0.0452	90.4	74-126	WG364286
Trichlorofluoromethane	mg/l	.05	0.0444	88.8	54-156	WG364286
Vinyl chloride	mg/l	.05	0.0517	103.	55-153	WG364286
Xylenes, Total	mg/l	.15	0.130	86.7	75-128	WG364286
Gasoline Range Organics-NWTPH	mg/l	5.5	4.63	84.2	70-124	WG364332
1,1,1,2-Tetrachloroethane	mg/l	.05	0.0555	111.	75-134	WG364471
1,1,1-Trichloroethane	mg/l	.05	0.0483	96.5	67-137	WG364471
1,1,2,2-Tetrachloroethane	mg/l	.05	0.0468	93.5	72-128	WG364471
1,1,2-Trichloroethane	mg/l	.05	0.0469	93.8	79-123	WG364471
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	.05	0.0455	90.9	51-149	WG364471
1,1-Dichloroethane	mg/l	.05	0.0440	88.1	67-133	WG364471
1,1-Dichloroethene	mg/l	.05	0.0455	91.1	60-130	WG364471
1,1-Dichloropropene	mg/l	.05	0.0431	86.1	68-132	WG364471
1,2,3-Trichlorobenzene	mg/l	.05	0.0468	93.6	63-138	WG364471
1,2,3-Trichloropropane	mg/l	.05	0.0450	89.9	68-130	WG364471
1,2,3-Trimethylbenzene	mg/l	.05	0.0452	90.4	70-127	WG364471
1,2,4-Trichlorobenzene	mg/l	.05	0.0498	99.5	65-137	WG364471
1,2,4-Trimethylbenzene	mg/l	.05	0.0475	95.0	72-135	WG364471
1,2-Dibromo-3-Chloropropane	mg/l	.05	0.0404	80.9	55-134	WG364471
1,2-Dibromoethane	mg/l	.05	0.0472	94.5	75-126	WG364471
1,2-Dichlorobenzene	mg/l	.05	0.0473	94.6	75-122	WG364471
1,2-Dichloroethane	mg/l	.05	0.0440	87.9	63-137	WG364471
1,2-Dichloropropane	mg/l	.05	0.0435	87.0	74-122	WG364471
1,3,5-Trimethylbenzene	mg/l	.05	0.0469	93.8	73-134	WG364471
1,3-Dichlorobenzene	mg/l	.05	0.0464	92.8	73-131	WG364471
1,3-Dichloropropane	mg/l	.05	0.0451	90.1	77-119	WG364471
1,4-Dichlorobenzene	mg/l	.05	0.0437	87.4	70-121	WG364471
2,2-Dichloropropane	mg/l	.05	0.0532	106.	46-151	WG364471
2-Butanone (MEK)	mg/l	.25	0.230	91.8	53-132	WG364471
2-Chloroethyl vinyl ether	mg/l	.25	0.221	88.2	0-171	WG364471
2-Chlorotoluene	mg/l	.05	0.0454	90.8	74-128	WG364471
4-Chlorotoluene	mg/l	.05	0.0459	91.7	74-130	WG364471
4-Methyl-2-pentanone (MIBK)	mg/l	.25	0.230	92.0	60-142	WG364471
Acetone	mg/l	.25	0.200	80.2	48-134	WG364471
Acrolein	mg/l	.25	0.169	67.8	6-182	WG364471
Acrylonitrile	mg/l	.25	0.211	84.4	60-140	WG364471
Benzene	mg/l	.05	0.0430	86.0	67-126	WG364471
Bromobenzene	mg/l	.05	0.0450	90.0	76-123	WG364471
Bromodichloromethane	mg/l	.05	0.0505	101.	68-133	WG364471
Bromoform	mg/l	.05	0.0490	97.9	60-139	WG364471
Bromomethane	mg/l	.05	0.0533	107.	45-175	WG364471
Carbon tetrachloride	mg/l	.05	0.0512	102.	64-141	WG364471
Chlorobenzene	mg/l	.05	0.0466	93.1	77-125	WG364471
Chlorodibromomethane	mg/l	.05	0.0587	117.	73-138	WG364471
Chloroethane	mg/l	.05	0.0471	94.3	49-155	WG364471
Chloroform	mg/l	.05	0.0425	85.0	66-126	WG364471

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Quality Assurance Report
Level II

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June 04, 2008

Chloromethane	mg/l	.05	0.0462	92.4	45-152	WG364471

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
cis-1,2-Dichloroethene	mg/l	.05	0.0432	86.5	72-128	WG364471
cis-1,3-Dichloropropene	mg/l	.05	0.0496	99.2	73-131	WG364471
Di-isopropyl ether	mg/l	.05	0.0433	86.7	63-139	WG364471
Dibromomethane	mg/l	.05	0.0477	95.5	73-125	WG364471
Dichlorodifluoromethane	mg/l	.05	0.0462	92.4	39-189	WG364471
Ethylbenzene	mg/l	.05	0.0474	94.7	76-129	WG364471
Hexachlorobutadiene	mg/l	.05	0.0500	100.	67-135	WG364471
Isopropylbenzene	mg/l	.05	0.0483	96.5	73-132	WG364471
Methyl tert-butyl ether	mg/l	.05	0.0435	87.1	51-142	WG364471
Methylene Chloride	mg/l	.05	0.0417	83.4	64-125	WG364471
n-Butylbenzene	mg/l	.05	0.0474	94.8	63-142	WG364471
n-Propylbenzene	mg/l	.05	0.0465	93.0	71-132	WG364471
Naphthalene	mg/l	.05	0.0504	101.	56-145	WG364471
p-Isopropyltoluene	mg/l	.05	0.0476	95.2	68-138	WG364471
sec-Butylbenzene	mg/l	.05	0.0475	95.1	70-135	WG364471
Styrene	mg/l	.05	0.0494	98.7	78-130	WG364471
tert-Butylbenzene	mg/l	.05	0.0478	95.6	72-134	WG364471
Tetrachloroethene	mg/l	.05	0.0479	95.9	67-135	WG364471
Toluene	mg/l	.05	0.0448	89.7	72-122	WG364471
trans-1,2-Dichloroethene	mg/l	.05	0.0416	83.1	67-129	WG364471
trans-1,3-Dichloropropene	mg/l	.05	0.0503	101.	66-137	WG364471
Trichloroethene	mg/l	.05	0.0458	91.7	74-126	WG364471
Trichlorofluoromethane	mg/l	.05	0.0473	94.6	54-156	WG364471
Vinyl chloride	mg/l	.05	0.0453	90.5	55-153	WG364471
Xylenes, Total	mg/l	.15	0.144	96.0	75-128	WG364471

Laboratory Control Sample Duplicate

Analyte	Units	LCSD Res	Ref Res	RPD	Limit	%Rec	Batch
1-Methylnaphthalene	ppm	0.0008	0.0008	6.29	32	86	WG363550
2-Chloronaphthalene	ppm	0.0008	0.0008	9.02	30	89	WG363550
2-Methylnaphthalene	ppm	0.0008	0.0007	7.85	31	84	WG363550
Acenaphthene	ppm	0.0010	0.0009	6.64	25	101	WG363550
Acenaphthylene	ppm	0.0009	0.0008	6.94	25	93	WG363550
Anthracene	ppm	0.0009	0.0010	4.32	26	97	WG363550
Benzo(a)anthracene	ppm	0.0010	0.0011	5.44	26	109	WG363550
Benzo(a)pyrene	ppm	0.0010	0.0011	5.86	21	109	WG363550
Benzo(b)fluoranthene	ppm	0.0009	0.0011	11.1	38	99	WG363550
Benzo(g,h,i)perylene	ppm	0.0011	0.0011	4.59	20	112	WG363550
Benzo(k)fluoranthene	ppm	0.0009	0.0009	1.19	39	100	WG363550
Chrysene	ppm	0.0011	0.0011	3.54	22	110	WG363550
Dibenz(a,h)anthracene	ppm	0.0011	0.0011	3.93	20	112	WG363550
Fluoranthene	ppm	0.0010	0.0011	6.84	25	104	WG363550
Fluorene	ppm	0.0009	0.0009	2.73	26	94	WG363550
Indeno(1,2,3-cd)pyrene	ppm	0.0011	0.0011	4.24	20	113	WG363550
Naphthalene	ppm	0.0008	0.0008	0.819	32	86	WG363550
Phenanthrene	ppm	0.0009	0.0010	11.9	25	95	WG363550
Pyrene	ppm	0.0010	0.0010	1.51	22	102	WG363550
Diesel Range Organics (DRO)	mg/l	0.516	0.479	7.39	20	69	WG363578
Residual Range Organics (RRO)	mg/l	0.629	0.510	21.0	0	42	WG363578
1-Methylnaphthalene	ppm	0.0006	0.0005	13.5	32	64	WG363909
2-Chloronaphthalene	ppm	0.0006	0.0006	7.81	30	66	WG363909
2-Methylnaphthalene	ppm	0.0006	0.0005	14.9	31	62	WG363909
Acenaphthene	ppm	0.0008	0.0008	3.79	25	84	WG363909
Acenaphthylene	ppm	0.0007	0.0007	0.696	25	77	WG363909
Anthracene	ppm	0.0009	0.0010	2.47	26	98	WG363909
Benzo(a)anthracene	ppm	0.0011	0.0012	9.70	26	111	WG363909

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Benzo(a)pyrene	ppm	0.0011	0.0012	5.22	21	116	WG363909

Laboratory Control Sample Duplicate

Analyte	Units	LCSD Res	Ref Res	RPD	Limit	%Rec	Batch
Benzo(b)fluoranthene	ppm	0.0010	0.0011	11.3	38	106	WG363909
Benzo(g,h,i)perylene	ppm	0.0011	0.0012	5.81	20	118	WG363909
Benzo(k)fluoranthene	ppm	0.0010	0.0009	5.97	39	106	WG363909
Chrysene	ppm	0.0011	0.0012	6.17	22	113	WG363909
Dibenz(a,h)anthracene	ppm	0.0011	0.0012	7.64	20	116	WG363909
Fluoranthene	ppm	0.0010	0.0010	2.54	25	105	WG363909
Fluorene	ppm	0.0009	0.0009	1.40	26	93	WG363909
Indeno(1,2,3-cd)pyrene	ppm	0.0012	0.0012	4.76	20	120	WG363909
Naphthalene	ppm	0.0006	0.0005	20.2	32	63	WG363909
Phenanthrene	ppm	0.0009	0.0010	11.1	25	93	WG363909
Pyrene	ppm	0.0010	0.0011	9.09	22	101	WG363909
Gasoline Range Organics-NWTPH	mg/l	5.79	5.67	2.02	20	105	WG364087
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0503	0.516	20	100	WG364159
1,1,1-Trichloroethane	mg/l	0.0481	0.0496	3.03	20	96	WG364159
1,1,2,2-Tetrachloroethane	mg/l	0.0594	0.0583	1.89	20	119	WG364159
1,1,2-Trichloroethane	mg/l	0.0547	0.0545	0.273	20	109	WG364159
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.0646	0.0669	3.52	20	129	WG364159
1,1-Dichloroethane	mg/l	0.0457	0.0471	2.95	20	91	WG364159
1,1-Dichloroethene	mg/l	0.0464	0.0483	3.95	20	93	WG364159
1,1-Dichloropropene	mg/l	0.0515	0.0533	3.51	20	103	WG364159
1,2,3-Trichlorobenzene	mg/l	0.0499	0.0500	0.107	20	100	WG364159
1,2,3-Trichloropropane	mg/l	0.0539	0.0526	2.47	20	108	WG364159
1,2,3-Trimethylbenzene	mg/l	0.0486	0.0501	3.09	20	97	WG364159
1,2,4-Trichlorobenzene	mg/l	0.0506	0.0511	0.877	20	101	WG364159
1,2,4-Trimethylbenzene	mg/l	0.0491	0.0504	2.52	20	98	WG364159
1,2-Dibromo-3-Chloropropane	mg/l	0.0583	0.0566	2.89	20	117	WG364159
1,2-Dibromoethane	mg/l	0.0561	0.0556	0.893	20	112	WG364159
1,2-Dichlorobenzene	mg/l	0.0511	0.0519	1.53	20	102	WG364159
1,2-Dichloroethane	mg/l	0.0477	0.0472	1.07	20	95	WG364159
1,2-Dichloropropane	mg/l	0.0536	0.0551	2.80	20	107	WG364159
1,3,5-Trimethylbenzene	mg/l	0.0494	0.0506	2.51	20	99	WG364159
1,3-Dichlorobenzene	mg/l	0.0491	0.0495	0.856	20	98	WG364159
1,3-Dichloropropane	mg/l	0.0519	0.0512	1.36	20	104	WG364159
1,4-Dichlorobenzene	mg/l	0.0494	0.0511	3.42	20	99	WG364159
2,2-Dichloropropane	mg/l	0.0491	0.0513	4.40	20	98	WG364159
2-Butanone (MEK)	mg/l	0.278	0.269	3.46	20	111	WG364159
2-Chloroethyl vinyl ether	mg/l	0.299	0.298	0.0800	27	119	WG364159
2-Chlorotoluene	mg/l	0.0480	0.0495	3.17	20	96	WG364159
4-Chlorotoluene	mg/l	0.0500	0.0515	2.94	20	100	WG364159
4-Methyl-2-pentanone (MIBK)	mg/l	0.317	0.306	3.49	20	127	WG364159
Acetone	mg/l	0.265	0.254	4.37	20	106	WG364159
Acrolein	mg/l	0.238	0.232	2.42	39	95	WG364159
Acrylonitrile	mg/l	0.307	0.298	2.85	20	123	WG364159
Benzene	mg/l	0.0492	0.0507	2.99	20	98	WG364159
Bromobenzene	mg/l	0.0486	0.0495	1.89	20	97	WG364159
Bromodichloromethane	mg/l	0.0523	0.0533	1.95	20	105	WG364159
Bromoform	mg/l	0.0624	0.0611	2.17	20	125	WG364159
Bromomethane	mg/l	0.0312	0.0354	12.6	20	62	WG364159
Carbon tetrachloride	mg/l	0.0468	0.0489	4.47	20	94	WG364159
Chlorobenzene	mg/l	0.0503	0.0515	2.24	20	101	WG364159
Chlorodibromomethane	mg/l	0.0561	0.0555	0.998	20	112	WG364159
Chloroethane	mg/l	0.0385	0.0397	2.99	20	77	WG364159
Chloroform	mg/l	0.0463	0.0472	1.84	20	93	WG364159
Chloromethane	mg/l	0.0538	0.0278	63.8	20	108	WG364159
cis-1,2-Dichloroethene	mg/l	0.0488	0.0502	2.74	20	98	WG364159
cis-1,3-Dichloropropene	mg/l	0.0559	0.0566	1.33	20	112	WG364159
Di-isopropyl ether	mg/l	0.0589	0.0585	0.689	20	118	WG364159

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ENVIRONMENTAL SCIENCE CORP.

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Tax I.D. 62-0814289

Est. 1970

Hart Crowser - Portland, OR
Leon Lahiere
Five Centerpointe Dr, Ste 240
Lake Oswego, OR 97035

Quality Assurance Report
Level II

L347487

June 04, 2008

Dibromomethane	mg/l	0.0525	0.0527	0.438	20	105	WG364159

Laboratory Control Sample Duplicate

Analyte	Units	LCSD Res	Ref Res	RPD	Limit	%Rec	Batch
Dichlorodifluoromethane	mg/l	0.0299	0.0328	9.46	24	60	WG364159
Ethylbenzene	mg/l	0.0504	0.0521	3.20	20	101	WG364159
Hexachlorobutadiene	mg/l	0.0489	0.0510	4.18	20	98	WG364159
Isopropylbenzene	mg/l	0.0507	0.0524	3.12	20	101	WG364159
Methyl tert-butyl ether	mg/l	0.0584	0.0563	3.63	20	117	WG364159
Methylene Chloride	mg/l	0.0388	0.0379	2.31	20	78	WG364159
n-Butylbenzene	mg/l	0.0547	0.0575	5.05	20	109	WG364159
n-Propylbenzene	mg/l	0.0503	0.0523	4.07	20	101	WG364159
Naphthalene	mg/l	0.0516	0.0519	0.554	20	103	WG364159
p-Isopropyltoluene	mg/l	0.0505	0.0519	2.69	20	101	WG364159
sec-Butylbenzene	mg/l	0.0511	0.0528	3.42	20	102	WG364159
Styrene	mg/l	0.0569	0.0577	1.26	20	114	WG364159
tert-Butylbenzene	mg/l	0.0496	0.0512	3.14	20	99	WG364159
Tetrachloroethene	mg/l	0.0525	0.0542	3.21	20	105	WG364159
Toluene	mg/l	0.0511	0.0533	4.14	20	102	WG364159
trans-1,2-Dichloroethene	mg/l	0.0483	0.0498	3.14	20	97	WG364159
trans-1,3-Dichloropropene	mg/l	0.0553	0.0559	0.961	20	111	WG364159
Trichloroethene	mg/l	0.0506	0.0529	4.45	20	101	WG364159
Trichlorofluoromethane	mg/l	0.0470	0.0498	5.75	20	94	WG364159
Vinyl chloride	mg/l	0.0500	0.0524	4.64	20	100	WG364159
Xylenes, Total	mg/l	0.149	0.152	2.29	20	99	WG364159
Gasoline Range Organics-NWTPH	mg/l	5.54	5.71	3.03	20	101	WG364190
1,1,1,2-Tetrachloroethane	mg/l	0.0532	0.0527	0.869	20	106	WG364286
1,1,1-Trichloroethane	mg/l	0.0503	0.0513	2.01	20	101	WG364286
1,1,2,2-Tetrachloroethane	mg/l	0.0439	0.0425	3.40	20	88	WG364286
1,1,2-Trichloroethane	mg/l	0.0450	0.0440	2.41	20	90	WG364286
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.0464	0.0481	3.74	20	93	WG364286
1,1-Dichloroethane	mg/l	0.0470	0.0485	3.14	20	94	WG364286
1,1-Dichloroethene	mg/l	0.0581	0.0599	3.09	20	116	WG364286
1,1-Dichloropropene	mg/l	0.0442	0.0449	1.52	20	88	WG364286
1,2,3-Trichlorobenzene	mg/l	0.0472	0.0448	5.30	20	94	WG364286
1,2,3-Trichloropropane	mg/l	0.0425	0.0424	0.0298	20	85	WG364286
1,2,3-Trimethylbenzene	mg/l	0.0452	0.0438	3.16	20	90	WG364286
1,2,4-Trichlorobenzene	mg/l	0.0487	0.0469	3.86	20	97	WG364286
1,2,4-Trimethylbenzene	mg/l	0.0434	0.0437	0.728	20	87	WG364286
1,2-Dibromo-3-Chloropropane	mg/l	0.0409	0.0389	5.06	20	82	WG364286
1,2-Dibromoethane	mg/l	0.0453	0.0446	1.74	20	91	WG364286
1,2-Dichlorobenzene	mg/l	0.0462	0.0441	4.68	20	92	WG364286
1,2-Dichloroethane	mg/l	0.0478	0.0477	0.116	20	96	WG364286
1,2-Dichloropropane	mg/l	0.0453	0.0445	1.82	20	91	WG364286
1,3,5-Trimethylbenzene	mg/l	0.0436	0.0437	0.240	20	87	WG364286
1,3-Dichlorobenzene	mg/l	0.0417	0.0417	0.0336	20	83	WG364286
1,3-Dichloropropane	mg/l	0.0446	0.0437	1.84	20	89	WG364286
1,4-Dichlorobenzene	mg/l	0.0424	0.0411	3.05	20	85	WG364286
2,2-Dichloropropane	mg/l	0.0566	0.0576	1.90	20	113	WG364286
2-Butanone (MEK)	mg/l	0.219	0.220	0.657	20	88	WG364286
2-Chloroethyl vinyl ether	mg/l	0.237	0.235	0.965	27	95	WG364286
2-Chlorotoluene	mg/l	0.0414	0.0414	0.0445	20	83	WG364286
4-Chlorotoluene	mg/l	0.0426	0.0425	0.151	20	85	WG364286
4-Methyl-2-pentanone (MIBK)	mg/l	0.234	0.229	1.99	20	93	WG364286
Acetone	mg/l	0.209	0.205	2.29	20	84	WG364286
Acrolein	mg/l	0.250	0.239	4.36	39	100	WG364286
Acrylonitrile	mg/l	0.218	0.217	0.261	20	87	WG364286
Benzene	mg/l	0.0440	0.0448	1.93	20	88	WG364286
Bromobenzene	mg/l	0.0427	0.0429	0.271	20	85	WG364286
Bromodichloromethane	mg/l	0.0501	0.0503	0.348	20	100	WG364286
Bromoform	mg/l	0.0442	0.0449	1.40	20	88	WG364286

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Quality Assurance Report
Level II

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June 04, 2008

Bromomethane	mg/l	0.0532	0.0553	3.94	20	106	WG364286

Laboratory Control Sample Duplicate

Analyte	Units	LCSD Res	Ref Res	RPD	Limit	%Rec	Batch
Carbon tetrachloride	mg/l	0.0535	0.0534	0.288	20	107	WG364286
Chlorobenzene	mg/l	0.0421	0.0425	0.973	20	84	WG364286
Chlorodibromomethane	mg/l	0.0547	0.0545	0.321	20	109	WG364286
Chloroethane	mg/l	0.0528	0.0547	3.59	20	106	WG364286
Chloroform	mg/l	0.0434	0.0438	0.932	20	87	WG364286
Chloromethane	mg/l	0.0471	0.0492	4.24	20	94	WG364286
cis-1,2-Dichloroethene	mg/l	0.0438	0.0446	1.99	20	88	WG364286
cis-1,3-Dichloropropene	mg/l	0.0500	0.0509	1.84	20	100	WG364286
Di-isopropyl ether	mg/l	0.0452	0.0451	0.163	20	90	WG364286
Dibromomethane	mg/l	0.0472	0.0480	1.82	20	94	WG364286
Dichlorodifluoromethane	mg/l	0.0449	0.0444	1.29	24	90	WG364286
Ethylbenzene	mg/l	0.0424	0.0431	1.74	20	85	WG364286
Hexachlorobutadiene	mg/l	0.0530	0.0506	4.65	20	106	WG364286
Isopropylbenzene	mg/l	0.0454	0.0457	0.765	20	91	WG364286
Methyl tert-butyl ether	mg/l	0.0437	0.0430	1.80	20	87	WG364286
Methylene Chloride	mg/l	0.0428	0.0444	3.80	20	86	WG364286
n-Butylbenzene	mg/l	0.0467	0.0457	2.22	20	93	WG364286
n-Propylbenzene	mg/l	0.0424	0.0422	0.497	20	85	WG364286
Naphthalene	mg/l	0.0520	0.0481	7.78	20	104	WG364286
p-Isopropyltoluene	mg/l	0.0445	0.0444	0.110	20	89	WG364286
sec-Butylbenzene	mg/l	0.0433	0.0442	1.97	20	87	WG364286
Styrene	mg/l	0.0441	0.0442	0.216	20	88	WG364286
tert-Butylbenzene	mg/l	0.0436	0.0437	0.231	20	87	WG364286
Tetrachloroethene	mg/l	0.0431	0.0432	0.115	20	86	WG364286
Toluene	mg/l	0.0429	0.0432	0.619	20	86	WG364286
trans-1,2-Dichloroethene	mg/l	0.0441	0.0449	1.67	20	88	WG364286
trans-1,3-Dichloropropene	mg/l	0.0504	0.0508	0.657	20	101	WG364286
Trichloroethene	mg/l	0.0433	0.0452	4.24	20	87	WG364286
Trichlorofluoromethane	mg/l	0.0434	0.0444	2.26	20	87	WG364286
Vinyl chloride	mg/l	0.0454	0.0517	13.0	20	91	WG364286
Xylenes, Total	mg/l	0.129	0.130	0.612	20	86	WG364286
Gasoline Range Organics-NWTPH	mg/l	4.66	4.63	0.658	20	85	WG364332
1,1,1,2-Tetrachloroethane	mg/l	0.0600	0.0555	7.68	20	120	WG364471
1,1,1-Trichloroethane	mg/l	0.0521	0.0483	7.68	20	104	WG364471
1,1,2,2-Tetrachloroethane	mg/l	0.0481	0.0468	2.83	20	96	WG364471
1,1,2-Trichloroethane	mg/l	0.0491	0.0469	4.56	20	98	WG364471
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.0468	0.0455	2.84	20	94	WG364471
1,1-Dichloroethane	mg/l	0.0465	0.0440	5.51	20	93	WG364471
1,1-Dichloroethene	mg/l	0.0483	0.0455	5.87	20	97	WG364471
1,1-Dichloropropene	mg/l	0.0450	0.0431	4.31	20	90	WG364471
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0468	6.66	20	100	WG364471
1,2,3-Trichloropropane	mg/l	0.0465	0.0450	3.43	20	93	WG364471
1,2,3-Trimethylbenzene	mg/l	0.0484	0.0452	6.88	20	97	WG364471
1,2,4-Trichlorobenzene	mg/l	0.0519	0.0498	4.13	20	104	WG364471
1,2,4-Trimethylbenzene	mg/l	0.0493	0.0475	3.74	20	99	WG364471
1,2-Dibromo-3-Chloropropane	mg/l	0.0450	0.0404	10.8	20	90	WG364471
1,2-Dibromoethane	mg/l	0.0483	0.0472	2.23	20	97	WG364471
1,2-Dichlorobenzene	mg/l	0.0501	0.0473	5.70	20	100	WG364471
1,2-Dichloroethane	mg/l	0.0458	0.0440	4.06	20	92	WG364471
1,2-Dichloropropane	mg/l	0.0456	0.0435	4.67	20	91	WG364471
1,3,5-Trimethylbenzene	mg/l	0.0495	0.0469	5.33	20	99	WG364471
1,3-Dichlorobenzene	mg/l	0.0472	0.0464	1.79	20	94	WG364471
1,3-Dichloropropane	mg/l	0.0467	0.0451	3.64	20	93	WG364471
1,4-Dichlorobenzene	mg/l	0.0454	0.0437	3.70	20	91	WG364471
2,2-Dichloropropane	mg/l	0.0561	0.0532	5.31	20	112	WG364471
2-Butanone (MEK)	mg/l	0.236	0.230	2.83	20	94	WG364471
2-Chloroethyl vinyl ether	mg/l	0.225	0.221	2.15	27	90	WG364471

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ENVIRONMENTAL SCIENCE CORP.

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Quality Assurance Report
Level II

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June 04, 2008

2-Chlorotoluene	mg/l	0.0469	0.0454	3.15	20	94	WG364471

Laboratory Control Sample Duplicate

Analyte	Units	LCSD Res	Ref Res	RPD	Limit	%Rec	Batch
4-Chlorotoluene	mg/l	0.0476	0.0459	3.65	20	95	WG364471
4-Methyl-2-pentanone (MIBK)	mg/l	0.238	0.230	3.60	20	95	WG364471
Acetone	mg/l	0.213	0.200	6.04	20	85	WG364471
Acrolein	mg/l	0.186	0.169	9.45	39	74	WG364471
Acrylonitrile	mg/l	0.220	0.211	4.01	20	88	WG364471
Benzene	mg/l	0.0451	0.0430	4.79	20	90	WG364471
Bromobenzene	mg/l	0.0461	0.0450	2.46	20	92	WG364471
Bromodichloromethane	mg/l	0.0525	0.0505	3.80	20	105	WG364471
Bromoform	mg/l	0.0500	0.0490	2.01	20	100	WG364471
Bromomethane	mg/l	0.0557	0.0533	4.44	20	111	WG364471
Carbon tetrachloride	mg/l	0.0554	0.0512	7.83	20	111	WG364471
Chlorobenzene	mg/l	0.0476	0.0466	2.24	20	95	WG364471
Chlorodibromomethane	mg/l	0.0617	0.0587	4.95	20	123	WG364471
Chloroethane	mg/l	0.0496	0.0471	5.16	20	99	WG364471
Chloroform	mg/l	0.0447	0.0425	4.96	20	89	WG364471
Chloromethane	mg/l	0.0482	0.0462	4.29	20	96	WG364471
cis-1,2-Dichloroethene	mg/l	0.0451	0.0432	4.16	20	90	WG364471
cis-1,3-Dichloropropene	mg/l	0.0514	0.0496	3.52	20	103	WG364471
Di-isopropyl ether	mg/l	0.0456	0.0433	5.20	20	91	WG364471
Dibromomethane	mg/l	0.0508	0.0477	6.19	20	102	WG364471
Dichlorodifluoromethane	mg/l	0.0478	0.0462	3.42	24	96	WG364471
Ethylbenzene	mg/l	0.0495	0.0474	4.44	20	99	WG364471
Hexachlorobutadiene	mg/l	0.0535	0.0500	6.85	20	107	WG364471
Isopropylbenzene	mg/l	0.0504	0.0483	4.29	20	101	WG364471
Methyl tert-butyl ether	mg/l	0.0450	0.0435	3.21	20	90	WG364471
Methylene Chloride	mg/l	0.0431	0.0417	3.24	20	86	WG364471
n-Butylbenzene	mg/l	0.0510	0.0474	7.36	20	102	WG364471
n-Propylbenzene	mg/l	0.0479	0.0465	2.86	20	96	WG364471
Naphthalene	mg/l	0.0554	0.0504	9.48	20	111	WG364471
p-Isopropyltoluene	mg/l	0.0504	0.0476	5.76	20	101	WG364471
sec-Butylbenzene	mg/l	0.0488	0.0475	2.69	20	98	WG364471
Styrene	mg/l	0.0513	0.0494	3.81	20	103	WG364471
tert-Butylbenzene	mg/l	0.0498	0.0478	4.00	20	100	WG364471
Tetrachloroethene	mg/l	0.0494	0.0479	2.93	20	99	WG364471
Toluene	mg/l	0.0470	0.0448	4.60	20	94	WG364471
trans-1,2-Dichloroethene	mg/l	0.0433	0.0416	4.16	20	87	WG364471
trans-1,3-Dichloropropene	mg/l	0.0514	0.0503	2.17	20	103	WG364471
Trichloroethene	mg/l	0.0470	0.0458	2.58	20	94	WG364471
Trichlorofluoromethane	mg/l	0.0503	0.0473	6.10	20	101	WG364471
Vinyl chloride	mg/l	0.0518	0.0453	13.4	20	104	WG364471
Xylenes, Total	mg/l	0.147	0.144	2.31	20	98	WG364471

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Gasoline Range Organics-NWTPH	mg/l	5.57	0.00	5.5	101.	58-122	L347265-03	WG364087
1,1,1,2-Tetrachloroethane	mg/l	0.666	0.00	.05	133.	45-152	L347297-16	WG364159
1,1,1-Trichloroethane	mg/l	0.541	0.00	.05	108.	31-161	L347297-16	WG364159
1,1,2,2-Tetrachloroethane	mg/l	0.853	0.00	.05	171.	49-149	L347297-16	WG364159
1,1,2-Trichloroethane	mg/l	0.758	0.00	.05	152.	46-145	L347297-16	WG364159
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.701	0.00	.05	140.	14-168	L347297-16	WG364159
1,1-Dichloroethane	mg/l	0.520	0.00	.05	104.	30-159	L347297-16	WG364159
1,1-Dichloroethene	mg/l	0.548	0.00	.05	110.	10-162	L347297-16	WG364159
1,1-Dichloropropene	mg/l	0.569	0.00	.05	114.	14-162	L347297-16	WG364159
1,2,3-Trichlorobenzene	mg/l	0.805	0.00	.05	161.	32-143	L347297-16	WG364159
1,2,3-Trichloropropane	mg/l	0.794	0.00	.05	159.	48-148	L347297-16	WG364159
1,2,3-Trimethylbenzene	mg/l	0.715	0.0110	.05	141.	36-141	L347297-16	WG364159
1,2,4-Trichlorobenzene	mg/l	0.799	0.00	.05	160.	27-142	L347297-16	WG364159

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1,2,4-Trimethylbenzene	mg/l	0.608	0.0130	.05	119.	29-153	L347297-16	WG364159

		Matrix Spike						
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,2-Dibromo-3-Chloropropane	mg/l	1.05	0.00	.05	211.	37-148	L347297-16	WG364159
1,2-Dibromoethane	mg/l	0.773	0.00	.05	155.	41-149	L347297-16	WG364159
1,2-Dichlorobenzene	mg/l	0.793	0.00	.05	159.	40-139	L347297-16	WG364159
1,2-Dichloroethane	mg/l	0.603	0.00	.05	121.	29-167	L347297-16	WG364159
1,2-Dichloropropane	mg/l	0.666	0.00	.05	133.	39-148	L347297-16	WG364159
1,3,5-Trimethylbenzene	mg/l	0.588	0.00	.05	118.	33-149	L347297-16	WG364159
1,3-Dichlorobenzene	mg/l	0.629	0.00	.05	126.	32-148	L347297-16	WG364159
1,3-Dichloropropane	mg/l	0.712	0.00	.05	142.	44-142	L347297-16	WG364159
1,4-Dichlorobenzene	mg/l	0.726	0.00	.05	145.	32-136	L347297-16	WG364159
2,2-Dichloropropane	mg/l	0.551	0.00	.05	110.	14-158	L347297-16	WG364159
2-Butanone (MEK)	mg/l	3.56	0.00	.25	142.	32-151	L347297-16	WG364159
2-Chloroethyl vinyl ether	mg/l	3.86	0.00	.25	154.	0-175	L347297-16	WG364159
2-Chlorotoluene	mg/l	0.587	0.00	.05	117.	35-147	L347297-16	WG364159
4-Chlorotoluene	mg/l	0.616	0.00	.05	123.	33-147	L347297-16	WG364159
4-Methyl-2-pentanone (MIBK)	mg/l	4.56	0.00	.25	183.	40-160	L347297-16	WG364159
Acetone	mg/l	3.32	0.00	.25	133.	25-157	L347297-16	WG364159
Acrolein	mg/l	7.19	0.00	.25	288.	0-179	L347297-16	WG364159
Acrylonitrile	mg/l	3.93	0.00	.25	157.	37-162	L347297-16	WG364159
Benzene	mg/l	0.538	0.00	.05	108.	16-158	L347297-16	WG364159
Bromobenzene	mg/l	0.630	0.00	.05	126.	37-147	L347297-16	WG364159
Bromodichloromethane	mg/l	0.654	0.00	.05	131.	45-147	L347297-16	WG364159
Bromoform	mg/l	0.873	0.00	.05	175.	38-152	L347297-16	WG364159
Bromomethane	mg/l	0.306	0.00	.05	61.2	0-191	L347297-16	WG364159
Carbon tetrachloride	mg/l	0.525	0.00	.05	105.	22-168	L347297-16	WG364159
Chlorobenzene	mg/l	0.622	0.00	.05	124.	33-148	L347297-16	WG364159
Chlorodibromomethane	mg/l	0.774	0.00	.05	155.	48-151	L347297-16	WG364159
Chloroethane	mg/l	0.409	0.00	.05	81.8	4-176	L347297-16	WG364159
Chloroform	mg/l	0.526	0.00	.05	105.	37-147	L347297-16	WG364159
Chloromethane	mg/l	0.230	0.00	.05	45.9	10-174	L347297-16	WG364159
cis-1,2-Dichloroethene	mg/l	0.551	0.00	.05	110.	29-156	L347297-16	WG364159
cis-1,3-Dichloropropene	mg/l	0.709	0.00	.05	142.	35-148	L347297-16	WG364159
Di-isopropyl ether	mg/l	0.716	0.00	.05	143.	39-160	L347297-16	WG364159
Dibromomethane	mg/l	0.681	0.00	.05	136.	36-152	L347297-16	WG364159
Dichlorodifluoromethane	mg/l	0.394	0.00	.05	78.7	0-200	L347297-16	WG364159
Ethylbenzene	mg/l	0.606	0.0200	.05	117.	29-150	L347297-16	WG364159
Hexachlorobutadiene	mg/l	0.697	0.00	.05	139.	28-144	L347297-16	WG364159
Isopropylbenzene	mg/l	0.617	0.00	.05	123.	35-147	L347297-16	WG364159
Methyl tert-butyl ether	mg/l	0.763	0.00	.05	153.	24-167	L347297-16	WG364159
Methylene Chloride	mg/l	0.442	0.00	.05	88.4	23-151	L347297-16	WG364159
n-Butylbenzene	mg/l	0.748	0.00	.05	150.	22-151	L347297-16	WG364159
n-Propylbenzene	mg/l	0.609	0.0120	.05	119.	26-150	L347297-16	WG364159
Naphthalene	mg/l	0.877	0.00	.05	175.	24-160	L347297-16	WG364159
p-Isopropyltoluene	mg/l	0.607	0.00	.05	121.	28-151	L347297-16	WG364159
sec-Butylbenzene	mg/l	0.611	0.00	.05	122.	32-149	L347297-16	WG364159
Styrene	mg/l	0.677	0.00	.05	135.	38-149	L347297-16	WG364159
tert-Butylbenzene	mg/l	0.592	0.00	.05	118.	36-149	L347297-16	WG364159
Tetrachloroethene	mg/l	0.605	0.00	.05	121.	13-157	L347297-16	WG364159
Toluene	mg/l	0.578	0.00	.05	116.	22-152	L347297-16	WG364159
trans-1,2-Dichloroethene	mg/l	0.538	0.00	.05	108.	11-160	L347297-16	WG364159
trans-1,3-Dichloropropene	mg/l	0.714	0.00	.05	143.	33-153	L347297-16	WG364159
Trichloroethene	mg/l	0.582	0.00	.05	116.	18-163	L347297-16	WG364159
Trichlorofluoromethane	mg/l	0.477	0.00	.05	95.4	10-177	L347297-16	WG364159
Vinyl chloride	mg/l	0.346	0.00	.05	69.2	0-179	L347297-16	WG364159
Xylenes, Total	mg/l	1.76	0.00	.15	118.	27-151	L347297-16	WG364159
Gasoline Range Organics-NWTPH	mg/l	5.85	0.00	5.5	106.	58-122	L347433-09	WG364190
1,1,1,2-Tetrachloroethane	mg/l	5.29	0.00	.05	106.	45-152	L347305-03	WG364286
1,1,1-Trichloroethane	mg/l	4.55	0.00	.05	91.0	31-161	L347305-03	WG364286

Confidential Business Information

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ENVIRONMENTAL
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Est. 1970

Hart Crowser - Portland, OR
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Lake Oswego, OR 97035

Quality Assurance Report
Level II

L347487

June 04, 2008

1,1,2,2-Tetrachloroethane	mg/l	4.93	0.00	.05	98.7	49-149	L347305-03	WG364286

		Matrix Spike						
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,1,2-Trichloroethane	mg/l	4.70	0.00	.05	93.9	46-145	L347305-03	WG364286
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	3.96	0.00	.05	79.2	14-168	L347305-03	WG364286
1,1-Dichloroethane	mg/l	4.25	0.00	.05	85.0	30-159	L347305-03	WG364286
1,1-Dichloroethene	mg/l	3.72	0.00	.05	74.5	10-162	L347305-03	WG364286
1,1-Dichloropropene	mg/l	3.94	0.00	.05	78.7	14-162	L347305-03	WG364286
1,2,3-Trichlorobenzene	mg/l	4.79	0.00	.05	95.8	32-143	L347305-03	WG364286
1,2,3-Trichloropropane	mg/l	4.64	0.00	.05	92.8	48-148	L347305-03	WG364286
1,2,3-Trimethylbenzene	mg/l	4.51	0.00	.05	90.3	36-141	L347305-03	WG364286
1,2,4-Trichlorobenzene	mg/l	4.73	0.00	.05	94.6	27-142	L347305-03	WG364286
1,2,4-Trimethylbenzene	mg/l	4.53	0.00	.05	90.5	29-153	L347305-03	WG364286
1,2-Dibromo-3-Chloropropane	mg/l	4.47	0.00	.05	89.5	37-148	L347305-03	WG364286
1,2-Dibromoethane	mg/l	4.53	0.00	.05	90.7	41-149	L347305-03	WG364286
1,2-Dichlorobenzene	mg/l	4.80	0.00	.05	96.0	40-139	L347305-03	WG364286
1,2-Dichloroethane	mg/l	4.31	0.00	.05	86.2	29-167	L347305-03	WG364286
1,2-Dichloropropane	mg/l	4.07	0.00	.05	81.4	39-148	L347305-03	WG364286
1,3,5-Trimethylbenzene	mg/l	4.48	0.00	.05	89.5	33-149	L347305-03	WG364286
1,3-Dichlorobenzene	mg/l	4.30	0.00	.05	86.0	32-148	L347305-03	WG364286
1,3-Dichloropropane	mg/l	4.27	0.00	.05	85.4	44-142	L347305-03	WG364286
1,4-Dichlorobenzene	mg/l	4.28	0.00	.05	85.6	32-136	L347305-03	WG364286
2,2-Dichloropropane	mg/l	4.91	0.00	.05	98.2	14-158	L347305-03	WG364286
2-Butanone (MEK)	mg/l	26.6	0.00	.25	106.	32-151	L347305-03	WG364286
2-Chloroethyl vinyl ether	mg/l	24.1	0.00	.25	96.4	0-175	L347305-03	WG364286
2-Chlorotoluene	mg/l	4.30	0.00	.05	85.9	35-147	L347305-03	WG364286
4-Chlorotoluene	mg/l	4.38	0.00	.05	87.6	33-147	L347305-03	WG364286
4-Methyl-2-pentanone (MIBK)	mg/l	28.2	0.00	.25	113.	40-160	L347305-03	WG364286
Acetone	mg/l	23.2	0.00	.25	92.6	25-157	L347305-03	WG364286
Acrolein	mg/l	22.7	0.00	.25	90.7	0-179	L347305-03	WG364286
Acrylonitrile	mg/l	23.7	0.00	.25	94.7	37-162	L347305-03	WG364286
Benzene	mg/l	4.17	0.00	.05	83.3	16-158	L347305-03	WG364286
Bromobenzene	mg/l	4.24	0.00	.05	84.7	37-147	L347305-03	WG364286
Bromodichloromethane	mg/l	4.73	0.00	.05	94.6	45-147	L347305-03	WG364286
Bromoform	mg/l	4.62	0.00	.05	92.5	38-152	L347305-03	WG364286
Bromomethane	mg/l	3.98	0.00	.05	79.7	0-191	L347305-03	WG364286
Carbon tetrachloride	mg/l	4.17	0.00	.05	83.4	22-168	L347305-03	WG364286
Chlorobenzene	mg/l	4.19	0.00	.05	83.9	33-148	L347305-03	WG364286
Chlorodibromomethane	mg/l	5.57	0.00	.05	111.	48-151	L347305-03	WG364286
Chloroethane	mg/l	4.01	0.00	.05	80.2	4-176	L347305-03	WG364286
Chloroform	mg/l	4.20	0.00	.05	83.9	37-147	L347305-03	WG364286
Chloromethane	mg/l	3.51	0.00	.05	70.1	10-174	L347305-03	WG364286
cis-1,2-Dichloroethene	mg/l	4.12	0.00	.05	82.4	29-156	L347305-03	WG364286
cis-1,3-Dichloropropene	mg/l	4.90	0.00	.05	98.0	35-148	L347305-03	WG364286
Di-isopropyl ether	mg/l	4.35	0.00	.05	87.0	39-160	L347305-03	WG364286
Dibromomethane	mg/l	4.50	0.00	.05	90.1	36-152	L347305-03	WG364286
Dichlorodifluoromethane	mg/l	3.72	0.00	.05	74.3	0-200	L347305-03	WG364286
Ethylbenzene	mg/l	4.35	0.00	.05	87.0	29-150	L347305-03	WG364286
Hexachlorobutadiene	mg/l	4.89	0.00	.05	97.7	28-144	L347305-03	WG364286
Isopropylbenzene	mg/l	4.52	0.00	.05	90.3	35-147	L347305-03	WG364286
Methyl tert-butyl ether	mg/l	4.45	0.00	.05	89.1	24-167	L347305-03	WG364286
Methylene Chloride	mg/l	3.98	0.00	.05	79.5	23-151	L347305-03	WG364286
n-Butylbenzene	mg/l	4.87	0.00	.05	97.3	22-151	L347305-03	WG364286
n-Propylbenzene	mg/l	4.38	0.00	.05	87.7	26-150	L347305-03	WG364286
Naphthalene	mg/l	5.61	0.00	.05	112.	24-160	L347305-03	WG364286
p-Isopropyltoluene	mg/l	4.65	0.00	.05	92.9	28-151	L347305-03	WG364286
sec-Butylbenzene	mg/l	4.56	0.00	.05	91.2	32-149	L347305-03	WG364286
Styrene	mg/l	4.61	0.00	.05	92.2	38-149	L347305-03	WG364286
tert-Butylbenzene	mg/l	4.56	0.00	.05	91.2	36-149	L347305-03	WG364286
Tetrachloroethene	mg/l	6.42	2.60	.05	76.3	13-157	L347305-03	WG364286
Toluene	mg/l	4.43	0.00	.05	88.6	22-152	L347305-03	WG364286
trans-1,2-Dichloroethene	mg/l	3.88	0.00	.05	77.6	11-160	L347305-03	WG364286

Confidential Business Information

00035513

ENVIRONMENTAL SCIENCE CORP.

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Est. 1970

Hart Crowser - Portland, OR
Leon Lahiere
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Lake Oswego, OR 97035

Quality Assurance Report
Level II

L347487

June 04, 2008

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
trans-1,3-Dichloropropene	mg/l	4.94	0.00	.05	98.7	33-153	L347305-03	WG364286
Trichloroethene	mg/l	4.21	0.00	.05	84.1	18-163	L347305-03	WG364286
Trichlorofluoromethane	mg/l	3.96	0.00	.05	79.1	10-177	L347305-03	WG364286
Vinyl chloride	mg/l	3.73	0.00	.05	74.7	0-179	L347305-03	WG364286
Xylenes, Total	mg/l	13.0	0.00	.15	86.8	27-151	L347305-03	WG364286
Gasoline Range Organics-NWTPH	mg/l	4.58	0.00	5.5	83.3	58-122	L347487-06	WG364332
1,1,1,2-Tetrachloroethane	mg/l	2.82	0.00	.05	113.	45-152	L347242-20	WG364471
1,1,1-Trichloroethane	mg/l	2.58	0.00	.05	103.	31-161	L347242-20	WG364471
1,1,2,2-Tetrachloroethane	mg/l	2.17	0.00	.05	86.7	49-149	L347242-20	WG364471
1,1,2-Trichloroethane	mg/l	2.25	0.00	.05	90.0	46-145	L347242-20	WG364471
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	2.30	0.00	.05	92.1	14-168	L347242-20	WG364471
1,1-Dichloroethane	mg/l	2.42	0.00	.05	96.7	30-159	L347242-20	WG364471
1,1-Dichloroethene	mg/l	2.95	0.00	.05	118.	10-162	L347242-20	WG364471
1,1-Dichloropropene	mg/l	2.20	0.00	.05	87.9	14-162	L347242-20	WG364471
1,2,3-Trichlorobenzene	mg/l	2.35	0.00	.05	93.9	32-143	L347242-20	WG364471
1,2,3-Trichloropropane	mg/l	2.10	0.00	.05	84.1	48-148	L347242-20	WG364471
1,2,3-Trimethylbenzene	mg/l	2.21	0.0033	.05	88.1	36-141	L347242-20	WG364471
1,2,4-Trichlorobenzene	mg/l	2.42	0.0057	.05	96.6	27-142	L347242-20	WG364471
1,2,4-Trimethylbenzene	mg/l	2.14	0.0027	.05	85.5	29-153	L347242-20	WG364471
1,2-Dibromo-3-Chloropropane	mg/l	2.05	0.00	.05	82.0	37-148	L347242-20	WG364471
1,2-Dibromoethane	mg/l	2.16	0.00	.05	86.3	41-149	L347242-20	WG364471
1,2-Dichlorobenzene	mg/l	2.34	0.00	.05	93.5	40-139	L347242-20	WG364471
1,2-Dichloroethane	mg/l	2.27	0.00	.05	90.9	29-167	L347242-20	WG364471
1,2-Dichloropropane	mg/l	2.23	0.00	.05	89.3	39-148	L347242-20	WG364471
1,3,5-Trimethylbenzene	mg/l	2.15	0.0026	.05	86.0	33-149	L347242-20	WG364471
1,3-Dichlorobenzene	mg/l	2.12	0.00	.05	84.9	32-148	L347242-20	WG364471
1,3-Dichloropropane	mg/l	2.12	0.0068	.05	84.3	44-142	L347242-20	WG364471
1,4-Dichlorobenzene	mg/l	2.12	0.00	.05	84.7	32-136	L347242-20	WG364471
2,2-Dichloropropane	mg/l	2.95	0.00	.05	118.	14-158	L347242-20	WG364471
2-Butanone (MEK)	mg/l	11.2	0.00	.25	89.5	32-151	L347242-20	WG364471
2-Chloroethyl vinyl ether	mg/l	10.8	0.00	.25	86.8	0-175	L347242-20	WG364471
2-Chlorotoluene	mg/l	2.06	0.0033	.05	82.3	35-147	L347242-20	WG364471
4-Chlorotoluene	mg/l	2.09	0.0025	.05	83.4	33-147	L347242-20	WG364471
4-Methyl-2-pentanone (MIBK)	mg/l	11.5	0.00	.25	91.7	40-160	L347242-20	WG364471
Acetone	mg/l	10.0	0.00	.25	80.3	25-157	L347242-20	WG364471
Acrolein	mg/l	11.1	0.00	.25	88.8	0-179	L347242-20	WG364471
Acrylonitrile	mg/l	10.4	0.00	.25	82.9	37-162	L347242-20	WG364471
Benzene	mg/l	2.20	0.00	.05	87.9	16-158	L347242-20	WG364471
Bromobenzene	mg/l	2.11	0.0062	.05	84.0	37-147	L347242-20	WG364471
Bromodichloromethane	mg/l	2.59	0.00	.05	104.	45-147	L347242-20	WG364471
Bromoform	mg/l	2.37	0.00	.05	94.6	38-152	L347242-20	WG364471
Bromomethane	mg/l	2.54	0.00	.05	102.	0-191	L347242-20	WG364471
Carbon tetrachloride	mg/l	2.74	0.00	.05	110.	22-168	L347242-20	WG364471
Chlorobenzene	mg/l	2.15	0.00	.05	86.1	33-148	L347242-20	WG364471
Chlorodibromomethane	mg/l	2.84	0.00	.05	114.	48-151	L347242-20	WG364471
Chloroethane	mg/l	2.34	0.00	.05	93.7	4-176	L347242-20	WG364471
Chloroform	mg/l	2.22	0.00	.05	88.6	37-147	L347242-20	WG364471
Chloromethane	mg/l	2.12	0.00	.05	84.9	10-174	L347242-20	WG364471
cis-1,2-Dichloroethene	mg/l	2.25	0.00	.05	89.9	29-156	L347242-20	WG364471
cis-1,3-Dichloropropene	mg/l	2.50	0.00	.05	99.8	35-148	L347242-20	WG364471
Di-isopropyl ether	mg/l	2.13	0.00	.05	85.3	39-160	L347242-20	WG364471
Dibromomethane	mg/l	2.40	0.00	.05	96.1	36-152	L347242-20	WG364471
Dichlorodifluoromethane	mg/l	1.94	0.00	.05	77.6	0-200	L347242-20	WG364471
Ethylbenzene	mg/l	2.17	0.00	.05	86.6	29-150	L347242-20	WG364471
Hexachlorobutadiene	mg/l	2.63	0.00	.05	105.	28-144	L347242-20	WG364471
Isopropylbenzene	mg/l	2.33	0.0015	.05	93.3	35-147	L347242-20	WG364471
Methyl tert-butyl ether	mg/l	2.09	0.00	.05	83.5	24-167	L347242-20	WG364471
Methylene Chloride	mg/l	2.16	0.00	.05	86.3	23-151	L347242-20	WG364471

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Lake Oswego, OR 97035

Quality Assurance Report
Level II

L347487

June 04, 2008

n-Butylbenzene	mg/l	2.34	0.0021	.05	93.5	22-151	L347242-20	WG364471

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
n-Propylbenzene	mg/l	2.11	0.0014	.05	84.4	26-150	L347242-20	WG364471
Naphthalene	mg/l	2.46	0.0032	.05	98.3	24-160	L347242-20	WG364471
p-Isopropyltoluene	mg/l	2.21	0.0021	.05	88.4	28-151	L347242-20	WG364471
sec-Butylbenzene	mg/l	2.22	0.0025	.05	88.6	32-149	L347242-20	WG364471
Styrene	mg/l	2.19	0.00	.05	87.5	38-149	L347242-20	WG364471
tert-Butylbenzene	mg/l	2.24	0.0018	.05	89.4	36-149	L347242-20	WG364471
Tetrachloroethene	mg/l	2.19	0.00	.05	87.7	13-157	L347242-20	WG364471
Toluene	mg/l	2.22	0.00	.05	88.7	22-152	L347242-20	WG364471
trans-1,2-Dichloroethene	mg/l	2.20	0.00	.05	88.2	11-160	L347242-20	WG364471
trans-1,3-Dichloropropene	mg/l	2.53	0.00	.05	101.	33-153	L347242-20	WG364471
Trichloroethene	mg/l	6.47	3.40	.05	123.	18-163	L347242-20	WG364471
Trichlorofluoromethane	mg/l	2.15	0.00	.05	85.8	10-177	L347242-20	WG364471
Vinyl chloride	mg/l	2.28	0.00	.05	91.1	0-179	L347242-20	WG364471
Xylenes, Total	mg/l	6.47	0.00	.15	86.3	27-151	L347242-20	WG364471

Matrix Spike Duplicate

Analyte	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Gasoline Range Organics-NWTPH	mg/l	6.07	5.57	8.61	20	110.	L347265-03	WG364087
1,1,1,2-Tetrachloroethane	mg/l	0.614	0.666	8.16	21	123.	L347297-16	WG364159
1,1,1-Trichloroethane	mg/l	0.526	0.541	2.86	23	105.	L347297-16	WG364159
1,1,2,2-Tetrachloroethane	mg/l	0.795	0.853	7.07	22	159.	L347297-16	WG364159
1,1,2-Trichloroethane	mg/l	0.695	0.758	8.62	20	139.	L347297-16	WG364159
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.683	0.701	2.60	24	137.	L347297-16	WG364159
1,1-Dichloroethane	mg/l	0.516	0.520	0.870	21	103.	L347297-16	WG364159
1,1-Dichloroethene	mg/l	0.542	0.548	1.22	23	108.	L347297-16	WG364159
1,1-Dichloropropene	mg/l	0.556	0.569	2.17	23	111.	L347297-16	WG364159
1,2,3-Trichlorobenzene	mg/l	0.802	0.805	0.381	33	160.	L347297-16	WG364159
1,2,3-Trichloropropane	mg/l	0.746	0.794	6.19	23	149.	L347297-16	WG364159
1,2,3-Trimethylbenzene	mg/l	0.724	0.715	1.22	25	143.	L347297-16	WG364159
1,2,4-Trichlorobenzene	mg/l	0.806	0.799	0.887	30	161.	L347297-16	WG364159
1,2,4-Trimethylbenzene	mg/l	0.558	0.608	8.57	27	109.	L347297-16	WG364159
1,2-Dibromo-3-Chloropropane	mg/l	1.05	1.05	0.188	27	210.	L347297-16	WG364159
1,2-Dibromoethane	mg/l	0.718	0.773	7.34	21	144.	L347297-16	WG364159
1,2-Dichlorobenzene	mg/l	0.803	0.793	1.22	23	161.	L347297-16	WG364159
1,2-Dichloroethane	mg/l	0.595	0.603	1.33	21	119.	L347297-16	WG364159
1,2-Dichloropropane	mg/l	0.665	0.666	0.161	20	133.	L347297-16	WG364159
1,3,5-Trimethylbenzene	mg/l	0.539	0.588	8.62	26	108.	L347297-16	WG364159
1,3-Dichlorobenzene	mg/l	0.586	0.629	7.16	24	117.	L347297-16	WG364159
1,3-Dichloropropane	mg/l	0.662	0.712	7.29	20	132.	L347297-16	WG364159
1,4-Dichlorobenzene	mg/l	0.741	0.726	2.02	23	148.	L347297-16	WG364159
2,2-Dichloropropane	mg/l	0.533	0.551	3.46	23	107.	L347297-16	WG364159
2-Butanone (MEK)	mg/l	3.56	3.56	0.0438	26	142.	L347297-16	WG364159
2-Chloroethyl vinyl ether	mg/l	3.93	3.86	1.77	75	157.	L347297-16	WG364159
2-Chlorotoluene	mg/l	0.539	0.587	8.48	24	108.	L347297-16	WG364159
4-Chlorotoluene	mg/l	0.568	0.616	8.00	25	114.	L347297-16	WG364159
4-Methyl-2-pentanone (MIBK)	mg/l	4.65	4.56	1.99	28	186.	L347297-16	WG364159
Acetone	mg/l	3.31	3.32	0.138	26	133.	L347297-16	WG364159
Acrolein	mg/l	7.44	7.19	3.40	39	298.	L347297-16	WG364159
Acrylonitrile	mg/l	3.94	3.93	0.270	24	158.	L347297-16	WG364159
Benzene	mg/l	0.533	0.538	0.861	21	107.	L347297-16	WG364159
Bromobenzene	mg/l	0.580	0.630	8.20	23	116.	L347297-16	WG364159
Bromodichloromethane	mg/l	0.653	0.654	0.0189	20	131.	L347297-16	WG364159
Bromoform	mg/l	0.804	0.873	8.24	20	161.	L347297-16	WG364159
Bromomethane	mg/l	0.334	0.306	8.72	35	66.8	L347297-16	WG364159
Carbon tetrachloride	mg/l	0.515	0.525	1.92	24	103.	L347297-16	WG364159
Chlorobenzene	mg/l	0.574	0.622	8.04	22	115.	L347297-16	WG364159
Chlorodibromomethane	mg/l	0.717	0.774	7.56	21	143.	L347297-16	WG364159

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Quality Assurance Report
Level II

L347487

June 04, 2008

Chloroethane	mg/l	0.377	0.409	8.09	27	75.5	L347297-16	WG364159

Matrix Spike Duplicate

Analyte	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chloroform	mg/l	0.518	0.526	1.55	21	104.	L347297-16	WG364159
Chloromethane	mg/l	0.543	0.230	81.2	28	109.	L347297-16	WG364159
cis-1,2-Dichloroethene	mg/l	0.539	0.551	2.22	22	108.	L347297-16	WG364159
cis-1,3-Dichloropropene	mg/l	0.707	0.709	0.198	21	141.	L347297-16	WG364159
Di-isopropyl ether	mg/l	0.714	0.716	0.161	21	143.	L347297-16	WG364159
Dibromomethane	mg/l	0.689	0.681	1.11	20	138.	L347297-16	WG364159
Dichlorodifluoromethane	mg/l	0.396	0.394	0.618	26	79.2	L347297-16	WG364159
Ethylbenzene	mg/l	0.558	0.606	8.25	24	108.	L347297-16	WG364159
Hexachlorobutadiene	mg/l	0.695	0.697	0.195	33	139.	L347297-16	WG364159
Isopropylbenzene	mg/l	0.570	0.617	7.87	25	114.	L347297-16	WG364159
Methyl tert-butyl ether	mg/l	0.760	0.763	0.394	22	152.	L347297-16	WG364159
Methylene Chloride	mg/l	0.463	0.442	4.61	21	92.6	L347297-16	WG364159
n-Butylbenzene	mg/l	0.751	0.748	0.452	29	150.	L347297-16	WG364159
n-Propylbenzene	mg/l	0.557	0.609	8.87	25	109.	L347297-16	WG364159
Naphthalene	mg/l	0.889	0.877	1.37	37	178.	L347297-16	WG364159
p-Isopropyltoluene	mg/l	0.557	0.607	8.65	27	111.	L347297-16	WG364159
sec-Butylbenzene	mg/l	0.560	0.611	8.61	26	112.	L347297-16	WG364159
Styrene	mg/l	0.630	0.677	7.22	23	126.	L347297-16	WG364159
tert-Butylbenzene	mg/l	0.543	0.592	8.52	26	109.	L347297-16	WG364159
Tetrachloroethene	mg/l	0.556	0.605	8.45	24	111.	L347297-16	WG364159
Toluene	mg/l	0.580	0.578	0.261	22	116.	L347297-16	WG364159
trans-1,2-Dichloroethene	mg/l	0.531	0.538	1.40	23	106.	L347297-16	WG364159
trans-1,3-Dichloropropene	mg/l	0.730	0.714	2.23	22	146.	L347297-16	WG364159
Trichloroethene	mg/l	0.579	0.582	0.485	21	116.	L347297-16	WG364159
Trichlorofluoromethane	mg/l	0.460	0.477	3.56	24	92.0	L347297-16	WG364159
Vinyl chloride	mg/l	0.328	0.346	5.24	26	65.6	L347297-16	WG364159
Xylenes, Total	mg/l	1.64	1.76	7.45	23	109.	L347297-16	WG364159
Gasoline Range Organics-NWTPH	mg/l	5.87	5.85	0.281	20	107.	L347433-09	WG364190
1,1,1,2-Tetrachloroethane	mg/l	5.27	5.29	0.271	21	105.	L347305-03	WG364286
1,1,1-Trichloroethane	mg/l	4.45	4.55	2.28	23	89.0	L347305-03	WG364286
1,1,2,2-Tetrachloroethane	mg/l	5.09	4.93	3.12	22	102.	L347305-03	WG364286
1,1,2-Trichloroethane	mg/l	4.69	4.70	0.116	20	93.8	L347305-03	WG364286
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	3.58	3.96	10.0	24	71.6	L347305-03	WG364286
1,1-Dichloroethane	mg/l	4.16	4.25	2.08	21	83.3	L347305-03	WG364286
1,1-Dichloroethene	mg/l	3.58	3.72	3.91	23	71.6	L347305-03	WG364286
1,1-Dichloropropene	mg/l	3.81	3.94	3.38	23	76.1	L347305-03	WG364286
1,2,3-Trichlorobenzene	mg/l	4.92	4.79	2.58	33	98.3	L347305-03	WG364286
1,2,3-Trichloropropane	mg/l	4.75	4.64	2.25	23	94.9	L347305-03	WG364286
1,2,3-Trimethylbenzene	mg/l	4.45	4.51	1.50	25	88.9	L347305-03	WG364286
1,2,4-Trichlorobenzene	mg/l	4.83	4.73	2.17	30	96.6	L347305-03	WG364286
1,2,4-Trimethylbenzene	mg/l	4.70	4.53	3.68	27	93.9	L347305-03	WG364286
1,2-Dibromo-3-Chloropropane	mg/l	4.63	4.47	3.37	27	92.5	L347305-03	WG364286
1,2-Dibromoethane	mg/l	4.63	4.53	1.98	21	92.5	L347305-03	WG364286
1,2-Dichlorobenzene	mg/l	4.65	4.80	3.21	23	92.9	L347305-03	WG364286
1,2-Dichloroethane	mg/l	4.22	4.31	2.12	21	84.4	L347305-03	WG364286
1,2-Dichloropropane	mg/l	3.97	4.07	2.40	20	79.5	L347305-03	WG364286
1,3,5-Trimethylbenzene	mg/l	4.61	4.48	3.04	26	92.3	L347305-03	WG364286
1,3-Dichlorobenzene	mg/l	4.50	4.30	4.51	24	89.9	L347305-03	WG364286
1,3-Dichloropropane	mg/l	4.48	4.27	4.71	20	89.5	L347305-03	WG364286
1,4-Dichlorobenzene	mg/l	4.29	4.28	0.321	23	85.8	L347305-03	WG364286
2,2-Dichloropropane	mg/l	4.79	4.91	2.43	23	95.8	L347305-03	WG364286
2-Butanone (MEK)	mg/l	27.2	26.6	2.37	26	109.	L347305-03	WG364286
2-Chloroethyl vinyl ether	mg/l	23.3	24.1	3.20	75	93.4	L347305-03	WG364286
2-Chlorotoluene	mg/l	4.38	4.30	1.84	24	87.5	L347305-03	WG364286
4-Chlorotoluene	mg/l	4.52	4.38	3.11	25	90.3	L347305-03	WG364286
4-Methyl-2-pentanone (MIBK)	mg/l	27.1	28.2	4.17	28	108.	L347305-03	WG364286
Acetone	mg/l	23.2	23.2	0.218	26	92.8	L347305-03	WG364286

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Quality Assurance Report
Level II

L347487

June 04, 2008

Acrolein	mg/l	22.3	22.7	1.62	39	89.3	L347305-03	WG364286

Matrix Spike Duplicate

Analyte	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Acrylonitrile	mg/l	23.7	23.7	0.135	24	94.8	L347305-03	WG364286
Benzene	mg/l	3.99	4.17	4.21	21	79.9	L347305-03	WG364286
Bromobenzene	mg/l	4.38	4.24	3.35	23	87.6	L347305-03	WG364286
Bromodichloromethane	mg/l	4.79	4.73	1.35	20	95.9	L347305-03	WG364286
Bromoform	mg/l	4.60	4.62	0.401	20	92.1	L347305-03	WG364286
Bromomethane	mg/l	4.02	3.98	0.877	35	80.4	L347305-03	WG364286
Carbon tetrachloride	mg/l	4.57	4.17	9.26	24	91.5	L347305-03	WG364286
Chlorobenzene	mg/l	4.34	4.19	3.47	22	86.8	L347305-03	WG364286
Chlorodibromomethane	mg/l	5.43	5.57	2.41	21	109.	L347305-03	WG364286
Chloroethane	mg/l	3.68	4.01	8.53	27	73.6	L347305-03	WG364286
Chloroform	mg/l	4.09	4.20	2.57	21	81.8	L347305-03	WG364286
Chloromethane	mg/l	3.40	3.51	2.95	28	68.1	L347305-03	WG364286
cis-1,2-Dichloroethene	mg/l	4.05	4.12	1.71	22	81.0	L347305-03	WG364286
cis-1,3-Dichloropropene	mg/l	4.59	4.90	6.66	21	91.7	L347305-03	WG364286
Di-isopropyl ether	mg/l	4.34	4.35	0.312	21	86.7	L347305-03	WG364286
Dibromomethane	mg/l	4.51	4.50	0.0445	20	90.1	L347305-03	WG364286
Dichlorodifluoromethane	mg/l	3.70	3.72	0.385	26	74.0	L347305-03	WG364286
Ethylbenzene	mg/l	4.46	4.35	2.43	24	89.1	L347305-03	WG364286
Hexachlorobutadiene	mg/l	4.84	4.89	0.919	33	96.9	L347305-03	WG364286
Isopropylbenzene	mg/l	4.63	4.52	2.40	25	92.5	L347305-03	WG364286
Methyl tert-butyl ether	mg/l	4.54	4.45	1.96	22	90.8	L347305-03	WG364286
Methylene Chloride	mg/l	3.90	3.98	1.90	21	78.0	L347305-03	WG364286
n-Butylbenzene	mg/l	4.72	4.87	3.06	29	94.4	L347305-03	WG364286
n-Propylbenzene	mg/l	4.45	4.38	1.59	25	89.1	L347305-03	WG364286
Naphthalene	mg/l	5.73	5.61	1.97	37	115.	L347305-03	WG364286
p-Isopropyltoluene	mg/l	4.78	4.65	2.79	27	95.6	L347305-03	WG364286
sec-Butylbenzene	mg/l	4.73	4.56	3.60	26	94.6	L347305-03	WG364286
Styrene	mg/l	4.75	4.61	2.98	23	95.0	L347305-03	WG364286
tert-Butylbenzene	mg/l	4.73	4.56	3.63	26	94.5	L347305-03	WG364286
Tetrachloroethene	mg/l	6.53	6.42	1.81	24	78.7	L347305-03	WG364286
Toluene	mg/l	4.19	4.43	5.57	22	83.8	L347305-03	WG364286
trans-1,2-Dichloroethene	mg/l	3.60	3.88	7.47	23	72.0	L347305-03	WG364286
trans-1,3-Dichloropropene	mg/l	4.79	4.94	3.06	22	95.8	L347305-03	WG364286
Trichloroethene	mg/l	4.02	4.21	4.59	21	80.3	L347305-03	WG364286
Trichlorofluoromethane	mg/l	3.81	3.96	3.66	24	76.3	L347305-03	WG364286
Vinyl chloride	mg/l	3.33	3.73	11.4	26	66.6	L347305-03	WG364286
Xylenes, Total	mg/l	13.5	13.0	3.83	23	90.1	L347305-03	WG364286
Gasoline Range Organics-NWTPH	mg/l	4.43	4.58	3.45	20	80.5	L347487-06	WG364332
1,1,1,2-Tetrachloroethane	mg/l	2.85	2.82	1.27	21	114.	L347242-20	WG364471
1,1,1-Trichloroethane	mg/l	2.62	2.58	1.50	23	105.	L347242-20	WG364471
1,1,2,2-Tetrachloroethane	mg/l	2.25	2.17	3.52	22	89.8	L347242-20	WG364471
1,1,2-Trichloroethane	mg/l	2.33	2.25	3.49	20	93.2	L347242-20	WG364471
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	2.22	2.30	3.72	24	88.7	L347242-20	WG364471
1,1-Dichloroethane	mg/l	2.37	2.42	2.20	21	94.6	L347242-20	WG364471
1,1-Dichloroethene	mg/l	2.86	2.95	3.15	23	114.	L347242-20	WG364471
1,1-Dichloropropene	mg/l	2.15	2.20	2.31	23	85.9	L347242-20	WG364471
1,2,3-Trichlorobenzene	mg/l	2.36	2.35	0.688	33	94.6	L347242-20	WG364471
1,2,3-Trichloropropane	mg/l	2.24	2.10	6.51	23	89.8	L347242-20	WG364471
1,2,3-Trimethylbenzene	mg/l	2.23	2.21	0.992	25	89.0	L347242-20	WG364471
1,2,4-Trichlorobenzene	mg/l	2.45	2.42	1.18	30	97.8	L347242-20	WG364471
1,2,4-Trimethylbenzene	mg/l	2.26	2.14	5.28	27	90.2	L347242-20	WG364471
1,2-Dibromo-3-Chloropropane	mg/l	2.02	2.05	1.35	27	80.9	L347242-20	WG364471
1,2-Dibromoethane	mg/l	2.21	2.16	2.50	21	88.5	L347242-20	WG364471
1,2-Dichlorobenzene	mg/l	2.34	2.34	0.132	23	93.6	L347242-20	WG364471
1,2-Dichloroethane	mg/l	2.24	2.27	1.23	21	89.7	L347242-20	WG364471
1,2-Dichloropropane	mg/l	2.22	2.23	0.750	20	88.6	L347242-20	WG364471
1,3,5-Trimethylbenzene	mg/l	2.24	2.15	4.22	26	89.7	L347242-20	WG364471

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Quality Assurance Report
Level II

L347487

June 04, 2008

1,3-Dichlorobenzene	mg/l	2.19	2.12	3.13	24	87.6	L347242-20	WG364471

		Matrix Spike Duplicate						
Analyte	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,3-Dichloropropane	mg/l	2.17	2.12	2.63	20	86.6	L347242-20	WG364471
1,4-Dichlorobenzene	mg/l	2.15	2.12	1.59	23	86.1	L347242-20	WG364471
2,2-Dichloropropane	mg/l	2.95	2.95	0.141	23	118.	L347242-20	WG364471
2-Butanone (MEK)	mg/l	11.3	11.2	1.44	26	90.8	L347242-20	WG364471
2-Chloroethyl vinyl ether	mg/l	10.4	10.8	4.60	75	82.9	L347242-20	WG364471
2-Chlorotoluene	mg/l	2.11	2.06	2.43	24	84.4	L347242-20	WG364471
4-Chlorotoluene	mg/l	2.22	2.09	5.90	25	88.5	L347242-20	WG364471
4-Methyl-2-pentanone (MIBK)	mg/l	11.8	11.5	3.14	28	94.6	L347242-20	WG364471
Acetone	mg/l	10.2	10.0	1.38	26	81.4	L347242-20	WG364471
Acrolein	mg/l	11.7	11.1	5.12	39	93.5	L347242-20	WG364471
Acrylonitrile	mg/l	10.6	10.4	2.47	24	85.0	L347242-20	WG364471
Benzene	mg/l	2.17	2.20	1.37	21	86.7	L347242-20	WG364471
Bromobenzene	mg/l	2.17	2.11	2.96	23	86.5	L347242-20	WG364471
Bromodichloromethane	mg/l	2.61	2.59	0.627	20	104.	L347242-20	WG364471
Bromoform	mg/l	2.37	2.37	0.206	20	94.8	L347242-20	WG364471
Bromomethane	mg/l	2.47	2.54	2.81	35	98.9	L347242-20	WG364471
Carbon tetrachloride	mg/l	2.74	2.74	0.267	24	110.	L347242-20	WG364471
Chlorobenzene	mg/l	2.19	2.15	1.88	22	87.7	L347242-20	WG364471
Chlorodibromomethane	mg/l	2.83	2.84	0.410	21	113.	L347242-20	WG364471
Chloroethane	mg/l	2.32	2.34	1.14	27	92.6	L347242-20	WG364471
Chloroform	mg/l	2.18	2.22	1.42	21	87.4	L347242-20	WG364471
Chloromethane	mg/l	2.07	2.12	2.55	28	82.8	L347242-20	WG364471
cis-1,2-Dichloroethene	mg/l	2.21	2.25	1.87	22	88.2	L347242-20	WG364471
cis-1,3-Dichloropropene	mg/l	2.51	2.50	0.459	21	100.	L347242-20	WG364471
Di-isopropyl ether	mg/l	2.16	2.13	1.10	21	86.2	L347242-20	WG364471
Dibromomethane	mg/l	2.37	2.40	1.52	20	94.7	L347242-20	WG364471
Dichlorodifluoromethane	mg/l	1.98	1.94	1.74	26	79.0	L347242-20	WG364471
Ethylbenzene	mg/l	2.21	2.17	1.87	24	88.2	L347242-20	WG364471
Hexachlorobutadiene	mg/l	2.72	2.63	3.61	33	109.	L347242-20	WG364471
Isopropylbenzene	mg/l	2.40	2.33	2.93	25	96.1	L347242-20	WG364471
Methyl tert-butyl ether	mg/l	2.13	2.09	2.09	22	85.3	L347242-20	WG364471
Methylene Chloride	mg/l	2.09	2.16	2.98	21	83.7	L347242-20	WG364471
n-Butylbenzene	mg/l	2.35	2.34	0.615	29	94.0	L347242-20	WG364471
n-Propylbenzene	mg/l	2.19	2.11	3.55	25	87.5	L347242-20	WG364471
Naphthalene	mg/l	2.53	2.46	2.68	37	101.	L347242-20	WG364471
p-Isopropyltoluene	mg/l	2.33	2.21	5.19	27	93.1	L347242-20	WG364471
sec-Butylbenzene	mg/l	2.33	2.22	4.79	26	93.0	L347242-20	WG364471
Styrene	mg/l	2.29	2.19	4.36	23	91.4	L347242-20	WG364471
tert-Butylbenzene	mg/l	2.32	2.24	3.55	26	92.6	L347242-20	WG364471
Tetrachloroethene	mg/l	2.21	2.19	0.680	24	88.3	L347242-20	WG364471
Toluene	mg/l	2.19	2.22	1.39	22	87.5	L347242-20	WG364471
trans-1,2-Dichloroethene	mg/l	2.15	2.20	2.48	23	86.0	L347242-20	WG364471
trans-1,3-Dichloropropene	mg/l	2.50	2.53	1.00	22	100.	L347242-20	WG364471
Trichloroethene	mg/l	6.49	6.47	0.310	21	124.	L347242-20	WG364471
Trichlorofluoromethane	mg/l	2.12	2.15	1.24	24	84.8	L347242-20	WG364471
Vinyl chloride	mg/l	2.26	2.28	0.846	26	90.4	L347242-20	WG364471
Xylenes, Total	mg/l	6.66	6.47	2.84	23	88.8	L347242-20	WG364471

Batch number /Run number / Sample number cross reference

WG363550: R376164: L347487-01 02 03 04 06 07 08
WG363578: R376705: L347487-01 02 03 04 05 06 07 08
WG364087: R376905: L347487-01 02
WG364159: R377587: L347487-01 03 04 05 06 07 08
WG363909: R377965: L347487-05
WG364190: R378004: L347487-03 04 05
WG364286: R378524: L347487-09
WG364332: R379064: L347487-06 07 08

Confidential Business Information

00035518

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hart Crowser - Portland, OR
Leon Lahiere
Five Centerpointe Dr, Ste 240

Lake Oswego, OR 97035

Quality Assurance Report
Level II

L347487

June 04, 2008

WG364471: R379604: L347487-02

* * Calculations are performed prior to rounding of reported values .

Confidential Business Information

00035519

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hart Crowser - Portland, OR
Leon Lahiere
Five Centerpointe Dr, Ste 240

Lake Oswego, OR 97035

Quality Assurance Report
Level II

L347487

June 04, 2008

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Confidential Business Information

00035520

Hart Crowser - Portland, OR

Five Centerpointe Dr, Ste 240
Lake Oswego,OR 97035

Alternate billing information:

Chain of Custody
Page ___ of ___

Prepared by:
ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (800) 767-5859
FAX (615) 758-5859

#4

Report to: Leon Lahiere
Email: leon.lahiere@hartcrowser.co
Project Description: Brix Maritime
City/State Collected: Portland, OR
Phone: (503) 620-7284
FAX:
Client Project #: 15634-00/Task 05
Lab Project #: HARCROPOR-15634
Collected by (print): Chris Martin
Site/Facility ID#:
P.O.#:
Collected by (signature): [signature]
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed: 6-6-08
Email? ___No X Yes
FAX? ___No ___Yes

(lab use only)
Acctnum: HARCROPOR
Template/Prelogin: T46824/ P244167
Cooler #: 5-8 KW
Shipped Via: FedEX Ground

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	NWTPHDX 1L-Amb-Add HCl	NWTPHGX 40mlAmb HCl	SV8270PAHSIM 1L-Amb NoPres	V8260 40mlAmb-HCl	V8260- Trip Blank 40mlAmb-HCl-Blk			Remarks/Contaminant	Sample # (lab only)
BM052308-01	NA	GW	NA	5-23-08	10:05	9	X	X	X	X					L397487-01
BM052308-02	↓	GW	↓	↓	10:40	9	X	X	X	X					02
BM052308-03	↓	GW	↓	↓	11:15	9	X	X	X	X					03
BM052308-04	↓	GW	↓	↓	12:15	9	X	X	X	X					04
BM052308-05	↓	GW	↓	↓	13:25	9	X	X	X	X					05
BM052308-06	↓	GW	↓	↓	14:00	9	X	X	X	X					06
BM052308-07	↓	GW	↓	↓	14:30	9	X	X	X	X					07
BM052308-08	↓	GW	↓	↓	15:00	9	X	X	X	X					08
		~~GW~~				4	X	X							

*Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____
Flow _____ Other _____

Remarks:

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via:	Condition: (lab use only)
[signature]	5-27-08		9669 7434 2087 / 9669 7434 2124	☒ FedEx ☐ Courier ☐ UPS / 9669 7434 2102	OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.8 / Bottles Received: 72+4+B	COC Seal Intact: ___Y ___N ✓NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/28/08 / Time: 0900	pH Checked: 12 / NCF:

9669 7434 2058

Confidential Business Information

00035521

Hart Crowser - Portland, OR

Five Centerpointe Dr, Ste 240
Lake Oswego,OR 97035

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody
Page ___ of ___

Prepared by:
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12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (800) 767-5859
FAX (615) 758-5859

Report to: Leon Lahiere
Email: leon.lahiere@hartcrowser.co
Project Description: Brix Maritime
City/State Collected: Portland, OR
Phone: (503) 620-7284
FAX:
Client Project #: 15634-00/Task 05
Lab Project #: HARCROPOR-15634
Collected by (print):
Site/Facility ID#:
P.O.#:
Collected by (signature):
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed
Email? ___No X Yes
FAX? ___No ___Yes

Acctnum: HARCROPOR (lab use only)
Template/Prelogin: T46824/ P244167
Cooler #: 5-8 KW
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	NWTPHDX 1L-Amb-Add HCl	NWTPHGX 40mlAmb HCl	SV8270PAHSIM 1L-Amb NoPres	V8260 40mlAmb-HCl	V8260 - Trip Blank 40mlAmb-HCl-Blk			Remarks/Contaminant	Sample # (lab only)
TRIP BLANK		GW				1					X				L347187-09

*Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐	Condition: (lab use only)
	5-27-08				OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.5 Bottles Received: 72+4	COC Seal Intact: ___Y ___N ✓NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/28/08 Time: 0900	pH Checked: NCF:

Confidential Business Information

00035522

Material Safety Data Sheet (MSDS)

American National Standard ANSI Z400-1-2004; Date Prepared: April 15, 2005

Section 1 Chemical Product and Company Identification

Identity: Corroseal® Rust Converter and Copolymer Metal Primer

Globally Harmonized Tariff Classification Code (GHS): 3810.10

Manufacturers Name:	Joan T. Geiger Enterprises, Inc. Corroseal Division	Emergency Telephone Number 800-237-1573
Address:	P.O. Box 788 Coupeville, Washington 98239 U.S.A. www.corroseal.com	Information Telephone Number M-Sat 6:00 AM- 3:00 PM Pacific Time (10) (360) 678-1905 E-mail: info@corroseal.com

---

Section 2 - Hazards Identification

Appearance and Odor:	Thin milky white / beige liquid with mild odor.
Fire and Explosion Hazards:	NONE - NONFLAMMABLE
Oxidizer Hazards:	NONE
Reactivity Hazards:	NONE
Pressurized Container:	NONE
Toxic or Poisonous:	NONE
Danger When Inhaled:	NONE - non corrosive, non depressant, no respiratory hazard.
Skin or Eye Irritation:	
Cause Burns:	Skin-Acute contact may cause irritation. Prolonged contact may cause burns. Chronic exposure may cause dermatitis.
Ingestion;	May cause headache, nausea, abdominal pains. Call a physician. Vomiting may be induced if there is no danger of aspiration.
Eye contact:	May cause irritation and redness. Chronic exposure may cause conjunctivitis.
First aid:	Eyes; Flush with fresh water for at least 30 minutes. Skin; Wash with soap and water. Remove wetted clothing.

Section 3: Composition / Information On Ingredients

Hazardous Components:	NONE
Chemical Abstract Service (CAS) Registry numbers:	NONE

Section 4: First Aid Measures

Route(s) of Entry-	Inhalation? Yes as a mist. Skin - Yes Ingestion - Yes
Health Hazards:	Skin-Acute contact may cause irritation. Prolonged contact may cause burns. Chronic exposure may cause dermatitis. Ingestion may cause headache, nausea, abdominal pains.
Eye contact:	May cause irritation and redness. Chronic exposure may cause conjunctivitis.
Carcinogenicity:	NTP - No
IARC Monographs -	No
OSHA Regulated-	No

Control Measures:	
Respiratory Protection :	Not Required for most conditions. Use mist respirator in enclosed areas.
Ventilation	
Local Exhaust-	Not Required
Special Measures-	Not Required
Mechanical-	Not Required
Other control measures:	Not Required
Protective Gloves-	Use rubber gloves.
Eye Protection-	Use chemical splash goggles
Other Protective Clothing or Equipment-	Wear body covering clothing.
Work/Hygienic Practices:	Wash hands/exposed skin after use. Remove contaminated or wetted clothing.

Section 5: Fire Fighting Measures (See also Section 9: Physical and Chemical Properties)

Flammable properties:	
Unusual Fire and Explosion Hazards:	NONE - NON-FLAMMABLE
Extinguishing Media -	Latex emulsion - Not Flammable- Dry latex use water fog.
Special Fire Fighting Procedures -	None
Extinguishing Media:	
Protection of Firefighters:	Standard protective equipment and precautions.
Specific hazards arising from the chemical:	
Hazardous Decomposition or byproducts:	Carbon monoxide, organic acids and aldehydes.
Hazardous Polymerization:	Will Not Occur

Section 6: Accidental Release Measures

Personal precautions:	Avoid wetting clothing or excessive handling of wetted absorbent materials. Use rubber gloves. See Section 4: First Aid Measures - Control measures.
Methods of containment:	
Small spills-	Pick up with absorbent material and place in drum for disposal.
Large spills-	Divert to a holding area and let dry. Allow to dry and dispose of as non hazardous waste.
Methods for clean-up:	Clean up equipment and spills with soap and water before product dries. Remove dry spatter with lacquer thinner.
Other information:	No accidental release reporting is required.

There is a general need for Personal Protective Equipment (PPE). See Section 8 Exposure Controls/Personal Protection for instructions.

Section 7: Handling and Storage

Handling:	Do not splash or spill Corroseal® when pouring into plastic bucket or pan while preparing to apply. Avoid contact with skin and eyes. Avoid wetting clothing.

Spray only through clean, properly maintained compressor, air tanks, hoses, regulators and nozzles. Brushes or rollers should be clean and dry as wet applicators will dilute initial applications. Remove wet clothing. Wash thoroughly after use.

Storage: Store between 3° C (38° F) and 41° C (105° F). Avoid direct sunlight. Shelf life 2 years. Keep from freezing. Discard Corroseal® after freezing and after being stored in excessive heat. Store in closed nonmetallic containers. Do not return unused Corroseal® into storage containers, to avoid converting unused material.

Section 8: Exposure Controls / Personal Protection

Exposure guidelines: Hazardous Components-(Specific Chemical Identity, Common Name(s)
OSHA PEL N.E. ACTIH TLY N.E. Other Limits % N.E.
(N.E. - Not Established)

Engineering controls: No specific controls are needed to control exposures.
Ventilation controls: None required.

Personal protective equipment (PPE) - normal use and handling where the exposure potential has been determined:

Respiratory Protection : Not Required for most conditions. Wear OSHA specified respirator in enclosed areas.
Protective Gloves- Use rubber gloves.
Eye Protection- Use chemical splash goggles
Other Protective Clothing or Equipment- Wear body covering clothing.

Work/Hygienic Practices: Wash hands/exposed skin after use. Remove contaminated or wetted clothing.

Personal protective equipment (PPE) - reasonable foreseeable use or misuse (e.g.-emergency situations) where the potential for exposure is not well defined:

Full fire fighting universally requires full respiratory protection (SCBA) and full fire fighting turnout gear (Bunker gear) to protect the wearer from a variety of hazards.

Corroseal® is normally applied onto steel and aged paint which may contain hazards, or have equipment, machinery or other materials associated with corrosion coating protection systems, including engines, fuels, rubber, plastics, etc. requiring hazard protection.

Eye/face protection:
Eye protection Use chemical splash goggles in enclosed area and where blast-back can occur, or where wind can cause exposure or where working overhead.

Skin protection: Wear chemical resistant clothing including rubber gloves, boots, nonabsorbent whole body suits appropriate to coatings applications, as indicated by the sites exposure potential of associated equipment, used in applying Corroseal® and weather.

Respiratory Protection:	Not Required for most conditions. Use OSHA specified respirator in enclosed areas and when spraying, where blast-back can occur, or where wind can cause exposure.

General hygiene considerations:
There are no known hazards associated with this material when used as recommended. The following general hygiene considerations are recognized as common good industrial practices.

While Corroseal® may present no obvious hazard to health or environment, there are some general hygiene considerations that are practiced by industry and are generally applicable to industrial situations. such considerations may include;

Avoid breathing vapor or dust.
Avoid contact with eyes and skin.
Wash thoroughly after handling and before eating and drinking.

If you scrape, sand, or remove rust or old paint, you may release lead dust. Lead is toxic. Exposure to lead dust can cause serious illness, such as brain damage,especially in children. Pregnant women should also avoid exposure. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

These general hygiene considerations are not material specific. They are placed here to avoid diminishing the importance of the material specific recommendations.

Section 9: Physical and Chemical Properties

Appearance:	Thin, milky white/beige liquid
Odor:	Mild odor.
Odor threshold:	Not Available
Physical state:	Water based liquid
pH	3.0
Freezing point:	32 degrees F. (0° C)
Boiling Point	212° F (100° C)
Boiling range	Not Available
Flash Point	Over 200°F(tcc) (Over 93° C)
Evaporation Rate	Not Available
Flammability	Not Flammable
Upper/lower flammability or explosive limits	Not Applicable
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Specific Gravity (H20=1)	1.02
Solubility in Water	100% Dispersible
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Volatile organic compounds VOC (ASTM D3960)	60 gms/L
Viscosity (Brookfield LVF#2 spindle 60rpm)	300 cps

Section 10: Stability and Reactivity

Chemical stability: Stability under normal ambient temperature and pressure or anticipated storage and handling conditions.

Stable X

Conditions to Avoid: None

Incompatibility (Materials to Avoid) with which the product could react to produce a hazardous situation: Alkalis, ammonia, iron compounds, oxidizing agents.

Hazardous decomposition products: None.

See Section 7: Handling and Storage for appropriate proper handling and storage.

Section 11: Toxicological Information
Not Available
See Section 2 - Hazards Identification and Section 6: Accidental Release Measures.

Section 12: Ecological Information
Not Available
See Section 2 - Hazards Identification and Section 6: Accidental Release Measures.

Section 13: Disposal Considerations

Waste Corroseal® latex primer may be allowed to dry and disposed of as a non hazardous solid waste. Waste used brushes or rollers may be allowed to dry and disposed of as solid waste.

Section 14. Transport information

Department of Transportation (DOT) Classification: 55 - No Shipping Restrictions.
May be shipped or sent by U.S. Postal mail as a non hazardous liquid.

Section 15: Regulatory Information
Global Inventories
TSCA: United States Included
DSL: Canada Included
ECL: Korea Included
PICCS: Philippines Included
ENCS: Japan Included
AICS: Australia Included
IECS: China Included
EINECS: European Union Included

TRI Reporting:	SARA Title III	none
	40 CFR 372	none
	OSHA 29 CFR 1910	none
	EPA-CEPPO	none
	EPCRA	none
	RCRA	none
	RMP	none

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)
This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to the proposition.

Section 16: Other Information

NFPA 704: National Fire Protection Association
Health - 1 Fire - 0 Reactivity - 0
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Corroseal® container label text:
1. See www.corroseal.com for SURFACE PREPARATION & APPLICATION SPECIFICATIONS.
2. Solvent wipe to remove heavy grease, wax, soot, and oil deposits. Do NOT use Mineral Spirits or Acetone. Rinse surface with clearwater after cleaning to remove solvent residue. Wire brush, needle gun or pressure wash to remove loose rust, plate rust, mill scale and flaky paint. Corroseal® primes tight rust and aged tight paint. Use mineral salts remover where appropriate.
WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424- LEAD or log on to www.epa.gov/lead.
3. DO NOT THIN. Stir Corroseal® until it is creamy white/tan, uniform in color. Apply when air temperature is between 45°F and rising or 100°F and falling (5°C-37.7°C). Do Not Apply within 4 hours of precipitation.
4. Apply Corroseal® to dry or near-dry surface in a heavy white coat with no surface show-through at 8-10 Mils wet film thickness (200- 250 Micron). Spray with #19-21 tip or use brush or roller. Always do a test patch first.
5. When black color appears, rust conversion has started. If gray color appears, apply more Corroseal® while still tacky Brown color and/or spots indicate chemical contamination - remove the Corroseal® and repeat steps 1-4. Corroseal® dries transparent over paint and other non-rusted surfaces.
6. CURE FOR 24 HOURS BEFORE APPLYING INTERMEDIATE TIE COAT OR TOPCOAT. Requires adequate ventilation throughout cure time to remove moisture inside structures, vessels, ballast tanks, etc.
7. Cleans up with soap and water. Remove dried spatter by using lacquer thinner.
8. Apply intermediate tie coat or topcoat onto Corroseal® within 30 days of Corroseal's cure. Apply tie coat or topcoats according to manufacturer's directions. Do not thin beyond manufacturers recommendations. Corroseal® bonds well with oil based enamel, alkyd, vinyl, epoxy, coal tar, urethane topcoats. Always do a test patch to confirm compatibility. With water-based topcoats, consult manufacturers data. Water based topcoats subject to tannin staining require an intermediate oil-based stain blocker.
9. Limitations: For Surface Preparation; Do NOT use Acetone or Mineral Spirits. TEST over zinc base coatings as some galvanizing rejects Corroseal® chemistry. Corroseal® on chromate treated (pickled) steel is to remain dry until top coated. Immersion service requires appropriate intermediate tie-coat between Corroseal® and anti-fouling or immersion service-approved topcoat.
WARRANTY: Sellers liability is limited to the replacement or refund of purchase price upon return of unused portion with proof of purchase. Product is intended for use by persons having skill and know-how, at their discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from product use by Buyer whether as recommended herein or otherwise. Determination of appropriateness and suitability for specific applications is the sole responsibility of the Buyer and Applicator.
CAUTION: CONTAINS STYRENE BUTADIENE COPOLYMER RESIN (LATEX). AVOID CONTACT WITH SKIN AND EYES. IN CASE OF CONTACT, FLUSH IMMEDIATELY WITH PLENTY OF WATER. IF IRRITATION CONTINUES, CALL A PHYSICIAN. IF SWALLOWED, INDUCE VOMITING AND CALL A PHYSICIAN.
KEEP OUT OF REACH OF CHILDREN. KEEP FROM FREEZING. NO SHIPPING RESTRICTIONS. MADE IN USA. VOC Compliant, 60 grams/liter. 8 oz/gallon

Preparation and Revision Information:
This document is revised April 14, 2005, to incorporate ANSI MSDS specifications, as a larger body of data from that specified by OSHA.

For Product Data and Technical Data including SURFACE PREPARATION SPECIFICATIONS and APPLICATION GUIDES, see the appropriate PDF documents available on the web page www.corroseal.com for the product Corroseal® Rust Converter Primer.

Disclaimer: The data and comments presented here are intended as an aid for reference to the required OSHA documentation of OSHA MSDS requirements. See www.corroseal.com for product MSDS that is OSHA compliant. 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 his own particular use.

Oregon DEQ Hazardous Waste Site Report

[Close Report]

EPA ID:	ORD103014866		*Active*
Common Name:	Foss Maritime Co		
Employee count:	45	**Activity Start:**	4/1/1992
Location:	9030 NW ST HELENS RD PORTLAND OR 97231 MULTNOMAH County		
Latitude:	45.5877 45° 35' 15.0000"	**Longitude:**	-122.7713 -122° 46' 16.0000"
SIC Codes:	4492 - TOWING AND TUGBOAT SERVICE		

Facility is a Hazardous Waste Generator
Current Status: CEG as of 12/31/2003

Hazardous Waste Generation Reporting History

Report Year	Generator Status	Number of Waste Streams	Tons Generated	Sent Date	Received Date
2003	CEG	0		12/24/2003	02/24/2004
2002	CEG	0		12/24/2002	01/03/2003
2001	CEG	0		12/26/2001	01/04/2002
2000	CEG	0		01/05/2001	01/16/2001
1999	CEG	0		01/06/2000	03/09/2000
1998	CEG	0		01/15/1999	01/22/1999
1997	CEG	0		12/29/1997	04/02/1998
1996	CEG	0		12/30/1996	01/30/1997
1995	CEG	0		12/27/1995	03/01/1996
1994	SQG	2	0.544	12/30/1994	03/03/1995

Waste Stream: Ignitable paint: Methonol, aliphatic hydrocarbons, silicon alkyd resin, ca — **Source:** Painting

Waste Codes: D001 — **CAS Codes:**

Form: Organic paint, ink, lacquer, or varnish

Reported: 480.38 LB = 218.00 KG — **Managed Onsite:** 0.00 KG

Shipments:

11/11/1994	51919	WAD000812909	480.38 LB	Fuel blending

Waste Stream: Paint, xylene, toulene, MEK (less than 2%) — **Source:** Painting

Waste Codes: D001, F003, F005 — **CAS Codes:**

Form: Organic paint, ink, lacquer, or varnish

Reported: 717.24 LB = 326.00 KG — **Managed Onsite:** 0.00 KG

Shipments:

11/11/1994	51919	WAD000812909	717.24 LB	Fuel blending

1993		0		12/30/1993	12/31/1993
1992		0		12/29/1992	12/30/1992
1991	CEG	0		11/01/1991	04/01/1992

Leaking Underground Storage Tanks (LUST) Site Information

(Use "Back" button on browser to return to previous search results)

Leaking Underground Storage Tank (LUST) Site Information

Basic Incident Information

Log Nbr: **26-93-0009**
Status: **CLOSED**
Site Name: KNAPPTON CORPORATION/BRIX MARITIME
Received Date: 1/13/1993
Address: 9030 NW ST HELENS RD
UST Facility Id: 7374
City: PORTLAND
Zip Code: 97203
County: MULTNOMAH
Site Type:
File Status: Administrative Closure
Heating Oil Tank (HOT):
Regulated Tank: YES

Assessment Information

26-93-0009

Cause: NOT REPORTED
Source: Piping
Discovery: OTHER

Media Effected
>Soil >GroundWater

Contaminants Released
>Lubricant

Free Product Removed:
Free Vapor Removed:
CAP Requested:
Delineate Groundwater:
Groundwater Delineated:
CAP Submitted:
Delineate Soil:
Soil Delineated:
CAP Approved:
Compliance Monitoring:

Management Information

26-93-0009

Release Stopped Date: 1/13/1993
Cleanup Start Date: 1/13/1993
Cleanup End Date: 5/16/2002

Work Reported Information

26-93-0009

Work Reported	Reported By	Reported Date
Tank Decommissioning	Pacific Northwest Services, Inc.	9/16/1998

This information may not reflect current status of site.
For further detail, refer to the DEQ Regional Office file.

This page last updated: January 9, 2006
DEQ Online is the official web site for the Oregon Department of Environmental Quality.

MATERIAL SAFETY DATA SHEET

Date Issued: 03/12/91
Supercedes: 02/28/91

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product

------1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION------

MATERIAL IDENTITY

Product Code and Name:
00449 TEXACO DIESEL 2

Chemical Name and/or Family or Description:
Diesel Fuel

Manufacturer's Name and Address:
Texaco Refining and Marketing, Inc.
P.O. Box 1404 Houston, TX 77251

Telephone Numbers:
TRANSPORTATION EMERGENCY Company: (914) 831-3400 CHEMTREC: (800) 424-9300
HEALTH EMERGENCY Company: (914) 831-3400
GENERAL MSDS ASSISTANCE (914) 838-7204
TECHNICAL INFORMATION Fuels: (914) 838-7336: Lubricants/Antifreezes: (914) 838-7509
Chemicals: (512) 459-6543

------2. COMPOSITION/INFORMATION ON INGREDIENTS------

	OSHA	IARC	NTP	OTHER
NONE Product and/or Component(s) Carcinogenic According to:	X	X	X	X

Composition:

Chemical/Common Name	CAS No.	Exposure Limit	Range in %
A complex mixture of hydrocarbons produced by the distillation of crude oil. Consists predominantly of hydrocarbons ranging from C-6 to C-20, and boiling in the range of 325-675F. Product also contains some hydrocarbons produced by the distillation of products from a catalytic cracking process. The latter materials contain bicyclic and tricyciic aromatic hydrocarbons. The product may be hydrotreated or hydrodesulfurized. The benzene content varies from 0.00-0.36%.	N.A.	None established	100.00

Product is hazardous according to OSHA (1910.1200).

------3. HAZARD IDENTIFICATION------

EMERGENCY OVERVIEW

Appearance and Odor: Clear and bright liquid

WARNING STATEMENT

DANGER! CAUSES SEVERE SKIN BURNS
HARMFUL IF INHALED
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
MAY CAUSE DIZZINESS AND DROWSINESS
ASPIRATION HAZARD IF SWALLOWED--CAN ENTER
LUNGS AND CAUSE DAMAGE
COMBUSTIBLE LIQUID AND VAPOR
USE ONLY AS A FUEL

ATTENTION! POSSIBLE CANCER HAZARD
CONTAINS MIDDLE DISTILLATES WHICH MAY CAUSE CANCER
BASED ON ANIMAL DATA

HMIS				NFPA			
Health:	3	Reactivity:	0	Health:	3	Reactivity:	0
Flammability:	2	Special:	-	Flammability:	2	Special:	

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	X	

Effects of Overexposure

Acute

Eyes:
May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Skin:
Prolonged or widespread skin contact may result in the absorption of potentially harmful amounts of material.

Causes severe irritation with pain, severe excess redness and swelling with chemical burns, blister formation, and possible tissue destruction.

Inhalation:
Vapors or mist may cause irritation of the nose and throat, headache, nausea, vomiting, dizziness, drowsiness, euphoria, loss of coordination. and disorientation. In poorly ventilated areas or confined spaces, unconsciousness and asphyxiation may result.

Ingestion:
If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur. Aspiration may occur during swallowing or vomiting resulting in lung damage.

Sensitization Properties:
Unknown.

Chronic:
NIOSH has recommended that whole diesel exhaust be regarded as a potenTial occupational carcinogen, based on findings of carcinogenic responses in laboratory animals exposed to whole diesel exhaust. The excess cancer risk for workers exposed to diesel exhaust has not been calculated; the proca-bility of developing cancer should be decreased by minimizing exposure To

the lowest feasible limits.

Repeated skin contact may cause a persistent irritation or dermatitis.

Medical Conditions Aggravated by Exposure:
Skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:
This product contains benzene. Prolonged and repeated exposure to benzene has been associated with anemia and leukemia in humans.

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

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin:
Immediately flush skin With large amounts of running water for at least minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Destroy non-resistant footwear.

Ingestion:
If swallowed. get immediate medical attention. ONLY induce vomiting as directed by a doctor. Never give anything by mouth to an unconscious or convulsing person.

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may administer oxygen. Get immediate medical attention.

Other Instructions:
Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

NOTE TO PHYSICIAN: Aspiration of this product during induced emesis can result in lung injury. In evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

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

Ignition Temp. Degrees F. : 500 Flash Point Degrees F. (Method): 160 F (PM)
Flammable Limits (%) Lower: 0.52 Upper: 4.10

Recommended Fire Extinguishing Agents And Special Procedures:
According to NFPA Guide, use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

Unusual or Explosive Hazards:

None

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

(Transportation Spills Call: CHEMTREC (800) 424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:
Ventilate area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

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

Precautions to be Taken in Handling and Storage:
Store away from heat and open flame. A placard is required only when material is contained in packaging or container that exceeds 110 gallons, or in tank car or tank truck. Transport, handle, and store in accordance with OSHA Regulation 1910.106 and applicable DOT Regulations.

Eye wash and safety shower should be available nearby when this product is handled or used.

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

Protective Equipment (Type)

Eye/Face Protection:
Chemical-type goggles or face shield recommended to prevent eye contact.

Skin Protection:
Protective clothing such as uniforms, coveralls or lab coats must be worn. Launder or dry-clean when soiled. Gloves resistant to chemicals and petroleum distillates required. When handling large quantities, impervious suits, gloves, and rubber boots must be worn.

Respiratory Protection:
Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated, use respirator approved by MSHA or NIOSH as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See below for applicable permissible concentrations.

Ventilation:
Local exhaust ventilation recommended if generating vapor, dust. or mist. If exhaust ventilation is not available or inadequate, use MSHA or NIOSH approved respirator as appropriate.

Exposure Limit for Total Product:
None established.

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

Appearance and Odor: Clear and bright liquid
Boiling Point (Degrees F.): 650 Percent VOC: 100
Specific Gravity: 0.852 (H_2O=1) Vapor Density: N.D Air=1

pH of undiluted product: N.A. Solubility in Water: N.D.
Vapor Pressure: low mmhg
Viscosity: 3.0 cSt @ 100F Other: -

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

This Material Reacts Violently With: (If others is checked below, see comments for details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
-	-	-	Y	-	-

Comments:
None

Products Evolved When Subjected to Heat or Combustion:
Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones.

	OCCUR	DO NOT OCCUR
Hazardous Polymerizations:	-	X

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

TOXICOLOGICAL INFORMATION(ANIMAL TOXICITY DATA)
Median Lethal Dose (LD50 LC50) (Species)
Oral: Similar product 9.0 ml/kg (rat); practically non-toxic
Inhalation: N.D.
Dermal: Similar product >5ml/kg (rabbit); practically non-toxic
Irritation Index, Estimation of Irritation (Species)
Skin: Similar product 6.9/8.0 (rabbit); extremely irritating
Eyes: Similar product >15-25/110 (rabbit); slightly irritating
Sensitization: N.D.

Other:
Middle distillates have caused skin irritation and skin cancer in laboratory animals when repeatedly applied and left in place between applications. Studies to further evaluate the carcinogenic potential of middle distillates are currently underway. Kidney damage has also been observed in laboratory animals exposed to middle distillates.

Prolonged and repeated exposure to benzene has caused anemia, lymphoma, and other cancers, in laboratory animals. Benzene has been shown to cause embryo/fetal toxicity and birth defects in laboratory animals, but only at doses which cause maternal toxicity (i.e., illness in the mother).

------12. DISPOSAL CONSIDERATIONS------

WASTE DISPOSAL METHODS
This product (as presently constituted) has the RCRA classification of benzene toxicity and, if discarded in its present form, would have the hazardous waste number D018. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal. whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may change the classification to non-hazardous, or hazardous for reasons other than, or in addition to benzene toxicity.

REMARKS

None

------13. TRANSPORT INFORMATION------

TRANSPORTATION

DOT: PROPER SHIPPING NAME: Fuel Oil, 2

HAZARD CLASS: Combustible liquid NA1993
IDENTIFICATION NUMBER: N.D.
LABEL REQUIRED: N.D.

IMDG: PROPER SHIPPING NAME: N.D.

IATA: PROPER SHIPPING NAME: N.D.

TDG: PROPER SHIPPING NAME: N.D.

------14. REGULATORY INFORMATION------

A. SARA TITLE III

Title III Section 302/304 Extremely Hazardous Substance:

Component	CAS No.	Percent	RQ (lbs)	TPQ (lbs)
NONE				

CERCLA Section 102(a) Hazardous Substance

Component	CAS No.	Percent	RQ (lbs)
NONE			

Title III Section 311 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive	Not Applicable
X	X	X	-	-	-

Title III Section 313 Toxic Chemicals

Component	CAS No.	Percent
Benzene	71432	0-0.36

B. WHMIS CLASSIFICATION

NA

C. MICHIGAN CRITICAL MATERIALS

No critical materials present.

------15. OTHER INFORMATION------

THIS PRODUCT IS INTENDED FOR USE AS A MOTOR FUEL ONLY.

THIS PRODUCT IS NOT INTENDED FOR USE IN SPACE HEATERS. DO NOT USE IN AGRICULTURAL SPRAYS.

DO NOT USE THIS PRODUCT IN SPRAY APPLICATIONS.

Texaco recommends that all exposures to this product be minimized by strictly adhering to recommended occupational controls procedures to avoid any potential adverse health effects.

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY
OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT
SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE
PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILTIV OR WITNESS FOR A
PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN.
DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR
ALL TEXACO PRODUCTS YOU BUY, PROCESS. USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED
TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT,
USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO
DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Date: 03-12-91 [ ] New [X] Revised, Supersedes: 02-28-91
Date Printed: 12-05-91

Inquiries regarding MSDS should be directed to:
Texaco Inc.
Manager, Product Safety
P.O. Box 509
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL

------16. PRODUCT LABEL------

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT

00449 TEXACO DIESEL 2

DANGER!

WARNING STATEMENT
CAUSES SEVERE SKIN BURNS
HARMFUL IF INHALED
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
MAY CAUSE DIZZINESS AND DROWSINESS
ASPIRATION HAZARD IF SWALLOWED--CAN ENTER
LUNGS AND CAUSE DAMAGE
COMBUSTIBLE LIQUID AND VAPOR
USE ONLY AS A FUEL

ATTENTION! POSSIBLE CANCER HAZARD
CONTAINS MIDDLE DISTILLATES WHICH MAY CAUSE CANCER
BASED ON ANIMAL DATA

PRECAUTIONARY MEASURES
AVOID CONTACT WITH SKIN AND CLOTHING
AVOID PROLONGED BREATHING OF MIST OR VAPOR
KEEP CONTAINER CLOSED
USE WITH ADEQUATE VENTILATION
WASH THOROUGHLY AFTER HANDLING

KEEP AWAY FROM HEAT, SPARKS, AND FLAME
NEVER SYPHON BY MOUTH

FIRST AID

INGESTION:
If swallowed, get immediate medical attention. ONLY induce vomiting as directed by a doctor. Never give anything by mouth to an unconscious or convulsing person.

INHALATION:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may administer oxygen. Get immediate medical attention.

EYE CONTACT:
Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

SKIN CONTACT:
Immediately flush skin with large amounts of running water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Destroy non-resistant footwear.

NOTE TO PHYSICIAN:
Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

FIRE

In case of fire, use foam, dry chemical, or CO2. Use water spray to keep containers cool.

Chemical/Common Name	CAS No.	Range in %
A complex mixture of hydrocarbons produced by the distillation of crude oil. Consists predominantly of hydrocarbons ranging from C-6 to C-20,and boiling in the range of 325-675F. Product also contains some hydrocarbons produced by the distillation of products from a catalytic cracking process. The latter materials contain bicycloic and tricycloic aromatic hydrocarbons. The product may be hydrotreated or hydrodesulfurized. The benzene content varies from C.00-0.36%.	N.A.	100.00

Product is hazardous according to OSHA (1910.1200).

HMIS
Health : 3 Reactivity : 0
Flammability: 2 Special : -

National Fire Protection Association
Health : 3 Reactivity : 0
Flammability: 2 Special

DOT Proper Shipping Name: Fuel Oil, 2
DOT Hazardous Class : Combustible liquid NA1993

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

Manufacturer's Name: Texaco Refining and Marketing, Inc.
P.O. Box 1404 Houston, TX 77251

TRANSPORTATION EMERGENCY Company: (914) 831-3400
CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

BENEFICIAL WATER USE DETERMINATION

BRIX MARITIME
PORTLAND, OREGON

Prepared for

Brix Maritime Company

Prepared by

Anchor Environmental, L.L.C.
6650 SW Redwood Lane, Suite 110
Portland, OR 97224

May 2005

1 INTRODUCTION 2

2 LOCALITY OF FACILITY (LOF) 2

3 CURRENT WATER USES IN THE LOF 2
3.1 Drinking Water 3
3.2 Aquatic Life (Aquatic Habitat) 3
3.3 Recreation 3
3.4 Aesthetic Quality 4

4 REASONABLY LIKELY FUTURE WATER USES 4
4.1 Drinking Water 4
4.2 Irrigation 4
4.3 Livestock 4
4.4 Industry 4
4.5 Engineering 4
4.6 Aquatic Life (Aquatic Habitat) 5
4.7 Recreation 5
4.8 Aesthetic Quality 5

5 CONCLUSION 5

List of Tables

List of Figures

Confidential Business Information 00035543

1 INTRODUCTION

Anchor Environmental, L.L.C. has prepared this report to document the assessment of current and future beneficial uses of groundwater in the locality of the Brix Maritime (Brix) site located at 9030 NW St. Helens Road, Portland, Oregon, Township 1 North, Range 1 West, and Tax Lot 800. The Site is bordered to the northeast by the Willamette River, to the southwest by railroad tracks and NW St. Helens Road, to the northwest by a bulk fuel storage facility, and to the southeast by industrial use property. Since its development in 1979, the site has been and is currently used for tug-boat mooring, maintenance, fueling, and crew rotation.

Previous site investigation and remedial activities have been conducted due to two reported releases of petroleum hydrocarbons from underground storage tank systems. The site groundwater quality is currently being monitored in eight monitoring wells that are tested quarterly for volatile organic compounds (VOCs), gasoline, diesel, lube oil, polynuclear aromatic hydrocarbons, and metals.

2 LOCALITY OF FACILITY (LOF)

Previous investigations and current groundwater monitoring results indicate that the uppermost water bearing zone has been impacted by petroleum hydrocarbons. This zone consists of dredged sands placed as fill prior to development of the site. The shallow groundwater zone is perched on underlying silty soils. Ongoing measurements of the shallow groundwater indicate that the hydraulic gradient is consistent and directly towards the Willamette River. The shallow groundwater on the adjacent properties has been determined to be hydraulically up gradient and/or cross gradient from the site groundwater. Based on these observations, the Locality of Facility (LOF) has been limited to the operational footprint of the facility which includes an area of the Willamette River which is used for mooring and maintenance activities. Figure 1 shows the LOF that has been determined for the purposes of this evaluation.

3 CURRENT WATER USES IN THE LOF

Anchor has evaluated the current beneficial uses of groundwater in the LOF by reviewing Oregon Water Resources Department (WRD) records and well logs; site visits; observation of the surrounding area; and the screening of historical site groundwater data against applicable

Confidential Business Information 00035544

Oregon Department of Environmental Quality (DEQ) risk based concentrations (RBCs) or DEQ Screening Level Values (SLVs) for aquatic and terrestrial receptors.

Given the limited extent of the LOF that has been identified, the current beneficial uses of groundwater for the purposes of irrigation, livestock, industrial, and engineering have been excluded for this site. The site is currently zoned for heavy industrial uses.

3.1 Drinking Water

The uppermost groundwater zone that has been impacted at the site has not been identified as a source of drinking water within the LOF. Only one drinking water supply well has been identified within a one mile radius. This well is outside of the determined LOF; is located approximately 0.8 miles up-gradient from the site at 8451 NW Whitney Street, Portland, Oregon; and is drawing water from a deep aquifer. A complete inventory of available WRD logs that are located within the site's township, section, and range is presented in Table 1. Though there is a potential for site groundwater to impact the adjacent surface waters of the Willamette River, the use of the Willamette River as a source of drinking water in the vicinity was not identified. No current beneficial drinking water use within the LOF has been identified for the site's shallow groundwater; or surface water potentially impacted by the shallow groundwater discharged by the site.

3.2 Aquatic Life (Aquatic Habitat)

Historical hydrology data indicates that the impacted shallow site groundwater may discharge to the Willamette River within the area of the LOF. The portion of the Willamette River included within the LOF is currently a likely habitat for numerous species of fish and invertebrate organisms. The potential migration of shallow groundwater to these receptors should be evaluated to determine if aquatic life within the LOF are adversely affected by the impacted site groundwater.

3.3 Recreation

The Willamette River has been identified as a beneficial source of recreation including sport fishing and water sports. Use of the portion of the Willamette River included within the LOF, however, is unlikely due to the restrictive access created by in-water structures

Confidential Business Information 00035545

maintained by the facility. Recreation has not been determined as a current beneficial use of surface water impacted by shallow site groundwater within the LOF.

3.4 Aesthetic Quality

Aesthetic quality is likely a beneficial use of the Willamette River; however, site historical contaminant concentrations are unlikely to affect the aesthetic quality of the surface water within the LOF.

4 REASONABLY LIKELY FUTURE WATER USES

4.1 Drinking Water

Drinking water is not a likely future use of groundwater in or near the LOF. City of Portland municipal water supply is available for new development that may occur in the vicinity.

4.2 Irrigation

Irrigation is not a likely future use of groundwater in or near the LOF. Agriculture was not discovered as a likely future land use in the vicinity of the site.

4.3 Livestock

The LOF is located within a heavy industrial zone, which does not allow for livestock production.

4.4 Industry

The site groundwater that has been impacted consists of a shallow and low production water bearing unit. It is unlikely that this water bearing unit would support the demands of groundwater supply to a future industrial facility.

4.5 Engineering

It is unlikely that there is a future potential for engineered use of groundwater in or near the LOF. The impacted shallow water bearing unit would provide no significant source of volume.

Confidential Business Information 00035546

4.6 Aquatic Life (Aquatic Habitat)

Aquatic life will likely continue beneficial use of the area of the LOF that is in the Willamette River. Future impacts of site groundwater as it discharges to the Willamette River and its potential impact on aquatic life and habitat should be assessed.

4.7 Recreation

Recreation is not likely to be a beneficial future use of groundwater within the LOF.

4.8 Aesthetic Quality

Impacted site groundwater is not likely to have a future affect on the aesthetic quality of the vicinity.

5 CONCLUSION

A thorough review of the LOF and vicinity indicates that there are few current or future beneficial uses of the impacted water bearing unit at the Brix facility. Given the low productivity and relative location of this water bearing unit, opportunity for its beneficial use is greatly limited. There is a potential for the discharge of the impacted site groundwater to the Willamette River, and may impact aquatic life and habitat in a limited area of the LOF. The potential impacts to aquatic life and habitat should be further evaluated.

Confidential Business Information 00035547

TABLE 1

Identified Groudnwater Wells

Township 1N, Range 1W, Section 11

County	Well Log ID	WRD Startcard number	Township		Range		Section	quarter 40	quarter 160	Completion Date	Company Name	completed depth (feet)	Property Address for Well	static water level (feet)	abandonment	conversion	new construction	use community	use domestic	use industrial	use irrigation	use monitoring	use livestock	Type of Log	well > 1.0 mile from site	Cross-gradient	Upgradient	Downgradient	Monitoring Use Only	Investigation or Geotechnical Boring
MULT	67499	150043	1	N	1	W	11	SW	NE	7/17/2002	BRIX MARITIME	25	9030 NW SAINT HELENS RD	9	N	N	Y	N	N	N	N		N	M					X	
MULT	67500	150044	1	N	1	W	11	SW	NE	7/17/2002	BRIX MARITIME	15	9030 NW SAINT HELENS RD	9	N	N	Y	N	N	N	N		N	M					X	
MULT	68781	154681	1	N	1	W	11	SW	NE	2/11/2003	BRIX MARITIME	25	9030 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	M					X	
MULT	68782	154682	1	N	1	W	11	SW	NE	2/11/2003	BRIX MARITIME	22.5	9030 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	M					X	
MULT	68779	154683	1	N	1	W	11	SW	NE	2/11/2003	BRIX MARITIME	22.5	9030 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	M					X	
MULT	69807	155789	1	N	1	W	11	SW	NE	6/19/2003	BRIX MARITIME	25	9030 NW SAINT HELENS RD	23	N	N	Y	N	N	N	N		N	M					X	
MULT	69808	156330	1	N	1	W	11	SW	NE	6/19/2003	BRIX MARITIME	25	9030 NW SAINT HELENS RD	21	N	N	Y	N	N	N	N		N	M					X	
MULT	64157		1	N	1	W	11	SW	NE	5/24/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64155		1	N	1	W	11	SW	NE	5/24/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	21	Y	N	Y	N	N	N	N		N	G						X
MULT	64156		1	N	1	W	11	SW	NE	5/24/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64158		1	N	1	W	11	SW	NE	5/24/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64159		1	N	1	W	11	SW	NE	5/24/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64161		1	N	1	W	11	SW	NE	5/25/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64160		1	N	1	W	11	SW	NE	5/25/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	21	Y	N	Y	N	N	N	N		N	G						X
MULT	64154		1	N	1	W	11	SW	NE	5/29/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64153		1	N	1	W	11	SW	NE	5/29/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64150		1	N	1	W	11	SW	NE	5/29/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64151		1	N	1	W	11	SW	NE	5/29/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	64152		1	N	1	W	11	SW	NE	5/29/2001	BRIX MARITIME CO.	0	9030 NW SAINT HELENS RD	27	Y	N	Y	N	N	N	N		N	G						X
MULT	56644	112577	1	N	1	W	11	NE	SW	9/25/1998	CITY OF PORTLAND; BUREAU OF WATER WORKS	20	NEAR NW SPRINGVILLE AND WHITNEY	18	N	N	Y	N	N	N	N	N	N	M					X	
MULT	56645		1	N	1	W	11	NE	SW	9/25/1998	CITY OF PORTLAND; BUREAU OF WATER WORKS	75	NEAR NW SPRINGVILLE AND WHITNEY	18	N	N	Y	N	N	N	N	N	N	G						X
MULT	61994		1	N	1	W	11	NE	SE	8/10/2000	MARINE FINANCE CORP.	24	8444 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	G						X
MULT	62000		1	N	1	W	11	NE	SE	8/10/2000	MARINE FINANCE CORP.	27	8444 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	G						X
MULT	61999		1	N	1	W	11	NE	SE	8/10/2000	MARINE FINANCE CORP.	12	8444 NW SAINT HELENS RD		N	N	Y	N	N	N	N		N	G						X
MULT	61993		1	N	1	W	11	NE	SE	8/10/2000	MARINE FINANCE CORP.	24	8444 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	G						X
MULT	61997		1	N	1	W	11	NE	SE	8/10/2000	MARINE FINANCE CORP.	24	8444 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	G						X
MULT	61995		1	N	1	W	11	NE	SE	8/10/2000	MARINE FINANCE	24	8444 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	G						X
MULT	61996		1	N	1	W	11	NE	SE	8/10/2000	MARINE FINANCE CORP.	24	8444 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	G						X
MULT	61998		1	N	1	W	11	NE	SE	8/10/2000	MARINE FINANCE CORP.	24	8444 NW SAINT HELENS RD	20	N	N	Y	N	N	N	N		N	G						X
MULT	69092	154764	1	N	1	W	11	NE	SE	3/21/2003	MARINE FINANCE GROUP	30	8444 NW SAINT HELENS RD	15.9	N	N	Y	N	N	N	N		N	M					X	
MULT	69091	154763	1	N	1	W	11	NE	SE	3/21/2003	MARINE FINANCE GROUP	30	8444 NW SAINT HELENS RD	15.9	N	N	Y	N	N	N	N		N	M					X	
MULT	69090	154762	1	N	1	W	11	NE	SE	3/21/2003	MARINE FINANCE GROUP	20	8444 NW SAINT HELENS RD	15.9	N	N	Y	N	N	N	N		N	M					X	
MULT	69096	154767	1	N	1	W	11	NE	SE	3/21/2003	MARINE FINANCE GROUP	30	8444 NW SAINT HELENS RD	15.9	N	N	Y	N	N	N	N		N	M					X	
MULT	69094	154766	1	N	1	W	11	NE	SE	3/21/2003	MARINE FINANCE GROUP	21	8444 NW SAINT HELENS RD	15.9	N	N	Y	N	N	N	N		N	M					X	
MULT	69093	154765	1	N	1	W	11	NE	SE	3/21/2003	MARINE FINANCE GROUP	30	8444 NW SAINT HELENS RD	15.9	N	N	Y	N	N	N	N		N	M					X	
MULT	5118		1	N	1	W	11	NW	NE	9/24/1987	MOBIL OIL	25		22	N	N	Y	N	N	N	N	Y	N	M					X	
MULT	5119		1	N	1	W	11	NW	NE	9/24/1987	MOBIL OIL	25		22	N	N	Y	N	N	N	N	Y	N	M					X	
MULT	5120		1	N	1	W	11	NW	NE	9/24/1987	MOBIL OIL	25		22	N	N	Y	N	N	N	N	Y	N	M					X	
MULT	57889		1	N	1	W	11	SE	NE	4/8/1999	MOBIL OIL CORP.	14	9420 NW ST HELENS RD, PORTLAND	13	N	N	Y	N	N	N	N	N	N	M					X	
MULT	58283	122036	1	N	1	W	11	SE	NE	6/22/1999	MOBIL OIL CORP.	11	9420 NW ST HELENS RD, PORTLAND		N	N	Y	N	N	N	N	Y	N	M					X	
MULT	58284	122035	1	N	1	W	11	SE	NE	6/22/1999	MOBIL OIL CORP.	24	9420 NW ST HELENS RD, PORTLAND		N	N	Y	N	N	N	N	Y	N	G						X
MULT	57602		1	N	1	W	11	SE	NE	2/23/1999	MOBIL OIL CORPORATION	14	9420 NW ST HELENS RD, PORTLAND	13	N	N	Y	N	N	N	N	N	N	G						X
MULT	57606		1	N	1	W	11	SE	NE	2/23/1999	MOBIL OIL CORPORATION	14	9420 NW ST HELENS RD, PORTLAND	13	N	N	Y	N	N	N	N	N	N	G						X
MULT	57604		1	N	1	W	11	SE	NE	2/23/1999	MOBIL OIL CORPORATION	14	9420 NW ST HELENS RD, PORTLAND	13	N	N	Y	N	N	N	N	N	N	G						X
MULT	57605		1	N	1	W	11	SE	NE	2/24/1999	MOBIL OIL CORPORATION	15	9420 NW ST HELENS RD, PORTLAND	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	57603		1	N	1	W	11	SE	NE	2/24/1999	MOBIL OIL CORPORATION	15	9420 NW ST HELENS RD, PORTLAND	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	57601		1	N	1	W	11	SE	NE	3/1/1999	MOBIL OIL CORPORATION	14	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57600		1	N	1	W	11	SE	NE	3/1/1999	MOBIL OIL CORPORATION	14	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57607		1	N	1	W	11	SE	NE	3/1/1999	MOBIL OIL CORPORATION	26	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57608		1	N	1	W	11	SE	NE	3/1/1999	MOBIL OIL CORPORATION	15	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X

TABLE 1

Identified Groudnwater Wells

Township 1N, Range 1W, Section 11

County	Well Log ID	WRD Startcard number	Township		Range		Section	quarter 40	quarter 160	Completion Date	Company Name	completed depth (feet)	Property Address for Well	static water level (feet)	abandonment	conversion	new construction	use community	use domestic	use industrial	use irrigation	use monitoring	use livestock	Type of Log	well > 1.0 mile from site	Cross-gradient	Upgradient	Downgradient	Monitoring Use Only	Investigation or Geotechnical Boring
MULT	57596		1	N	1	W	11	SE	NE	3/2/1999	MOBIL OIL CORPORATION	15	9420 NW ST HELENS RD, PORTLAND	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	57598		1	N	1	W	11	SE	NE	3/2/1999	MOBIL OIL CORPORATION	15	9420 NW ST HELENS RD, PORTLAND	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	57597		1	N	1	W	11	SE	NE	3/2/1999	MOBIL OIL	15	9420 NW ST HELENS RD,	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	57599		1	N	1	W	11	SE	NE	3/2/1999	MOBIL OIL CORPORATION		9420 NW ST HELENS RD, PORTLAND	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	57595		1	N	1	W	11	SE	NE	3/3/1999	MOBIL OIL CORPORATION	15	9420 NW ST HELENS RD, PORTLAND	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	54410		1	N	1	W	11	NE	NW	9/12/1997	MOBIL OIL TERMINAL	0	9420 NW ST HELENS RD		Y	N	N	N	N	N	N	N	N	G						X
MULT	54412		1	N	1	W	11	NE	NW	9/12/1997	MOBIL OIL TERMINAL	0	9420 NW ST HELENS RD		Y	N	Y	N	N	N	N	N	N	G						X
MULT	54409		1	N	1	W	11	NE	NW	9/12/1997	MOBIL OIL TERMINAL	0	9420 NW ST HELENS RD		Y	N	Y	N	N	N	N	N	N	G						X
MULT	54411		1	N	1	W	11	NE	NW	9/12/1997	MOBIL OIL TERMINAL	0	9420 NW ST HELENS RD		Y	N	Y	N	N	N	N	N	N	G						X
MULT	55886		1	N	1	W	11	SE	NE	6/8/1998	MOBIL OIL TERMINAL	25	9420 NW ST HELENS RD	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	55885		1	N	1	W	11	SE	NE	6/8/1998	MOBIL OIL TERMINAL	26	9420 NW ST HELENS RD	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	4465	73551	1	N	1	W	11	SE	NW	11/17/1994	MOBIL TERMINAL	0		0	Y	N	N	N	N	N	N	Y	N	M					X	
MULT	57899		1	N	1	W	11	SE	NE	4/5/1999	MOBILE OIL CORP.	16	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57896		1	N	1	W	11	SE	NE	4/6/1999	MOBILE OIL CORP.	15	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57895		1	N	1	W	11	SE	NE	4/6/1999	MOBILE OIL CORP.	22	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57897		1	N	1	W	11	SE	NE	4/6/1999	MOBILE OIL CORP.	24	9420 NW ST HELENS RD,	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57894		1	N	1	W	11	SE	NE	4/7/1999	MOBILE OIL CORP.	14	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57893		1	N	1	W	11	SE	NE	4/7/1999	MOBILE OIL CORP.	19	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57891		1	N	1	W	11	SE	NE	4/8/1999	MOBILE OIL CORP.	18	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57890		1	N	1	W	11	SE	NE	4/8/1999	MOBILE OIL CORP.	13	9420 NW ST HELENS RD, PORTLAND	10	N	N	Y	N	N	N	N	N	N	G						X
MULT	57892		1	N	1	W	11	SE	NE	4/8/1999	MOBILE OIL CORP.	15	9420 NW ST HELENS RD, PORTLAND	12	N	N	Y	N	N	N	N	N	N	G						X
MULT	57898		1	N	1	W	11	SE	NE	NULL	MOBILE OIL CORP.	23	9420 NW ST HELENS RD, PORTLAND	13	N	N	Y	N	N	N	N	N	N	G						X
MULT	60309		1	N	1	W	11	NW	NE	2/15/2000	OLYMPIC PIPE LINE CO	15	9420 NW ST HELENS RD	4	N	N	Y	N	N	N	N	N	N	G						X
MULT	60305		1	N	1	W	11	NW	NE	2/15/2000	OLYMPIC PIPE LINE CO	15	9420 NW ST HELENS RD	4	N	N	Y	N	N	N	N	N	N	G						X
MULT	60308		1	N	1	W	11	NW	NE	2/15/2000	OLYMPIC PIPE LINE CO	18	9420 NW ST HELENS RD	9.5	N	N	Y	N	N	N	N	N	N	G						X
MULT	60306		1	N	1	W	11	NW	NE	2/15/2000	OLYMPIC PIPE LINE CO	15	9420 NW ST HELENS RD	4	N	N	Y	N	N	N	N	N	N	G						X
MULT	60307		1	N	1	W	11	NW	NE	2/15/2000	OLYMPIC PIPE LINE CO	15	9420 NW ST HELENS RD	4	N	N	Y	N	N	N	N	N	N	G						X
MULT	63400	138607	1	N	1	W	11	NE	NW	2/21/2001	OLYMPIC PIPELINE CO.	15	9420 NW SAINT HELENS RD, PORTLAND	4	N	N	Y	N	N	N	N		N	M					X	
MULT	63401	138606	1	N	1	W	11	NE	NW	2/21/2001	OLYMPIC PIPELINE CO.	18	9420 NW SAINT HELENS RD, PORTLAND	5	N	N	Y	N	N	N	N		N	M					X	
MULT	63398	138609	1	N	1	W	11	NE	NW	2/21/2001	OLYMPIC PIPELINE CO.	20	9420 NW SAINT HELENS RD, PORTLAND	8.6	N	N	Y	N	N	N	N		N	M					X	
MULT	65999		1	N	1	W	11	NE	SE	12/17/2001	OREGON DEPARTMENT OF TRANSPORTATION;	0	HWY 30 MILEPOST 0.91	15.7	Y	N	Y	N	N	N	N		N	G						X
MULT	66000		1	N	1	W	11	NE	SE	12/19/2001	OREGON DEPARTMENT OF TRANSPORTATION; SAINT JOHNS BRIDGE	0	HWY 30 MILEPOST 0.91		Y	N	Y	N	N	N	N		N	G						X
MULT	53660	80312	1	N	1	W	11	NW	SW	8/4/1993	TIME OIL CO.	20		16.7	N	Y	N	N	N	N	N	Y	N	M					X	
MULT	3671	55823	1	N	1	W	11	NE	SE	8/4/1993	TIME OIL CO.	35	9100 NW ST HELENS RD, PORTLAND	18	N	N	Y	N	N	N	N	Y	N	M					X	
MULT	53659	80318	1	N	1	W	11	NW	SW	8/4/1993	TIME OIL CO.	20		16.1	N	Y	N	N	N	N	N	Y	N	M					X	
MULT	53658	80319	1	N	1	W	11	NW	SW	8/5/1993	TIME OIL CO.	20		13.6	N	Y	N	N	N	N	N	Y	N	M					X	
MULT	53546	95783	1	N	1	W	11	SW	NE	4/3/1997	TIME OIL CO.; TERMINAL ANNEX	30	9100 NW ST HELENS RD, PORTLAND	20	N	N	Y	N	N	N	N	Y	N	M					X	
MULT	5001	81130	1	N	1	W	11	NW	SE	9/1/1995	WACKER STHRONIX CORP	0		0	Y	N	N	N	N	N	N	N	N	W	X	X			X	
MULT	47	16068	1	N	1	W	11	NE	SW	9/12/1990	WILSON, LISA DALE	530	8451 NW Whitney Street	450	N	N	Y	N	Y	N	N	N	N	W			X			
MULT	53721	99607	1	N	1	W	11	NW	NW	6/9/1997		425	9920 NW GERMANTOWN RD	182	N	N	Y	N	Y	N	N	N	N	W	X		X			
MULT	69098		1	N	1	W	11	NE	SE	3/24/2003		0	8444 NW SAINT HELENS RD		Y	N	Y	N	N	N	N		N	G						X
MULT	69097		1	N	1	W	11	NE	SE	3/24/2003		0	8444 NW SAINT HELENS RD		Y	N	Y	N	N	N	N		N	G						X

DOD Hazardous Materials Information System
DoD 6050.5-L
AS OF July 1998

FSC: 8010
NIIN: 00N010451
Manufacturer's CAGE: 11111
Part No. Indicator: A
Part Number/Trade Name: EASYPOXY BLACK, 3801

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General Information

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Item Name:
Company's Name: PETTIT PAINT COMPANY, INC.
Company's Street: 36 PINE STREET
Company's P. O. Box:
Company's City: BOROUGH OF ROCKAWAY
Company's State: NJ
Company's Country: US
Company's Zip Code: 07866
Company's Emerg Ph #: 800-548-0489
Company's Info Ph #: 201-625-3100
Distributor/Vendor # 1:
Distributor/Vendor # 1 Cage:
Distributor/Vendor # 2:
Distributor/Vendor # 2 Cage:
Distributor/Vendor # 3:
Distributor/Vendor # 3 Cage:
Distributor/Vendor # 4:
Distributor/Vendor # 4 Cage:
Safety Data Action Code:
Safety Focal Point: N
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 002
Status:
Date MSDS Prepared: 16MAY89
Safety Data Review Date: 04AUG95
Supply Item Manager:
MSDS Preparer's Name:
Preparer's Company:
Preparer's St Or P. O. Box:
Preparer's City:
Preparer's State:
Preparer's Zip Code:
Other MSDS Number:
MSDS Serial Number: BCTTT
Specification Number:
Spec Type, Grade, Class:
Hazard Characteristic Code: F4
Unit Of Issue: NK
Unit Of Issue Container Qty: N/K
Type Of Container: N/K
Net Unit Weight:

Report for NIIN: 00N010451

NRC/State License Number:
Net Explosive Weight:
Net Propellant Weight-Ammo:
Coast Guard Ammunition Code:

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Ingredients/Identity Information

Confidential Business Information

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Proprietary: NO
Ingredient: MINERAL SPIRITS; (ALIPHATIC SOLVENT NAPHTHA (PETROLEUM)). VP: 10. LD50:(ORAL,RAT) >25 ML/KG.
Ingredient Sequence Number: 01
Percent: 25-35
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 1005956MS
CAS Number: 64742-88-7
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE
Other Recommended Limit: 100 PPM (MFR)

Proprietary: NO
Ingredient: RUTILE; (TITANIUM DIOXIDE). LD50:(ORAL,RAT) >9500 MG/KG.
Ingredient Sequence Number: 02
Percent: 0-35
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: VM2940000
CAS Number: 1317-80-2
OSHA PEL: 10 MG/M3 TDUST
ACGIH TLV: 10 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CARBON BLACK
Ingredient Sequence Number: 03
Percent: 0-4
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: FF5800000
CAS Number: 1333-86-4
OSHA PEL: 3.5 MG/M3
ACGIH TLV: 3.5 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CALCIUM CARBONATE
Ingredient Sequence Number: 04
Percent: 0-20
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: EV9580000
CAS Number: 1317-65-3
OSHA PEL: 15MG/M3 TDUST;5 RESP

Report for NIIN: 00N010451

ACGIH TLV: 10 MG/M3
Other Recommended Limit: N/K
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Physical/Chemical Characteristics

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Appearance And Odor: N/K (FP N)
Boiling Point: >373F,>189C
Melting Point: N/K (FP N)
Vapor Pressure (MM Hg/70 F): N/K (FP N)
Vapor Density (Air=1): HV THN AIR
Specific Gravity: 1.08-1.50(FP N)

Confidential Business Information

Decomposition Temperature: N/K (FP N)
Evaporation Rate And Ref: SLOWER THAN ETHER
Solubility In Water: N/K (FP N)
Percent Volatiles By Volume: 40-50
Viscosity:
pH: N/K
Radioactivity:
Form (Radioactive Matl):
Magnetism (Milligauss): N/P
Corrosion Rate (IPY): N/K-FP N
Autoignition Temperature:

Fire and Explosion Hazard Data

Flash Point: 105F/40.6C
Flash Point Method: TCC
Lower Explosive Limit: 1
Upper Explosive Limit: N/K (FP N)
Extinguishing Media: FOAM, CO*2, DRY CHEMICAL, WATER FOG. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT & CAN BE REIGNITED.
Special Fire Fighting Proc: USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N).
Unusual Fire And Expl Hazrds: CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED W/WATER TO PREVENT VAPOR PRESSURE BUILDUP,WHICH COULD RESULT IN CONTAINER RUPTURE.

Reactivity Data

Stability: YES
Cond To Avoid (Stability): NONE
Materials To Avoid: STRONG OXIDANTS LIKE:LIQUID CHLORINE, CONCENTRATED OXYGEN, SODIUM, CALCIUM HYPOCHLORITE.
Hazardous Decomp Products: FUMES, SMOKE & CARBON MONOXIDE, IN THE CASE OF INCOMPLETE COMBUSTION.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): N/K (FP N)

Health Hazard Data

LD50-LC50 Mixture: SEE INGREDIENTS.
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: NO

Report for NIIN: 00N010451

Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: SEE SIGNS & SYMPTOMS OF OVEREXPOSURE SECTION (FP N).
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NOT APPLICABLE (FP N)
Signs/Symptoms Of Overexp: INHALATION OF HIGH VAPOR CONCENTRATIONS MAY HAVE RESULTS RANGING FROM DIZZINESS,HEADACHES,GIDDINESS,NAUSEA TO UNCONSCIOUSNESS.PROLONG/REPEATED LIQUID CONTACT W/SKIN WILL DRY & DEFAT SKIN, LEADING TO IRRITATION & DERMATITIS.
Med Cond Aggravated By Exp: N/K (FP N)
Emergency/First Aid Proc: EYES:IMME FLUSH W/LGE AMTS OF WATER FOR AT LEAST 1 MIN OR UNTIL IRRITATION SUBSIDES.INGES:DO NOT INDUCE VOM,CALL PHYS. IF VOM OCCUR,KEEP HEAD BELOW HIPS TO KEEP LIQ OUT OF LUNGS.SKIN:REMOVE ANY CONTAM CLTHNG,& WASH SKIN W/SOAP & WATER. INHALATION:REMOVE FROM EXPOSURE

Confidential Business Information

IMMEDIATELY.IF BREATHING IS IRREGULAR/STOPPED,START RESUSCITATION,
ADMINISTER OXYGEN.CALL A PHYSICIAN.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: RMOV ALL IGN SOURCE.KEEP PEOPLE AWAY.RCOVR FREE LIQ.ADD ABSOR(SAND,EARTH,SAWDUST,ETC.)TO SPILL AREA.AVOID BRTHNG VAPR. VENT CONFIND SPACE.OPEN ALL WINDOW & DOOR.KEEP PETRO PROD OUT OF SEWR & WTRCOURSE BY DIKNG/IMPOUNDNG.ADVISE AUTH IF PROD (SUP DAT)
Neutralizing Agent: N/K (FP N)
Waste Disposal Method: ASSURE CONFORMITY W/APPLICABLE FEDERAL, STATE & LOCAL REGULATIONS. DISPOSE OF ABSORBED MATERIAL AT AN RCRA APPROVED DISPOSAL SITE OR FACILITY.
Precautions-Handling/Storing: KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT HANDLE/STORE NEAR HEAT, SPARK, FLAME/STRONG OXIDANTS.
Other Precautions: NONE

Control Measures

Respiratory Protection: USE A NIOSH/MSHA APPROVED HYDROCARBON VAPOR CANNISTER/SUPPLIED-AIR RESPIRATORY PROTECTION IN CONFINED/ENCLOSED PLACES IF OCCUPATIONAL EXPOSURE LIMITS ARE EXCEEDED.
Ventilation: EXHAUST AT OVER 60 PPM.
Protective Gloves: USE CHEMICAL RESISTANT TYPE.
Eye Protection: CHEM WORKER GOGGLES OR FACE SHIELD.
Other Protective Equipment: USE A NIOSH/MSHA APPROVED DUST RESPIRATOR WHEN SANDING THESE PRODUCTS IF OCCUPATIONAL EXPOSURE LIMITS ARE EXCEEDED.
Work Hygienic Practices: N/K (FP N)
Suppl. Safety & Health Data: SPILL RELEASE:HAS ENTERED/MAY ENTER SEWER, WATERCOURSE OR EXTENSIVE LAND AREAS.

Transportation Data

Transportation Action Code:
Transportation Focal Point: N
Trans Data Review Date: 88355
DOT PSN Code: LFE

Report for NIIN: 00N010451

DOT Symbol:
DOT Proper Shipping Name: PAINT
DOT Class: 3
DOT ID Number: UN1263
DOT Pack Group: III
DOT Label: FLAMMABLE LIQUID
DOT/DoD Exemption Number: N/R
IMO PSN Code: LCT
IMO Proper Shipping Name: PAINT OR PAINT RELATED MATERIAL
IMO Regulations Page Number: 3372
IMO UN Number: 1263
IMO UN Class: 3.3
IMO Subsidiary Risk Label: -
IATA PSN Code: SXH
IATA UN ID Number: 1263
IATA Proper Shipping Name: PAINT
IATA UN Class: 3
IATA Subsidiary Risk Class:
IATA Label: FLAMMABLE LIQUID
AFI PSN Code: SXH
AFI Symbols:

Confidential Business Information

AFI Prop. Shipping Name: PAINT OR PAINT RELATED MATERIAL
AFI Class: 3
AFI ID Number: UN1263
AFI Pack Group: III
AFI Label:
AFI Special Prov:
AFI Basic Pac Ref:
MMAC Code:
N.O.S. Shipping Name:
Additional Trans Data: CONTAINERS ASSUMED TO BE UNDER 110 GALLONS.

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Disposal Data

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Disposal Data Action Code:
Disposal Data Focal Point: E
Disposal Data Review Date: 89286
Rec # For This Disp Entry: 01
Tot Disp Entries Per NSN: 001
Landfill Ban Item: YES
Disposal Supplemental Data: BP:189.4-198.9C.PH:N/K (FP N).RTE ENTRY:N/K (FP N).SPILL RELEASE:HAS ENTERED/MAY ENTER SEWER,WTRCOURSE,/EXTEN LAND AREA. IN CASE OF ACCIDENTAL EXPOSURE OR DISCHARGE, CONSULT HEALTH AND SAFETY FILE FOR PRECAUTIONS.
1st EPA Haz Wst Code New: D001
1st EPA Haz Wst Name New: IGNITIBLE
1st EPA Haz Wst Char New: IGNITABILITY
1st EPA Acute Hazard New: NO
2nd EPA Haz Wst Code New:
2nd EPA Haz Wst Name New:
2nd EPA Haz Wst Char New:
2nd EPA Acute Hazard New:
3rd EPA Haz Wst Code New:

Report for NIIN: 00N010451

3rd EPA Haz Wst Name New:
3rd EPA Haz Wst Char New:
3rd EPA Acute Hazard New:

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Label Data

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Label Required: YES
Technical Review Date: 07OCT92
Label Date: 07OCT92
MFR Label Number:
Label Status: G
Common Name: EASYPOXY BLACK, 3801
Chronic Hazard: NO
Signal Word: WARNING!
Acute Health Hazard-None:
Acute Health Hazard-Slight:
Acute Health Hazard-Moderate: X
Acute Health Hazard-Severe:
Contact Hazard-None:
Contact Hazard-Slight: X
Contact Hazard-Moderate:
Contact Hazard-Severe:
Fire Hazard-None:
Fire Hazard-Slight:
Fire Hazard-Moderate: X
Fire Hazard-Severe:

Confidential Business Information

Reactivity Hazard-None: X
Reactivity Hazard-Slight:
Reactivity Hazard-Moderate:
Reactivity Hazard-Severe:
Special Hazard Precautions: COMBUSTIBLE LIQUID. OSHA CLASS II. AVOID OXIDIZERS. ACUTE:VAPORS MAY CAUSE DIZZINESS, HEADACHE, GIDDINESS, NAUSEA, UNCONSCIOUSNESS. PROLONGED OR REPEATED LIQUID CONTACT WILL DEFAT & DRY SKIN LEADING TO DERMATITIS. CHRONIC:NONE SPECIFIED BY MANUFACTURER.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: PETTIT PAINT CO INC
Label Street: 36 PINE ST
Label P.O. Box:
Label City: ROCKAWAY
Label State: NJ
Label Zip Code: 07866-3131
Label Country: US
Label Emergency Number: 800-548-0489
Year Procured:

Confidential Business Information

DOD Hazardous Materials Information System
DoD 6050.5-L
AS OF July 1998

FSC: 8010
NIIN: 00N010451
Manufacturer's CAGE: 11111
Part No. Indicator: A
Part Number/Trade Name: EASYPOXY BLACK, 3801

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General Information

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Item Name:
Company's Name: PETTIT PAINT COMPANY, INC.
Company's Street: 36 PINE STREET
Company's P. O. Box:
Company's City: BOROUGH OF ROCKAWAY
Company's State: NJ
Company's Country: US
Company's Zip Code: 07866
Company's Emerg Ph #: 800-548-0489
Company's Info Ph #: 201-625-3100
Distributor/Vendor # 1:
Distributor/Vendor # 1 Cage:
Distributor/Vendor # 2:
Distributor/Vendor # 2 Cage:
Distributor/Vendor # 3:
Distributor/Vendor # 3 Cage:
Distributor/Vendor # 4:
Distributor/Vendor # 4 Cage:
Safety Data Action Code:
Safety Focal Point: N
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 002
Status:
Date MSDS Prepared: 16MAY89
Safety Data Review Date: 04AUG95
Supply Item Manager:
MSDS Preparer's Name:
Preparer's Company:
Preparer's St Or P. O. Box:
Preparer's City:
Preparer's State:
Preparer's Zip Code:
Other MSDS Number:
MSDS Serial Number: BCTTT
Specification Number:
Spec Type, Grade, Class:
Hazard Characteristic Code: F4
Unit Of Issue: NK
Unit Of Issue Container Qty: N/K
Type Of Container: N/K
Net Unit Weight:

Report for NIIN: 00N010451

NRC/State License Number:
Net Explosive Weight:
Net Propellant Weight-Ammo:
Coast Guard Ammunition Code:

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Ingredients/Identity Information

Confidential Business Information

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Proprietary: NO
Ingredient: MINERAL SPIRITS; (ALIPHATIC SOLVENT NAPHTHA (PETROLEUM)). VP: 10. LD50:(ORAL,RAT) >25 ML/KG.
Ingredient Sequence Number: 01
Percent: 25-35
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 1005956MS
CAS Number: 64742-88-7
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE
Other Recommended Limit: 100 PPM (MFR)

Proprietary: NO
Ingredient: RUTILE; (TITANIUM DIOXIDE). LD50:(ORAL,RAT) >9500 MG/KG.
Ingredient Sequence Number: 02
Percent: 0-35
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: VM2940000
CAS Number: 1317-80-2
OSHA PEL: 10 MG/M3 TDUST
ACGIH TLV: 10 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CARBON BLACK
Ingredient Sequence Number: 03
Percent: 0-4
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: FF5800000
CAS Number: 1333-86-4
OSHA PEL: 3.5 MG/M3
ACGIH TLV: 3.5 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CALCIUM CARBONATE
Ingredient Sequence Number: 04
Percent: 0-20
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: EV9580000
CAS Number: 1317-65-3
OSHA PEL: 15MG/M3 TDUST;5 RESP

Report for NIIN: 00N010451

ACGIH TLV: 10 MG/M3
Other Recommended Limit: N/K
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Physical/Chemical Characteristics

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Appearance And Odor: N/K (FP N)
Boiling Point: >373F,>189C
Melting Point: N/K (FP N)
Vapor Pressure (MM Hg/70 F): N/K (FP N)
Vapor Density (Air=1): HV THN AIR
Specific Gravity: 1.08-1.50(FP N)

Confidential Business Information

Decomposition Temperature: N/K (FP N)
Evaporation Rate And Ref: SLOWER THAN ETHER
Solubility In Water: N/K (FP N)
Percent Volatiles By Volume: 40-50
Viscosity:
pH: N/K
Radioactivity:
Form (Radioactive Matl):
Magnetism (Milligauss): N/P
Corrosion Rate (IPY): N/K-FP N
Autoignition Temperature:

Fire and Explosion Hazard Data

Flash Point: 105F/40.6C
Flash Point Method: TCC
Lower Explosive Limit: 1
Upper Explosive Limit: N/K (FP N)
Extinguishing Media: FOAM, CO*2, DRY CHEMICAL, WATER FOG. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT & CAN BE REIGNITED.
Special Fire Fighting Proc: USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N).
Unusual Fire And Expl Hazrds: CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED W/WATER TO PREVENT VAPOR PRESSURE BUILDUP,WHICH COULD RESULT IN CONTAINER RUPTURE.

Reactivity Data

Stability: YES
Cond To Avoid (Stability): NONE
Materials To Avoid: STRONG OXIDANTS LIKE:LIQUID CHLORINE, CONCENTRATED OXYGEN, SODIUM, CALCIUM HYPOCHLORITE.
Hazardous Decomp Products: FUMES, SMOKE & CARBON MONOXIDE, IN THE CASE OF INCOMPLETE COMBUSTION.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): N/K (FP N)

Health Hazard Data

LD50-LC50 Mixture: SEE INGREDIENTS.
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: NO

Report for NIIN: 00N010451

Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: SEE SIGNS & SYMPTOMS OF OVEREXPOSURE SECTION (FP N).
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NOT APPLICABLE (FP N)
Signs/Symptoms Of Overexp: INHALATION OF HIGH VAPOR CONCENTRATIONS MAY HAVE RESULTS RANGING FROM DIZZINESS,HEADACHES,GIDDINESS,NAUSEA TO UNCONSCIOUSNESS.PROLONG/REPEATED LIQUID CONTACT W/SKIN WILL DRY & DEFAT SKIN, LEADING TO IRRITATION & DERMATITIS.
Med Cond Aggravated By Exp: N/K (FP N)
Emergency/First Aid Proc: EYES:IMME FLUSH W/LGE AMTS OF WATER FOR AT LEAST 1 MIN OR UNTIL IRRITATION SUBSIDES.INGES:DO NOT INDUCE VOM,CALL PHYS. IF VOM OCCUR,KEEP HEAD BELOW HIPS TO KEEP LIQ OUT OF LUNGS.SKIN:REMOVE ANY CONTAM CLTHNG,& WASH SKIN W/SOAP & WATER. INHALATION:REMOVE FROM EXPOSURE

Confidential Business Information

IMMEDIATELY.IF BREATHING IS IRREGULAR/STOPPED,START RESUSCITATION,
ADMINISTER OXYGEN.CALL A PHYSICIAN.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: RMOV ALL IGN SOURCE.KEEP PEOPLE AWAY.RCOVR FREE LIQ.ADD ABSOR(SAND,EARTH,SAWDUST,ETC.)TO SPILL AREA.AVOID BRTHNG VAPR. VENT CONFIND SPACE.OPEN ALL WINDOW & DOOR.KEEP PETRO PROD OUT OF SEWR & WTRCOURSE BY DIKNG/IMPOUNDNG.ADVISE AUTH IF PROD (SUP DAT)
Neutralizing Agent: N/K (FP N)
Waste Disposal Method: ASSURE CONFORMITY W/APPLICABLE FEDERAL, STATE & LOCAL REGULATIONS. DISPOSE OF ABSORBED MATERIAL AT AN RCRA APPROVED DISPOSAL SITE OR FACILITY.
Precautions-Handling/Storing: KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT HANDLE/STORE NEAR HEAT, SPARK, FLAME/STRONG OXIDANTS.
Other Precautions: NONE

Control Measures

Respiratory Protection: USE A NIOSH/MSHA APPROVED HYDROCARBON VAPOR CANNISTER/SUPPLIED-AIR RESPIRATORY PROTECTION IN CONFINED/ENCLOSED PLACES IF OCCUPATIONAL EXPOSURE LIMITS ARE EXCEEDED.
Ventilation: EXHAUST AT OVER 60 PPM.
Protective Gloves: USE CHEMICAL RESISTANT TYPE.
Eye Protection: CHEM WORKER GOGGLES OR FACE SHIELD.
Other Protective Equipment: USE A NIOSH/MSHA APPROVED DUST RESPIRATOR WHEN SANDING THESE PRODUCTS IF OCCUPATIONAL EXPOSURE LIMITS ARE EXCEEDED.
Work Hygienic Practices: N/K (FP N)
Suppl. Safety & Health Data: SPILL RELEASE:HAS ENTERED/MAY ENTER SEWER, WATERCOURSE OR EXTENSIVE LAND AREAS.

Transportation Data

Transportation Action Code:
Transportation Focal Point: N
Trans Data Review Date: 88355
DOT PSN Code: LFE

Report for NIIN: 00N010451

DOT Symbol:
DOT Proper Shipping Name: PAINT
DOT Class: 3
DOT ID Number: UN1263
DOT Pack Group: III
DOT Label: FLAMMABLE LIQUID
DOT/DoD Exemption Number: N/R
IMO PSN Code: LCT
IMO Proper Shipping Name: PAINT OR PAINT RELATED MATERIAL
IMO Regulations Page Number: 3372
IMO UN Number: 1263
IMO UN Class: 3.3
IMO Subsidiary Risk Label: -
IATA PSN Code: SXH
IATA UN ID Number: 1263
IATA Proper Shipping Name: PAINT
IATA UN Class: 3
IATA Subsidiary Risk Class:
IATA Label: FLAMMABLE LIQUID
AFI PSN Code: SXH
AFI Symbols:

Confidential Business Information

AFI Prop. Shipping Name: PAINT OR PAINT RELATED MATERIAL
AFI Class: 3
AFI ID Number: UN1263
AFI Pack Group: III
AFI Label:
AFI Special Prov:
AFI Basic Pac Ref:
MMAC Code:
N.O.S. Shipping Name:
Additional Trans Data: CONTAINERS ASSUMED TO BE UNDER 110 GALLONS.

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Disposal Data

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Disposal Data Action Code:
Disposal Data Focal Point: E
Disposal Data Review Date: 89286
Rec # For This Disp Entry: 01
Tot Disp Entries Per NSN: 001
Landfill Ban Item: YES
Disposal Supplemental Data: BP:189.4-198.9C.PH:N/K (FP N).RTE ENTRY:N/K (FP N).SPILL RELEASE:HAS ENTERED/MAY ENTER SEWER,WTRCOURSE,/EXTEN LAND AREA. IN CASE OF ACCIDENTAL EXPOSURE OR DISCHARGE, CONSULT HEALTH AND SAFETY FILE FOR PRECAUTIONS.
1st EPA Haz Wst Code New: D001
1st EPA Haz Wst Name New: IGNITIBLE
1st EPA Haz Wst Char New: IGNITABILITY
1st EPA Acute Hazard New: NO
2nd EPA Haz Wst Code New:
2nd EPA Haz Wst Name New:
2nd EPA Haz Wst Char New:
2nd EPA Acute Hazard New:
3rd EPA Haz Wst Code New:

Report for NIIN: 00N010451

3rd EPA Haz Wst Name New:
3rd EPA Haz Wst Char New:
3rd EPA Acute Hazard New:

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Label Data

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Label Required: YES
Technical Review Date: 07OCT92
Label Date: 07OCT92
MFR Label Number:
Label Status: G
Common Name: EASYPOXY BLACK, 3801
Chronic Hazard: NO
Signal Word: WARNING!
Acute Health Hazard-None:
Acute Health Hazard-Slight:
Acute Health Hazard-Moderate: X
Acute Health Hazard-Severe:
Contact Hazard-None:
Contact Hazard-Slight: X
Contact Hazard-Moderate:
Contact Hazard-Severe:
Fire Hazard-None:
Fire Hazard-Slight:
Fire Hazard-Moderate: X
Fire Hazard-Severe:

Confidential Business Information

Reactivity Hazard-None: X
Reactivity Hazard-Slight:
Reactivity Hazard-Moderate:
Reactivity Hazard-Severe:
Special Hazard Precautions: COMBUSTIBLE LIQUID. OSHA CLASS II. AVOID OXIDIZERS. ACUTE:VAPORS MAY CAUSE DIZZINESS, HEADACHE, GIDDINESS, NAUSEA, UNCONSCIOUSNESS. PROLONGED OR REPEATED LIQUID CONTACT WILL DEFAT & DRY SKIN LEADING TO DERMATITIS. CHRONIC:NONE SPECIFIED BY MANUFACTURER.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: PETTIT PAINT CO INC
Label Street: 36 PINE ST
Label P.O. Box:
Label City: ROCKAWAY
Label State: NJ
Label Zip Code: 07866-3131
Label Country: US
Label Emergency Number: 800-548-0489
Year Procured:

Confidential Business Information

DOD Hazardous Materials Information System
DoD 6050.5-L
AS OF July 1998

FSC: 8010
NIIN: 011154745
Manufacturer's CAGE: 11111
Part No. Indicator: A
Part Number/Trade Name: EASYPOXY WHITE, 3175

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General Information

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Item Name:
Company's Name: PETTIT PAINT COMPANY, INC.
Company's Street: 36 PINE STREET
Company's P. O. Box:
Company's City: BOROUGH OF ROCKAWAY
Company's State: NJ
Company's Country: US
Company's Zip Code: 07866
Company's Emerg Ph #: 800-548-0489
Company's Info Ph #: 201-625-3100
Distributor/Vendor # 1:
Distributor/Vendor # 1 Cage:
Distributor/Vendor # 2:
Distributor/Vendor # 2 Cage:
Distributor/Vendor # 3:
Distributor/Vendor # 3 Cage:
Distributor/Vendor # 4:
Distributor/Vendor # 4 Cage:
Safety Data Action Code:
Safety Focal Point: N
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 002
Status:
Date MSDS Prepared: 16MAY89
Safety Data Review Date: 07JAN93
Supply Item Manager: GSA
MSDS Preparer's Name:
Preparer's Company:
Preparer's St Or P. O. Box:
Preparer's City:
Preparer's State:
Preparer's Zip Code:
Other MSDS Number:
MSDS Serial Number: BGMLG
Specification Number:
Spec Type, Grade, Class:
Hazard Characteristic Code: NK
Unit Of Issue: NK
Unit Of Issue Container Qty: N/K
Type Of Container: N/K
Net Unit Weight:

Report for NIIN: 011154745

NRC/State License Number:
Net Explosive Weight:
Net Propellant Weight-Ammo:
Coast Guard Ammunition Code:

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Ingredients/Identity Information

Confidential Business Information

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Proprietary: NO
Ingredient: ALIPHATIC SOLVENT NAPHTHA (PETROLEUM); (MINERAL SPIRITS). VP: 10. LD50:(ORAL,RAT) >25 ML/KG.
Ingredient Sequence Number: 01
Percent: 25-35
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 1003692SN
CAS Number: 64742-88-7
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE
Other Recommended Limit: 100 PPM (MFR)

Proprietary: NO
Ingredient: RUTILE; (TITANIUM DIOXIDE). LD50:(ORAL,RAT) >9500 MG/KG.
Ingredient Sequence Number: 02
Percent: 0-35
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: VM2940000
CAS Number: 1317-80-2
OSHA PEL: 10 MG/M3
ACGIH TLV: 10 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CARBON BLACK
Ingredient Sequence Number: 03
Percent: 0-4
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: FF5800000
CAS Number: 1333-86-4
OSHA PEL: 3.5 MG/M3
ACGIH TLV: 3.5 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CALCIUM CARBONATE
Ingredient Sequence Number: 04
Percent: 0-20
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: EV9580000
CAS Number: 1317-65-3
OSHA PEL: 15MG/M3 TDUST;5 RESP

Report for NIIN: 011154745

ACGIH TLV: 10 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: SUPDAT:THERE IS NO SPECIFIC ANTIDOTE FOR EFTS FROM OVEREXP TO MATL. TREATMENT SHOULD BE DIRECTED @ CTL OF SYMP (ING 6)
Ingredient Sequence Number: 05
Percent: N/K
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 9999999ZZ

Confidential Business Information

CAS Number:
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: ING 5:AND CLINICAL CONDITION.
Ingredient Sequence Number: 06
Percent: N/K
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 9999999ZZ
CAS Number:
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)
Other Recommended Limit: N/K
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Physical/Chemical Characteristics

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Appearance And Odor: N/K (FP N)
Boiling Point: >373F,>189C
Melting Point: N/K (FP N)
Vapor Pressure (MM Hg/70 F): SEE ING 1
Vapor Density (Air=1): HV THN AIR
Specific Gravity: 1.08-1.50(FP N)
Decomposition Temperature: N/K (FP N)
Evaporation Rate And Ref: SLOWER THAN ETHER
Solubility In Water: N/K (FP N)
Percent Volatiles By Volume: 40-50
Viscosity:
pH: N/K
Radioactivity:
Form (Radioactive Matl):
Magnetism (Milligauss): N/P
Corrosion Rate (IPY): N/K-FP N
Autoignition Temperature:
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Fire and Explosion Hazard Data

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Flash Point: 105F/40.6C
Flash Point Method: TCC
Lower Explosive Limit: 1

Report for NIIN: 011154745

Upper Explosive Limit: N/K (FP N)
Extinguishing Media: FOAM, CO*2, DRY CHEMICAL, WATER FOG. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT & CAN BE REIGNITED.
Special Fire Fighting Proc: USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N).
Unusual Fire And Expl Hazrds: CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED W/WATER TO PREVENT VAPOR PRESSURE BUILDUP, WHICH COULD RESULT IN CONTAINER RUPTURE.
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Reactivity Data

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Stability: YES
Cond To Avoid (Stability): NONE
Materials To Avoid: STRONG OXIDANTS LIKE LIQUID CHLORINE, CONCENTRATED OXYGEN, SODIUM/CALCIUM HYPOCHLORITE.
Hazardous Decomp Products: FUMES, SMOKE & CARBON MONOXIDE, IN THE CASE OF

Confidential Business Information

INCOMPLETE COMBUSTION.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT

Health Hazard Data

LD50-LC50 Mixture: SEE INGREDIENTS.
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: NO
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: SEE SIGNS & SYMPTOMS OF OVEREXPOSURE SECTION (FP N).
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NOT RELEVANT.
Signs/Symptoms Of Overexp: INHALATION OF HIGH VAPOR CONCENTRATIONS MAY HAVE RESULTS RANGING FROM DIZZINESS,HEADACHES,GIDDINESS,NAUSEA TO UNCONSCIOUSNESS.PROLONG/REPEATED LIQUID CONTACT W/SKIN WILL DRY & DEFAT SKIN, LEADING TO IRRITATION & DERMATITIS.
Med Cond Aggravated By Exp: N/K (FP N)
Emergency/First Aid Proc: EYE:IMME FLUSH W/LGE AMTS OF WATER FOR AT LEAST 15 MIN OR UNTIL IRRITATION SUBSIDES.INGES:DO NOT INDUCE VOM,CALL PHYS.IF VOM OCCUR,KEEP HEAD BELOW HIPS TO KEEP LIQ OUT OF LUNGS.SKIN:REMOVE ANY CONTAM CLTHNG,& WASH SKIN W/SOAP & WATER. INHALATION:REMOVE FROM EXPOSURE IMMEDIATELY.IF BREATHING IS IRREGULAR/STOPPED,START RESUSCITATION, ADMINISTER OXYGEN.CALL A PHYSICIAN.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: RMOV ALL IGN SOURCE.KEEP PEOPLE AWAY.RCOVR FREE LIQ.ADD ABSOR(SAND,EARTH,SAWDUST,ETC.)TO SPILL AREA.AVOID BRTHNG VAPR. VENT CONFIND SPACE.OPEN ALL WINDOW & DOOR.KEEP PETRO PROD OUT OF SEWR & WTRCOURSE BY DIKNG/IMPOUNDNG.ADVISE AUTH IF PROD (SUP DAT)
Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
Waste Disposal Method: DISPOSAL MUST BE I/A/W FEDERAL, STATE & LOCAL REGULATIONS (FP N). ASSURE CONFORMITY W/APPLICABLE DISPOSAL REGULATIONS.

Report for NIIN: 011154745

DISPOSE OF ABSORBED MATERIAL AT AN RCRA APPROVED DISPOSAL SITE OR FACILITY.
Precautions-Handling/Storing: KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT HANDLE/STORE NEAR HEAT, SPARK, FLAME/STRONG OXIDANTS.
Other Precautions: NONE

Control Measures

Respiratory Protection: USE A NIOSH/MSHA APPROVED HYDROCARBON VAPOR CANNISTER/SUPPLIED-AIR RESPIRATORY PROTECTION IN CONFINED/ENCLOSED PLACES IF OCCUPATIONAL EXPOSURE LIMITS ARE EXCEEDED.
Ventilation: EXHAUST AT OVER 60 FPM.
Protective Gloves: USE CHEMICAL RESISTANT TYPE.
Eye Protection: CHEMICAL WORKERS GOGGLES (FP N).
Other Protective Equipment: USE A NIOSH APPROVED DUST RESPIRATOR WHEN SANDING THESE PRODUCTS IF OCCUPATIONAL EXPOSURE LIMITS ARE EXCEEDED.
Work Hygienic Practices: N/K (FP N)
Suppl. Safety & Health Data: SPILL PROC:HAS ENTERED OR MAY ENTER SEWER, WATERCOURSE OR EXTENSIVE LAND AREAS.

Transportation Data

Confidential Business Information

Transportation Action Code:
Transportation Focal Point: N
Trans Data Review Date: 88355
DOT PSN Code: LFE
DOT Symbol:
DOT Proper Shipping Name: PAINT
DOT Class: 3
DOT ID Number: UN1263
DOT Pack Group: III
DOT Label: FLAMMABLE LIQUID
DOT/DoD Exemption Number: N/R
IMO PSN Code: LCT
IMO Proper Shipping Name: PAINT OR PAINT RELATED MATERIAL
IMO Regulations Page Number: 3372
IMO UN Number: 1263
IMO UN Class: 3.3
IMO Subsidiary Risk Label: -
IATA PSN Code: SXH
IATA UN ID Number: 1263
IATA Proper Shipping Name: PAINT
IATA UN Class: 3
IATA Subsidiary Risk Class:
IATA Label: FLAMMABLE LIQUID
AFI PSN Code: SXH
AFI Symbols:
AFI Prop. Shipping Name: PAINT OR PAINT RELATED MATERIAL
AFI Class: 3
AFI ID Number: UN1263
AFI Pack Group: III
AFI Label:
AFI Special Prov:
AFI Basic Pac Ref:

Report for NIIN: 011154745

MMAC Code:
N.O.S. Shipping Name:
Additional Trans Data: CONTAINERS ASSUMED TO BE UNDER 110 GALLONS.
==========
Disposal Data
==========
Disposal Data Action Code:
Disposal Data Focal Point:
Disposal Data Review Date:
Rec # For This Disp Entry:
Tot Disp Entries Per NSN:
Landfill Ban Item:
Disposal Supplemental Data:
1st EPA Haz Wst Code New:
1st EPA Haz Wst Name New:
1st EPA Haz Wst Char New:
1st EPA Acute Hazard New:
2nd EPA Haz Wst Code New:
2nd EPA Haz Wst Name New:
2nd EPA Haz Wst Char New:
2nd EPA Acute Hazard New:
3rd EPA Haz Wst Code New:
3rd EPA Haz Wst Name New:
3rd EPA Haz Wst Char New:
3rd EPA Acute Hazard New:
==========

Confidential Business Information

Label Data

==========

Label Required: YES
Technical Review Date: 07JAN93
Label Date: 07JAN93
MFR Label Number:
Label Status: G
Common Name:
Chronic Hazard: NO
Signal Word: WARNING!
Acute Health Hazard-None:
Acute Health Hazard-Slight:
Acute Health Hazard-Moderate: X
Acute Health Hazard-Severe:
Contact Hazard-None:
Contact Hazard-Slight: X
Contact Hazard-Moderate:
Contact Hazard-Severe:
Fire Hazard-None:
Fire Hazard-Slight:
Fire Hazard-Moderate: X
Fire Hazard-Severe:
Reactivity Hazard-None: X
Reactivity Hazard-Slight:
Reactivity Hazard-Moderate:
Reactivity Hazard-Severe:
Special Hazard Precautions: COMBUSTIBLE. AVOID OXIDIZERS. ACUTE:VAPORS MAY

Report for NIIN: 011154745

CAUSE DIZZINESS, HEADACHE, GIDDINESS, NAUSEA, UNCONSCIOUSNESS. LIQUID MAY CAUSE DRYING OR DEFATTING OF SKIN, IRRITATION, DERMATITIS. CHRONIC:NONE SPECIFIED BY MANUFACTURER.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: PETTIT PAINT CO INC
Label Street: 36 PINE ST
Label P.O. Box:
Label City: ROCKAWAY
Label State: NJ
Label Zip Code: 07866-3131
Label Country: US
Label Emergency Number: 800-548-0489
Year Procured:

Confidential Business Information

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: EQUIPMENT ENAMEL
PRODUCT CODE: 9073
JERZY BLACK

HMIS CODE:

H	F	R	P
3	3	0	
			OIL

SECTION I - MANUFACTURING IDENTIFICATION

MANUFACTURING'S NAME: Miller Paint Co., Inc
ADDRESS: 12812 N.E. Whitaker Way, Portland, OR 97230
NAME OF PREPARER:: Buckinger/Serra
DATE OF PREPARATION: 5/17/1999
D.O.T. CLASSIFICATION PAINT **CLASS:** 3 **UN:** 1263 **PACKING GROUP:** III

EMERGENCY PHONE: (800) 424-9300
INFORMATION PHONE: (503) 255-0190
DATE REVISED: 5/24/1999

SECTION II - HAZARDOUS INGRDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS#	OCCUPATION EXPOSURE LIMITS OSHA TWA	ACGIH TWA	OSHA STEL	VAPOR PRESSURE mmHg @	TEMP	Weight Percent
Isopropyl Alcohol	67-63-0	400 ppm	400 ppm	500 ppm	33	68F	< 10
*Xylene	1330-20-7	100 ppm	100 ppm	150 ppm	6.0	68F	< 5
Calcium Carbonate (d)	1317-65-3	10mg/m3	10mg/m3	None	N/A	N/A	< 10
Solvent Naptha, Light Aromatic	64742-95-6	25 ppm	25 ppm	150 ppm	2.7	68F	< 10
VM&P Naptha	8032-32-4	300 ppm	300 ppm	225 ppm	26	77F	30 - 40
Iron Oxide (d)	1309-37-1	10mg/m3	10mg/m3	None	N/A	N/A	< 10

*** No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present ***.

(d) Hazardous as dust when product is sanded

CARCINOGENICITY: NO **IARC MONOGRAPHS?** NO **OSHA REGULATED?** NO

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: 181 to 360 Deg F **POUNDS PER GALLON** 8.10 **SPECIFIC GRAVITY (H20=1)** 1.0

VAPOR DENSITY: HEAVIER THAN AIR **EVAPORATION RATE:** SLOWER THAN ETHER

SOLUBILITY IN WATER: N/A **APPEARANCE AND ODOR:** N/A

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 75 Deg F **METHOD USED:** SETAFLASH

FLAMMABLE LIMITS IN AIR BY VOLUME - LOWER: 1.0% **UPPER:** 12.7%

EXTINGUISHING MEDIA: FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES
Keep people away. Do not enter confined fire space without proper protective equipment including NIOSH approved self-contained breathing apparatus. Cool closed containers with water. Avoid spreading burning liquid with water.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS
"Closed containers may explode when exposed to heat. Isolate from heat, sparks and electrical equipment. Application to hot surfaces requires special precautions. Solvent vapors can travel to an ignition source and flash. Mists may be combustible at temperature below normal flash point. During emergency conditions, decomposition of products may cause a xc health hazard."

N/A = Not Applicable Date Printed Tuesday, February 13, 2001

SECTION V - REACTIVITY DATA

Stability: Stable
CONDITIONS TO AVOID: "Oxidizing materials, high temperatures or extreme heat."
INCOMPATIBILITY (MATERIAL TO AVOID): May react with oxidizing materials. Avoid hot surfaces, sparks and open
HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Oxides of carbon, possible low molecular weight hydrocarbons, hydrogen cyanide, toluene diisocyanate or acrolein.
HAZARDOUS POLYMERIZATION: Will not occur

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Excessive inhalation of vapors or sprays can cause nasal and respiratory irritiation, dizziness, incoordination, weakness, fatigue, nausea & headache. High concentration may result in central nervous system depression.
SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Skin: Prolonged or repeated exposure can cause moderate irritation, defatting and dermatitis.
Eyes: Severe irritation, redness, tearing and blurred vision.
SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
"May cause irritation, drying or defatting of the skin."
INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
"Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis
HEALTH HAZARDS (ACUTE AND CHRONIC) INCLUDING TARGET ORGANS::
"Chronic exposure to the hazardous materials contained in this product (see section II) may cause damage to the central nervous
MEDICALCONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Any respiratory or skin condition may be aggravate.
EMERGENCY AND FIRST AID PROCEDURES:
Inhalation: Remove to fresh air. Apply artificial respiration or administer oxygen if necessary. Consult physician. Splash (eyes): Flush immediately with large amounts of water for at least 15 minutes. Take to physician for treatment. Splash (eyes): Flush immediately with large amounts of water for at least 15 minutes. Take to physician for treatment. Splash (skin): Wash with soap and water. Remove contaminated clothing. Consult physician if irritiation persists. Ingestion: Keep person warm, quiet and get immediate medical attention. DO NOT induce vomiting because aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
"Keep unnecessary people away. Clean up spills as soon as possible. Eliminate all sources of ignition. Use non-sparking tools. Ventilate area and wear proper protective equipment. Dike and contain spill with inert material (clay, sand, etc.)."

WASTE DISPOSAL METHOD:
Place in non-leaking containers, seal tightly and label properly for disposal. A fire or health hazard may still exist since absorbent materials will only absorb liquid; they will not absorb vapors or spray mist. Observe all federal, state and local regulations concerning disposal of hazardous waste.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Keep containers closed when not in use. Store and use only in well ventilated areas. Do not store or use near heat, spark open flame or oxidizers. Avoid breathing vapors or spray mist. Avoid eye or skin contact. Wash thoroughly after handling. Never transfer material to an unlabeled container.

OTHER PRECAUTIONS:
Read and observe precautions on product label and this sheet. Keep out of reach of children. Empty containers may be hazardous from residues of product and vapor and all caution of this sheet apply to them.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION:
Use self-contained breathing apparatus where vapor concentration may be above Threshold Limit Value (TLV) or for spray application. Below the TLV limits, use a NIOSH-approved vapor respirator or an air line respirator with escape bottle provisions. If exposure data is lacking, assume TLV is exceeded.
Ventilation:
Local exhaust must be sufficient to keep airborne vapor concentrations below TLV limit. Provide adequate ventilation (with explosion proof equipment) to maintain exposure below TLV.
PROTECTIVE GLOVES: Use solvent resistant gloves to prevent contact.
EYE PROTECTION: "Safety eyewear including splash guards, chemical goggles or face shields recommended (required for spray
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Remove contaminated clothing and allow solvent to evaporate before re-use.
WORK / HYGIENIC PRACTICES: "Wash hands after handling material and before eating, drinking, smoking or using the washroom."

SECTION IX - DISCLAIMER

The information contained in this Material Safety Data Sheet is based on the data available to us and is believed to be correct. However, we assume no responsibility for any inaccuracies that may subsequently be proven. Purchaser assumes all risk in his use of the material even when recommended saftey procedures are followed.

N/A = Not Applicable Date Printed Tuesday, February 13, 2001

Extend Rust Treatment
75430

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Extend Rust Treatment
Item No.: 75430
Product Type: Acid-Modified Emulsion

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
Water	7732-18-5	45-50
Vinylidene-acrylic copolymer	Proprietary	35-40
Barium sulfate	7727-43-7	5-10
2-BUTOXYETHANOL*	111-76-2	1-3
Organic acid	Proprietary	1-3
Propylene glycol	57-55-6	1-3
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	112945-52-5	1-3

* This component is listed as a SARA Section 313 Toxic Chemical.

Ingredients which have exposure limits

Exposure Limits (TWA) Ingredients	ACGIH (TLV)	OSHA (PEL)	OTHER
Barium sulfate	10 mg/m3 dust	10 mg/m3 dust 5 mg/m3 respir.	None
2-BUTOXYETHANOL	20 ppm	50 ppm TWA skin 120mg/m3 skin	None
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	10 mg/m3 TWA	6 mg/m3 TWA	3 mg/m3 TWA resp. dust

Exposure Limits (STEL) Ingredients	ACGIH (TLV)	OSHA (PEL)

3. HAZARDS IDENTIFICATION

Toxicity: May irritate eyes and skin. High vapor concentration may irritate respiratory tract. May cause gastric disturbances if swallowed. Exposure to butoxyethanol can cause nausea, dizziness, vomiting, malaise, incoordination, diarrhea, weakness, eye redness, and swelling of the conjunctiva. The organic acid can irritate the nose and throat upon inhalation. The low

Product Name: Extend Rust Treatment
Item No.: 75430

3. HAZARDS IDENTIFICATION (continued)

concentration of these components minimizes the probability that these symptoms may occur.

Primary Routes of Entry: None known

Signs and Symptoms of Exposure: Irritation of eyes and skin. Skin may be stained contact.

Existing Conditions Aggravated by Exposure: Butoxyethanol: dermatitis

Ingredients	Literature Referenced Target Organ and Other Health Effects	Carcinogen NTP	IARC	OSHA
Water	NTO	NO	NO	NO
Vinylidene-acrylic copolymer	No Data	NO	NO	NO
Barium sulfate	LUN	NO	NO	NO
2-BUTOXYETHANOL	AC3 BLO CNS IRR KID LIV	NO	NO	NO
Organic acid	BLO COR IRR KID LIV	NO	N/A	NO
Propylene glycol	IRR	NO	NO	NO
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	NUI	NO	N/A	NO

Abbreviations

N/A Not Applicable
BLO Blood
COR Corrosive
KID Kidney
LUN Lung
NUI Nuisance dust
AC3 ACGIH animal carcinogen.
CNS Central nervous system
IRR Irritant
LIV Liver
NTO No Target Organs

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Keep individual calm. Obtain medical attention.

Inhalation: Remove to fresh air. If symptoms persist seek medical attention

Skin Contact: Flush with water at once to avoid staining skin; then wash with soap and water.

Eye Contact: Flush at least 15 minutes with water. Obtain medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: None - aqueous medium Method: Tag Closed Cup

Recommended Extinguishing Agents: Carbon dioxide, foam, dry chemical

Product Name: Extend Rust Treatment
Item No.: 75430

5. FIRE FIGHTING MEASURES (continued)

Special Firefighting Procedures:	Not available
Hazardous Products formed by Fire or Thermal Decomp	Irritating organic vapors, oxides of carbon, toxic gases such as hydrogen chloride
Unusual Fire or Explosion Hazards:	None
Explosive Limits:	
(% by volume in air)Lower	Butoxyethanol: 1.1%
(% by volume in air)Upper	Butoxyethanol: 10.6%

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak:	Clean up with detergent and water.

7. HANDLING AND STORAGE

Safe Storage:	Store between 40-105°F
(Contact Loctite Customer	Service 1-800-243-4874 for shelf life information)
Handling:	Avoid skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes:	Safety glasses or goggles.
Skin:	Impermeable rubber or plastic gloves.
Ventilation:	Normal ventilation is adequate for occasional use. For continuous or spray application, provide local exhaust ventilation.
Respiratory	Not available
	See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Milky liquid
Odor:	Mild
Boiling Point:	Approximately 212°F
pH:	1.95
Solubility in Water:	Water-based
Specific Gravity	1.202
Volatile Organic Compound (EPA Method 24)	110 grams of VOC per liter of coating
Vapor Pressure:	Approximately 24 mm
Vapor Density:	1.2
Evaporation Rate (Ether = 1)	Not available

Product Name: Extend Rust Treatment
Item No.: 75430

10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: Strong bases will coagulate resin; strong oxidizers.
Conditions to Avoid: Not available
Hazardous Decomposition Products (non-thermal): None

11. TOXICOLOGICAL INFORMATION

Estimated oral LD50 more than 5000 mg/kg.
Estiamted dermal LD50 more than 2000 mg/kg.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal: Incinerate following EPA and local regulations.
EPA Hazardous Waste Number D002 - Hazardous waste per 40CFR 261.22

14. TRANSPORTATION INFORMATION

DOT (49 CFR 172)
Domestic Ground Transport
Proper Shipping Name: Unrestricted
Hazard Class or Division: Unrestricted
Identification Number: None
Marine Pollutant: None
IATA
Proper Shipping Name: Unrestricted
Class or Division: Unrestricted
UN or ID Number: None

15. REGULATORY INFORMATION

CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Ethylene oxide, 2,ethoxy-ethanol

Product Name: Extend Rust Treatment
Item No.: 75430

16. OTHER INFORMATION

Estimated NFPA(R) Code:
- Health Hazard: 1
- Fire Hazard: 1
- Reactivity Hazard: 0
- Specific Hazard: Does not apply

Estimated HMIS(R) Code:
- Health Hazard: 1*
- Flammability Hazard: 1
- Reactivity Hazards: 0
- Personal Protection: See Section 8.

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Kyra Kozak Woods
Title: Health and Regulatory Affairs Specialist
Company: Henkel Loctite Corporation, Rocky Hill CT 06067
(24hr.) Phone: (860) 571-5100
Revision Date: October 21, 2004 Revision: 0006

MATERIAL SAFETY DATA SHEET

HY-PER LUBE CORPORATION
14818 N.E. 31ST CIRCLE
REDMOND, WA 98104

PRODUCT CODE NO: HPL-201, 205, 255; HTT-200, HSF-220

MANUFACTURER: HY-PER LUBE CORPORATION
14818 N.E. 31ST CIRCLE
REDMOND, WA 98104
(425) 558-3700

FOR PRODUCT EMERGENCY CONTACT:
CHEM-TEL (800) 255-3924

PRODUCT IDENTIFICATION

PRODUCT NAME	: Hilton Hy-Per-Lube
SYNONYMS	: Hilton Hy-Per-Lube
GENERIC NAME	: Industrial Oil
CHEMICAL FAMILY	: Petroleum Hydrocarbon
DOT PROPER SHIPPING NAME	: Not Applicable
ID NUMBER	: None

SECTION I INGREDIENTS	TVL	UNITS	AGENCY	TYPE
OIL MIST, IF GENERATED	5.00	MG/M3	OSHA	FULL TERM TWA

The identities of ingredients that are trade secrets are excluded from this list.

SECTION II - EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:
For direct contact, flush the affected eye(s) with clean water. If irritation or redness develops, seek medical attention.

SKIN CONTACT:
Do not use gasoline's, thinners or solvents to remove product from skin. Wipe material from skin and remove contaminated clothing. Cleanse affected area(s) thoroughly by washing with soap and water and, if necessary, a waterless skin cleanser. If irritation or redness develops and persists, seek medical attention.

INHALATION (BREATHING):
If irritation of nose or throat develops, move away from source of exposure and into fresh air. If irritation persists, seek medical attention. If victim is not breathing or if breathing difficulties develop, artificial respiration or oxygen should be administered by qualified personnel. Seek immediate medical attention.

INGESTION (SWALLOWING):
If victim is conscious and alert, give 2 to 3 cups of milk or water to drink. Seek medical attention. To physician: Emesis or Lavage is not recommended for ingestion's of minute quantities or tastes of most hydrocarbons. Medical opinion is divided for larger ingestion's. Emesis or Lavage has been recommended for those petroleum products which have a high oral toxicity. Gastric Lavage with a cuffed endotracheal tube is recommended by some physicians to prevent aspiration.

SECTION III - POTENTIAL ADVERSE HEALTH EFFECTS

EYE CONTACT:
This material may cause eye irritation. Direct contact may cause burning, tearing, and redness.

SKIN CONTACT:
This material may cause skin irritation. Prolonged or repeated contact may cause redness, burning or dermatitis.

INHALATION (BREATHING):
Exposure to mists, or prolonged or repeated exposure to fumes or vapors that may be generated when this material is heated, may cause irritation of nose and throat.

INGESTION (SWALLOWING):
Accidental ingestion of this material may cause irritation of the digestive tract.

COMMENTS:
Used motor oil: Following repeated skin applications, animal studies have shown that used motor/crankcase oils have caused an increased incidence of skin cancer in mice. It is therefore recommended that prolonged or repeated contact with motor crankcase oils be avoided.

SECTION IV - SPECIAL PROTECTION INFORMATION

VENTILATION:
If current ventilation practices are not adequate in maintaining airborne concentrations below the established exposure limits (see section I), additional ventilation or exhaust systems may be required.

RESPIRATORY PROTECTION:
If airborne concentrations exceed recommended exposure limits, a suitable filter-type respirator should be worn. (see section I)

PROTECTIVE GLOVES:
The use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation.

EYE PROTECTION:
Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.

OTHER PROTECTIVE EQUIPMENT:
It is suggested that a source of clean water be available in work area for flushing eyes and skin. Barrier creams that are specific for oil-based materials are recommended when gloves are impractical.

SECTION V - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY (MATERIALS TO AVOID):
Avoid contact with strong oxidizing agents. Extended exposure to high temperatures may cause decomposition.

HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition in the presence of air may yield major amounts of oxides of carbon and minor amounts of oxides of nitrogen, phosphorus, sulfur and zinc.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI ENVIRONMENTAL PROTECTION

ENVIRONMENTAL IMPACT:
This material is not expected to present any environmental problems other than those associated with oil spills.

PRECAUTIONS IF MATERIAL IS RELEASED OR SPILLED:
Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. When feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

WASTE DISPOSAL METHODS:
Place contaminated materials in disposable containers and dispose of in a manner consistent with environmental or health authorities for approved disposal of this material.

SECTION VII STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:
Store in a cool, dry location. Keep away from incompatible materials (see section V). Avoid generating oil mists while handling. Avoid prolonged or repeated skin contact. Wash thoroughly after handling. For used motor oil: launder saturated clothing before wearing and discard oil-soaked shoes and unwashable clothing.

SECTION VIII FIRE PRECAUTION

FLASH POINT (OPEN CUP):	360° F
FIRE POINT (OPEN CUP):	405° F
FLAMMABILITY LIMITS:	N/A
EXTINGUISHING MEDIA:	CO2, Dry Chemical, Foam, Water Fog.

SPECIAL FIRE FIGHTING PROCEDURES:
For fires involving this material, do not enter any enclosed or confined fire spaces without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire MSDS.

SECTION IX PHYSICAL DATA

APPROX. BOILING POINT	: Above 600° F	POUR POINT: 0°F
VAPOR DENSITY	: Heavier than air.	
EVAPORATION RATE	: Slower than ether	
% VOLATILE	: Negligible	
% SOLUBILITY	: Negligible	
SPECIFIC GRAVITY	: 0.85-0.92	
API GRAVITY (60° F)	: 28.1	
KINEMATIC VIS @ 100° C	: 120 - 130 cSt	
APPEARANCE	: Clear golden liquid	
ODOR	: Characteristic	

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OR THE HAZARDS RELATED TO ITS USE.
This information and product are furnished on the condition that the person receiving them shall make his or her own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof.

MATERIAL SAFETY DATA SHEET

Sales Order: {SalesOrd}

INTERLAC 665 WHITE

MSDS Revision No: P3 –30
MSDS Revision Date: 10/21/2005

International Paint LLC

6001 Antoine Drive

Houston, Texas 77091

EMERGENCY NUMBERS:

(800) 424–9300	CHEMTREC (USA)
(703) 527–3887	CHEMTREC (Intl)
(800) 854–6813	Poison Control Center
CUSTOMER SERVICE:	(Non–Emergency)
(800) 589–1267	International Paint
(800) 631–7481	Interlux

1. GENERAL INFORMATION

Product Identity: INTERLAC 665 WHITE

Bulk Sales Reference No: CLB000

IMPORTANT: Read this MSDS before handling or disposing of this product, and provide this information to the employee, customers, and users of this product. PLEASE NOTE THE MSDS REVISION NUMBER AT THE TOP OF THIS PAGE. If the MSDS Revision Number posted at the top of this page does not match the MSDS Revision Number on the product label, please contact Customer Service at the phone number included above for the correct MSDS. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard.

NOTICE: OSHA hazardous chemicals are listed in Section 2 if present at 1% or more. Carcinogens and extraordinarily/special hazardous chemicals are listed in Section 2 if present at .1% or more. Additional regulatory information for specific chemical categories is included in Section 15.

2. HAZARDOUS INGREDIENT INFORMATION

CAS No.	Ingredient Name & %	Source	Exposure Data
001343–98–2	Silicic acid 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
008052–41–3	Stoddard solvent 10 – 25% by Weight	OSHA:	500 ppm TWA; 2900 mg/m3 TWA
		ACGIH:	100 ppm TWA
		NIOSH:	350 mg/m3 TWA1800 mg/m3 Ceiling (15 minute)20000 mg/m3 IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	525 mg/m3 TWAEV (140 Degree C Flash Aliphatic Solvent)
		Mexico:	100 ppm TWA; 523 mg/m3 TWA200 ppm STEL; 1050 mg/m3 STEL
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Eye nose
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

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CAS No.	Ingredient Name & %	Source	Exposure Data
013463–67–7	Titanium dioxide 10 – 25% by Weight	OSHA:	15 mg/m3 TWA (total dust)
		ACGIH:	10 mg/m3 TWA
		NIOSH:	5000 mg/m3 IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	10 mg/m3 TWAEV (total dust)
		Mexico:	10 mg/m3 TWA (nuisance particulate)20 mg/m3 STEL
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Lung tumors in animals
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: Yes; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
027253–31–2	Cobalt neodecanoate 0.10 – 1.0% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: Yes; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
064742–47–8	Petroleum distillates, hydrotreated light 10 – 25% by Weight	OSHA:	No Established Limit
		ACGIH:	200 mg/m3 TWA (application restricted to conditions in which there are negligible aerosol expos
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

3. HAZARD IDENTIFICATION

Overview:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing.
Inhalation:	May be harmful or fatal if inhaled. May cause lung injury. Causes nose and throat irritation. Vapors may affect the brain

Confidential Business Information

	or nervous system causing dizziness, headache or nausea.
Eyes:	Causes severe eye irritation. Do not get in eyes.
Skin:	Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion:	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.
Chronic Effects:	Contains an ingredient which can cause organ damage (See Section 2 and Section 15 for each ingredient). Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 2 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
HMIS Rating:	Health: 2 Flammability: 2 Reactivity: 0

4. FIRST AID MEASURES

General:	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion:	If swallowed, immediately contact Poison Control Center at 1–800–854–6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory:	Select equipment to provide protection from the ingredients listed in Section 2 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1–800–243–4630, in Canada call 1–800–267–4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.
Eyes:	Do not get in eyes. Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, safety glasses, chemical goggles, and/or head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Skin/Hand:	Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Engineering Controls:	Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation.
Other Work Practices:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

6. FIRE AND EXPLOSION INFORMATION

Flash Point:	F: 106 C: 41
Lower Explosive Limit (LEL):	1 (%vol in air) at Normal Atmospheric Temp and Pressure
Fire and Explosion Hazards:	Combustible liquid and vapor. FLAMMABLE/COMBUSTIBLE MATERIALS: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) creating a vapor explosion hazard. Runoff to sewers may create fire or explosion hazard. Containers may explode when heated.
Fire Fighting Procedures:	CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO_2, water spray or alcohol–resistant foam. LARGE FIRES: Use water spray, fog, or alcohol–resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material. Also Reference Emergency Response Guide Number: 127

Confidential Business Information

7. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	No Established Limit
Specific Gravity:	1.119354
Boiling Point (F):	210
Vapor Density:	Heavier than air
VOC Content (lbs):	Refer to the Technical Data Sheet for this product.
Evaporation Rate:	Slower than ether

8. STABILITY AND REACTIVITY DATA

General:	This product is stable and hazardous polymerization will not occur.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decompostion:	May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Carbon Dioxide and Carbon Monoxide.

9. HANDLING AND STORAGE

Storage Temperature:	Store between 32 and 120 F
Handling and Storage Precautions:	Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Vapors may cause flash fire or ignite explosively. Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation. Do not get in eyes, on skin or clothing. Close container after each use. Wash thoroughly after handling.

10. TOXICOLOGICAL DATA

General:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. No additional information provided for this product. See Section 2 for chemical specific data.

11. ECOLOGICAL DATA

General:	No additional information provided for this product. See Section 2 for chemical specific data.

12. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures:	ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non–sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non–combustible material and transfer to containers. Use non–sparking tools to collect absorbed material.
Public Safety:	CALL CHEMTREC at (800)–424–9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet). Also, Reference Emergency Response Guide Number: 127

13. DISPOSAL CONSIDERATION

Waste Disposal:	Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

Confidential Business Information

14. TRANSPORTATION INFORMATION

DOT (Domestic Surface Transportation)		IMO / IMDG (Ocean Transportation)	
DOT Proper Shipping Name: PAINT		IMDG Proper Shipping Name: PAINT	
DOT Hazard Class:	3	IMDG Hazard Class:	3.3 – High flashpoint flammable liquids
UN / NA Number:	UN 1263	UN Number:	UN 1263
DOT Packing Group:	III	IMDG Packing Group:	III
CERCLA/DOT RQ:	6206 gal. / 57870 lbs.	System Reference Code: 1	

15. REGULATORY INFORMATION

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all–inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory. **Note:** Any chemical ingredients listed in Section 15, that do not also appear in Section 2, are contained in the product at a concentration below the applicable OSHA threshold level of 1% or 0.1%.
WHMIS Classification:	No Established Limit
Regulatory List	Product Ingredients on List
DOT Marine Pollutants (10%):	
(No Product Ingredients Listed)	
DOT Severe Marine Pollutants (1%):	
(No Product Ingredients Listed)	
EPCRA 311/312 Chemicals and RQs (>.1%) :	
001330–20–7	Xylenes (o–, m–, p– isomers) : 100 lb final RQ; 45.4 kg final RQ
EPCRA 302 Extremely Hazardous (>.1%) :	
(No Product Ingredients Listed)	
EPCRA 313 Toxic Chemicals (>.1%) :	
027253–31–2	Cobalt neodecanoate
000095–63–6	Pseudocumene
001330–20–7	Xylenes (o–, m–, p– isomers)
Mass RTK Substances (>1%) :	
008052–41–3	Stoddard solvent
013463–67–7	Titanium dioxide
Mass Extraordinarily Haz Sub (>.01%) :	
014808–60–7	Quartz
014464–46–1	Silica, cristobalite
Penn RTK Substances (>1%) :	
008052–41–3	Stoddard solvent
013463–67–7	Titanium dioxide
Penn Special Hazardous Substances (>.01%) :	
(No Product Ingredients Listed)	
Rhode Island Hazardous Substances (>.1%) :	
008052–41–3	Stoddard solvent
013463–67–7	Titanium dioxide
001330–20–7	Xylenes (o–, m–, p– isomers)
RCRA Status (>.01%) :	
(No Product Ingredients Listed)	
N.J. RTK Substances (>1%) :	

Confidential Business Information

008052–41–3	Stoddard solvent
013463–67–7	Titanium dioxide
N.J. Special Hazardous Substances (>.01%) :	
(No Product Ingredients Listed)	
000100–41–4	Ethyl benzene
000078–83–1	Isobutyl alcohol
000107–98–2	Propylene glycol monomethyl ether
001330–20–7	Xylenes (o–, m–, p– isomers)
N.J. Env. Hazardous Substances (>.1%) :	
027253–31–2	Cobalt neodecanoate
000095–63–6	Pseudocumene
001330–20–7	Xylenes (o–, m–, p– isomers)
Proposition 65 – Carcinogens (>0%):	
014808–60–7	Quartz
014464–46–1	Silica, cristobalite
Proposition 65 – Female Repro Toxins (>0%):	
(No Product Ingredients Listed)	
Proposition 65 – Male Repro Toxins (>0%):	
(No Product Ingredients Listed)	
Proposition 65 – Developmental Toxins (>0%):	
(No Product Ingredients Listed)	

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

End Of Document

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MATERIAL SAFETY DATA SHEET

Sales Order: {SalesOrd}

INTERLAC 665FD ULTRA DEEP BASE

MSDS Revision No: B0 –
MSDS Revision Date: 01/19/2006

International Paint LLC

6001 Antoine Drive

Houston, Texas 77091

EMERGENCY NUMBERS:

(800) 424–9300	CHEMTREC (USA)
(703) 527–3887	CHEMTREC (Intl)
(800) 854–6813	Poison Control Center
CUSTOMER SERVICE:	(Non–Emergency)
(800) 589–1267	International Paint
(800) 631–7481	Interlux

1. GENERAL INFORMATION

Product Identity: INTERLAC 665FD ULTRA DEEP BASE

Bulk Sales Reference No: 66544

IMPORTANT: Read this MSDS before handling or disposing of this product, and provide this information to the employee, customers, and users of this product. PLEASE NOTE THE MSDS REVISION NUMBER AT THE TOP OF THIS PAGE. If the MSDS Revision Number posted at the top of this page does not match the MSDS Revision Number on the product label, please contact Customer Service at the phone number included above for the correct MSDS. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard.

NOTICE: OSHA hazardous chemicals are listed in Section 2 if present at 1% or more. Carcinogens and extraordinarily/special hazardous chemicals are listed in Section 2 if present at .1% or more. Additional regulatory information for specific chemical categories is included in Section 15.

2. HAZARDOUS INGREDIENT INFORMATION

CAS No.	Ingredient Name & %	Source	Exposure Data
000100–41–4	Ethyl benzene 10 – 25% by Weight	OSHA:	100 ppm TWA; 435 mg/m3 TWA125 ppm STEL; 545 mg/m3 STEL
		ACGIH:	100 ppm TWA125 ppm STEL
		NIOSH:	100 ppm TWA; 435 mg/m3 TWA125 ppm STEL; 545 mg/m3 STEL800 ppm IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	100 ppm TWAEV; 435 mg/m3 TWAEV125 ppm STEV; 540 mg/m3 STEV
		Mexico:	100 ppm TWA; 435 mg/m3 TWA125 ppm STEL; 545 mg/m3 STEL
		Brazil:	78 ppm TWA; 340 mg/m3 TWA
		Source	Health Data
		NIOSH:	Eye skin
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: Yes; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
001330–20–7	Xylenes (o–, m–, p– isomers) 25 – 50% by Weight	OSHA:	100 ppm TWA; 435 mg/m3 TWA150 ppm STEL; 655 mg/m3 STEL
		ACGIH:	100 ppm TWA150 ppm STEL
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	100 ppm TWAEV; 435 mg/m3 TWAEV150 ppm STEV; 650 mg/m3 STEV
		Mexico:	100 ppm TWA; 435 mg/m3 TWA150 ppm STEL; 655 mg/m3 STEL
		Brazil:	78 ppm TWA; 340 mg/m3 TWA
		Source	Health Data
		NIOSH:	Central nervous system depressant; respiratory and eye irritation
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No

Confidential Business Information

NTP:	Known Carcinogen: No; Suspected Carcinogen: No
IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: Yes; Group 4: No

3. HAZARD IDENTIFICATION

Overview:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing.
Inhalation:	Harmful if inhaled. Causes nose and throat irritation. Vapors may affect the brain or nervous system causing dizziness, headache or nausea.
Eyes:	Causes severe eye irritation. Do not get in eyes.
Skin:	Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion:	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.
Chronic Effects:	Contains an ingredient which can cause organ damage (See Section 2 and Section 15 for each ingredient). Birth defect hazard. Contains an ingredient which can cause birth defects (See Section 2 and Section 15 for each ingredient).
HMIS Rating:	Health: 2* Flammability: 3 Reactivity: 0

4. FIRST AID MEASURES

General:	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion:	If swallowed, immediately contact Poison Control Center at 1–800–854–6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory:	Select equipment to provide protection from the ingredients listed in Section 2 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1–800–243–4630, in Canada call 1–800–267–4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.
Eyes:	Do not get in eyes. Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, safety glasses, chemical goggles, and/or head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Skin/Hand:	Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Engineering Controls:	Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation.
Other Work Practices:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

6. FIRE AND EXPLOSION INFORMATION

Flash Point:	F: 79 C: 26
Lower Explosive Limit (LEL):	1 (%vol in air) at Normal Atmospheric Temp and Pressure
Fire and Explosion Hazards:	Flammable liquid and vapor. FLAMMABLE/COMBUSTIBLE MATERIALS: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and

Confidential Business Information

	flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) creating a vapor explosion hazard. Runoff to sewers may create fire or explosion hazard. Containers may explode when heated.
Fire Fighting Procedures:	CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO_2, water spray or alcohol–resistant foam. LARGE FIRES: Use water spray, fog, or alcohol–resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material. Also Reference Emergency Response Guide Number: 127

7. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	No Established Limit
Specific Gravity:	0.964886
Boiling Point (F):	277
Vapor Density:	Heavier than air
VOC Content (lbs):	Refer to the Technical Data Sheet for this product.
Evaporation Rate:	Slower than ether

8. STABILITY AND REACTIVITY DATA

General:	This product is stable and hazardous polymerization will not occur.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decompostion:	May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Carbon Dioxide and Carbon Monoxide.

9. HANDLING AND STORAGE

Storage Temperature:	Store at a minimum of 77°F (25°C).
Handling and Storage Precautions:	Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Vapors may cause flash fire or ignite explosively. Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation. Do not get in eyes, on skin or clothing. Close container after each use. Wash thoroughly after handling.

10. TOXICOLOGICAL DATA

General:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. No additional information provided for this product. See Section 2 for chemical specific data.

11. ECOLOGICAL DATA

General:	No additional information provided for this product. See Section 2 for chemical specific data.

12. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures:	ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non–sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non–combustible material and transfer to containers. Use non–sparking tools to collect absorbed material.
Public Safety:	CALL CHEMTREC at (800)–424–9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of

Confidential Business Information

low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet).
Also, Reference Emergency Response Guide Number: 127

13. DISPOSAL CONSIDERATION

Waste Disposal:	Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

14. TRANSPORTATION INFORMATION

DOT (Domestic Surface Transportation)		IMO / IMDG (Ocean Transportation)	
DOT Proper Shipping Name: PAINT		IMDG Proper Shipping Name: PAINT	
DOT Hazard Class:	3	IMDG Hazard Class:	3.3 – High flashpoint flammable liquids
UN / NA Number:	UN 1263	UN Number:	UN 1263
DOT Packing Group:	III	IMDG Packing Group:	III
CERCLA/DOT RQ:	27 gal. / 213 lbs.	System Reference Code: 1	

15. REGULATORY INFORMATION

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all–inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory. **Note:** Any chemical ingredients listed in Section 15, that do not also appear in Section 2, are contained in the product at a concentration below the applicable OSHA threshold level of 1% or 0.1%.
WHMIS Classification:	B2:D2B
Regulatory List	Product Ingredients on List
DOT Marine Pollutants (10%):	
(No Product Ingredients Listed)	
DOT Severe Marine Pollutants (1%):	
(No Product Ingredients Listed)	
EPCRA 311/312 Chemicals and RQs (>.1%) :	
000100–41–4	Ethyl benzene : 1000 lb final RQ; 454 kg final RQ
001330–20–7	Xylenes (o–, m–, p– isomers) : 100 lb final RQ; 45.4 kg final RQ
EPCRA 302 Extremely Hazardous (>.1%) :	
(No Product Ingredients Listed)	
EPCRA 313 Toxic Chemicals (>.1%) :	
000100–41–4	Ethyl benzene
000107–98–2	Propylene glycol monomethyl ether
001330–20–7	Xylenes (o–, m–, p– isomers)
Mass RTK Substances (>1%) :	
000100–41–4	Ethyl benzene
001330–20–7	Xylenes (o–, m–, p– isomers)
Mass Extraordinarily Haz Sub (>.01%) :	
014808–60–7	Quartz
014464–46–1	Silica, cristobalite
Penn RTK Substances (>1%) :	
000100–41–4	Ethyl benzene
001330–20–7	Xylenes (o–, m–, p– isomers)
Penn Special Hazardous	

Confidential Business Information

Substances (>.01%) :
(No Product Ingredients Listed)
Rhode Island Hazardous Substances (>.1%) :

000100–41–4	Ethyl benzene
000107–98–2	Propylene glycol monomethyl ether
008052–41–3	Stoddard solvent
001330–20–7	Xylenes (o–, m–, p– isomers)

RCRA Status (>.01%) :
(No Product Ingredients Listed)
N.J. RTK Substances (>1%) :

000100–41–4	Ethyl benzene
001330–20–7	Xylenes (o–, m–, p– isomers)

N.J. Special Hazardous Substances (>.01%) :

000100–41–4	Ethyl benzene
000107–98–2	Propylene glycol monomethyl ether
001330–20–7	Xylenes (o–, m–, p– isomers)

N.J. Env. Hazardous Substances (>.1%) :

000100–41–4	Ethyl benzene
000107–98–2	Propylene glycol monomethyl ether
001330–20–7	Xylenes (o–, m–, p– isomers)

Proposition 65 – Carcinogens (>0%):

014808–60–7	Quartz
014464–46–1	Silica, cristobalite

Proposition 65 – Female Repro Toxins (>0%):
(No Product Ingredients Listed)
Proposition 65 – Male Repro Toxins (>0%):
(No Product Ingredients Listed)
Proposition 65 – Developmental Toxins (>0%):
(No Product Ingredients Listed)

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

End Of Document

Confidential Business Information

MATERIAL SAFETY DATA SHEET

Sales Order: {SalesOrd}

INTERTUF 262 BLACK BASE

MSDS Revision No: N9 –17
MSDS Revision Date: 02/17/2006

International Paint LLC

6001 Antoine Drive

Houston, Texas 77091

EMERGENCY NUMBERS:

(800) 424–9300	CHEMTREC (USA)
(703) 527–3887	CHEMTREC (Intl)
(800) 854–6813	Poison Control Center
CUSTOMER SERVICE:	(Non–Emergency)
(800) 589–1267	International Paint
(800) 631–7481	Interlux

1. GENERAL INFORMATION

Product Identity: INTERTUF 262 BLACK BASE

Bulk Sales Reference No: KHA304

IMPORTANT: Read this MSDS before handling or disposing of this product, and provide this information to the employee, customers, and users of this product. PLEASE NOTE THE MSDS REVISION NUMBER AT THE TOP OF THIS PAGE. If the MSDS Revision Number posted at the top of this page does not match the MSDS Revision Number on the product label, please contact Customer Service at the phone number included above for the correct MSDS. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard.

NOTICE: OSHA hazardous chemicals are listed in Section 2 if present at 1% or more. Carcinogens and extraordinarily/special hazardous chemicals are listed in Section 2 if present at .1% or more. Additional regulatory information for specific chemical categories is included in Section 15.

2. HAZARDOUS INGREDIENT INFORMATION

CAS No.	Ingredient Name & %	Source	Exposure Data
000071–36–3	n–Butyl alcohol 1.0 – 10% by Weight	OSHA:	100 ppm TWA; 300 mg/m3 TWA50 ppm Ceiling; 150 mg/m3 Ceiling
		ACGIH:	20 ppm TWA
		NIOSH:	50 ppm Ceiling; 150 mg/m3 Ceiling1400 ppm IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	50 ppm CEV; 150 mg/m3 CEV
		Mexico:	50 ppm STEL; 150 mg/m3 STEL
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Eye and mucous membrane irritation CNS depression
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
000095–63–6	Pseudocumene 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	25 ppm TWA; 125 mg/m3 TWA
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

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CAS No.	Ingredient Name & %	Source	Exposure Data
000108–67–8	TRIMETHYLBENZENE 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	25 ppm TWA; 125 mg/m3 TWA
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
000110–43–0	Methyl n–amyl ketone 1.0 – 10% by Weight	OSHA:	100 ppm TWA; 465 mg/m3 TWA
		ACGIH:	50 ppm TWA
		NIOSH:	100 ppm TWA; 465 mg/m3 TWA800 ppm IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	25 ppm TWAEV; 115 mg/m3 TWAEV
		Mexico:	50 ppm TWA; 235 mg/m3 TWA100 ppm STEL; 465 mg/m3 STEL
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Irritation; liver kidney
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
007727–43–7	Barium sulfate 1.0 – 10% by Weight	OSHA:	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
		ACGIH:	10 mg/m3 TWA
		NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)50 mg/m3 IDLH (as Ba, except barium sulfate)
		Supplier:	No Established Limit
		OHSA, CAN:	10 mg/m3 TWAEV (total dust)
		Mexico:	0.5 mg/m3 TWA
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Eye nose
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
025036–25–3	Polymer of epoxy resin and bisphenol A 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit

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	Mexico:	No Established Limit
	Brazil:	No Established Limit
	Source	Health Data
	NIOSH:	No Established Limit
	Source	Carcinogen Data
	OSHA:	Select Carcinogen: No
	NTP:	Known Carcinogen: No; Suspected Carcinogen: No
	IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
025085–99–8	OXIRANE, 2,2'–4–BUTYLIDENEBISPHENYLENEOXYMETHYLENE 10 – 25% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
064742–95–6	Petroleum naphtha, light aromatic 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
14807–96–6*	Talc (*non–asbestiform) 10 – 25% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No

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IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

3. HAZARD IDENTIFICATION

Overview:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing. Contains 1,2,4–Trimethylbenzene which can cause central nervous system depression, anemia and bronchitis.
Inhalation:	May be harmful or fatal if inhaled. Causes nose and throat irritation. Vapors may affect the brain or nervous system causing dizziness, headache or nausea.
Eyes:	Causes severe eye irritation. Do not get in eyes.
Skin:	Causes skin irritation. May cause allergic skin reaction. May be harmful if absorbed through the skin.
Ingestion:	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.
Chronic Effects:	Contains an ingredient which can cause organ damage (See Section 2 and Section 15 for each ingredient). Cancer hazard. Contains an ingredient which can cause cancer (See Section 2 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
HMIS Rating:	Health: 2 Flammability: 2 Reactivity: 0

4. FIRST AID MEASURES

General:	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion:	If swallowed, immediately contact Poison Control Center at 1–800–854–6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory:	Select equipment to provide protection from the ingredients listed in Section 2 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1–800–243–4630, in Canada call 1–800–267–4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.
Eyes:	Do not get in eyes. Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, safety glasses, chemical goggles, and/or head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Skin/Hand:	Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Engineering Controls:	Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation.
Other Work Practices:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

6. FIRE AND EXPLOSION INFORMATION

Flash Point:	F: 110 C: 43
Lower Explosive Limit (LEL):	1 (%vol in air) at Normal Atmospheric Temp and Pressure
Fire and Explosion Hazards:	

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	Combustible liquid and vapor. FLAMMABLE/COMBUSTIBLE MATERIALS: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) creating a vapor explosion hazard. Runoff to sewers may create fire or explosion hazard. Containers may explode when heated.
Fire Fighting Procedures:	CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO_2, water spray or alcohol–resistant foam. LARGE FIRES: Use water spray, fog, or alcohol–resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material. Also Reference Emergency Response Guide Number: 127

7. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	No Established Limit
Specific Gravity:	1.500771
Boiling Point (F):	243
Vapor Density:	Heavier than air
VOC Content (lbs):	Refer to the Technical Data Sheet for this product.
Evaporation Rate:	Slower than ether

8. STABILITY AND REACTIVITY DATA

General:	This product is stable and hazardous polymerization will not occur.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decompostion:	May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Carbon Dioxide and Carbon Monoxide.

9. HANDLING AND STORAGE

Storage Temperature:	Store between 40–100°F (4–38°C).
Handling and Storage Precautions:	Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Vapors may cause flash fire or ignite explosively. Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation. Do not get in eyes, on skin or clothing. Close container after each use. Wash thoroughly after handling.

10. TOXICOLOGICAL DATA

General:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. No additional information provided for this product. See Section 2 for chemical specific data.

11. ECOLOGICAL DATA

General:	No additional information provided for this product. See Section 2 for chemical specific data.

12. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures:	ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non–sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non–combustible material and transfer to containers. Use non–sparking tools to collect absorbed material.

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Public Safety:	CALL CHEMTREC at (800)–424–9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet). Also, Reference Emergency Response Guide Number: 127

13. DISPOSAL CONSIDERATION

Waste Disposal:	Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

14. TRANSPORTATION INFORMATION

DOT (Domestic Surface Transportation)		IMO / IMDG (Ocean Transportation)	
DOT Proper Shipping Name: PAINT		IMDG Proper Shipping Name: PAINT	
DOT Hazard Class:	3	IMDG Hazard Class:	3.3 – High flashpoint flammable liquids
UN / NA Number:	UN 1263	UN Number:	UN 1263
DOT Packing Group:	III	IMDG Packing Group:	III
CERCLA/DOT RQ:	3539 gal. / 44248 lbs.	System Reference Code:	2

15. REGULATORY INFORMATION

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all–inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory. **Note:** Any chemical ingredients listed in Section 15, that do not also appear in Section 2, are contained in the product at a concentration below the applicable OSHA threshold level of 1% or 0.1%.
WHMIS Classification:	B3:D2B
Regulatory List	Product Ingredients on List
DOT Marine Pollutants (10%):	
(No Product Ingredients Listed)	
DOT Severe Marine Pollutants (1%):	
(No Product Ingredients Listed)	
EPCRA 311/312 Chemicals and RQs (>.1%) :	
(No Product Ingredients Listed)	
EPCRA 302 Extremely Hazardous (>.1%) :	
(No Product Ingredients Listed)	
EPCRA 313 Toxic Chemicals (>.1%) :	
000098–82–8	Cumene
000071–36–3	n–Butyl alcohol
000095–63–6	Pseudocumene
001330–20–7	Xylenes (o–, m–, p– isomers)
Mass RTK Substances (>1%) :	
007727–43–7	Barium sulfate
000110–43–0	Methyl n–amyl ketone
000071–36–3	n–Butyl alcohol
000095–63–6	Pseudocumene
000108–67–8	TRIMETHYLBENZENE
Mass Extraordinarily Haz Sub (>.01%) :	

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(No Product Ingredients Listed)

Penn RTK Substances (>1%) :

007727–43–7	Barium sulfate
000110–43–0	Methyl n–amyl ketone
000071–36–3	n–Butyl alcohol
000095–63–6	Pseudocumene

Penn Special Hazardous Substances (>.01%) :

(No Product Ingredients Listed)

Rhode Island Hazardous Substances (>.1%) :

000071–36–3	n–Butyl alcohol

RCRA Status (>.01%) :

(No Product Ingredients Listed)

N.J. RTK Substances (>1%) :

(No Product Ingredients Listed)

N.J. Special Hazardous Substances (>.01%) :

000098–82–8	Cumene
000071–36–3	n–Butyl alcohol
001330–20–7	Xylenes (o–, m–, p– isomers)

N.J. Env. Hazardous Substances (>.1%) :

000098–82–8	Cumene
000071–36–3	n–Butyl alcohol
000095–63–6	Pseudocumene
001330–20–7	Xylenes (o–, m–, p– isomers)

Proposition 65 – Carcinogens (>0%):

007440–02–0	Nickel

Proposition 65 – Female Repro Toxins (>0%):

(No Product Ingredients Listed)

Proposition 65 – Male Repro Toxins (>0%):

(No Product Ingredients Listed)

Proposition 65 – Developmental Toxins (>0%):

(No Product Ingredients Listed)

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

End Of Document

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MATERIAL SAFETY DATA SHEET

Sales Order: {SalesOrd}

INTERTUF 262/INTERSEAL 670/INTERBOND 201 CONVERTER

MSDS Revision No:	A7 -7
MSDS Revision Date:	01/07/2004

International Paint Inc.

6001 Antoine Drive

Houston, Texas 77091

EMERGENCY NUMBERS:	
(800) 424-9300	CHEMTREC (USA)
(703) 527-3887	CHEMTREC (Intl)
(800) 854-6813	Poison Control Center
CUSTOMER SERVICE:	(Non-Emergency)
(800) 589-1267	International Paint
(800) 631-7481	Interlux

1. GENERAL INFORMATION

Product Identity: INTERTUF 262/INTERSEAL 670/INTERBOND 201 CONVERTER

Bulk Sales Reference No: KHA414

IMPORTANT: Read this MSDS before handling or disposing of this product, and provide this information to the employee, customers, and users of this product. PLEASE NOTE THE MSDS REVISION NUMBER AT THE TOP OF THIS PAGE. If the MSDS Revision Number posted at the top of this page does not match the MSDS Revision Number on the product label, please contact Customer Service at the phone number included above for the correct MSDS. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard.

NOTICE: OSHA hazardous chemicals are listed in Section 2 if present at 1% or more. Carcinogens and extraordinarily/special hazardous chemicals are listed in Section 2 if present at .1% or more. Additional regulatory information for specific chemical categories is included in Section 15.

2. HAZARDOUS INGREDIENT INFORMATION

CAS No.	Ingredient Name & %	Source	Exposure Data
000071-36-3	n-Butyl alcohol 25 - 50% by Weight	OSHA:	100 ppm TWA; 300 mg/m3 TWA50 ppm Ceiling; 150 mg/m3 Ceiling
		ACGIH:	20 ppm TWA
		NIOSH:	50 ppm Ceiling; 150 mg/m3 Ceiling1400 ppm IDLH
		Supplier:	No Data Available
		OHSA, CAN:	50 ppm CEV; 150 mg/m3 CEV
		Mexico:	50 ppm STEL; 150 mg/m3 STEL
		Brazil:	No Data Available
		Source	**Health Data**
		NIOSH:	Eye and mucous membrane irritation CNS depression
		Source	**Carcinogen Data**
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data

000107-15-3	Ethylene diamine 1.0 - 10% by Weight	OSHA:	10 ppm TWA; 25 mg/m3 TWA
		ACGIH:	10 ppm TWA
		NIOSH:	10 ppm TWA; 25 mg/m3 TWA1000 ppm IDLH
		Supplier:	No Data Available
		OHSA, CAN:	10 ppm TWAEV; 25 mg/m3 TWAEV
		Mexico:	10 ppm TWA; 25 mg/m3 TWA3 mg/m3 STEL
		Brazil:	No Data Available
		Source	**Health Data**
		NIOSH:	Sensitization and primary irritation to the skin mucous membranes
		Source	**Carcinogen Data**
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

3. HAZARD IDENTIFICATION

Overview:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing.
Inhalation:	May be harmful or fatal if inhaled. May cause lung injury. Causes nose and throat irritation. Vapors may affect the brain or nervous system causing dizziness, headache or nausea.
Eyes:	Causes eye burns. Do not get in eyes.
Skin:	Causes skin burns. May be harmful if absorbed through the skin.
Ingestion:	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.
Chronic Effects:	Contains an ingredient which can cause organ damage (See Section 2 and Section 15 for each ingredient). Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 2 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
HMIS Rating:	Health: 3 Flammability: 2 Reactivity: 0

4. FIRST AID MEASURES

General:	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion:	If swallowed, immediately contact Poison Control Center at 1-800-854-6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory:	Select equipment to provide protection from the ingredients listed in Section 2 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1-800-243-4630, in Canada call 1-800-267-4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.
Eyes:	Do not get in eyes. Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site-specific conditions of use, safety glasses, chemical goggles, and/or head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.

Skin/Hand:	Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site-specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Engineering Controls:	Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation.
Other Work Practices:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

6. FIRE AND EXPLOSION INFORMATION

Flash Point:	F: 103 C: 39
Lower Explosive Limit (LEL):	1.73 (%vol in air) at Normal Atmospheric Temp and Pressure
Fire and Explosion Hazards:	Combustible liquid and vapor. FLAMMABLE/COMBUSTIBLE MATERIALS: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) creating a vapor explosion hazard. Runoff to sewers may create fire or explosion hazard. Containers may explode when heated.
Fire Fighting Procedures:	CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO2, water spray or alcohol-resistant foam. LARGE FIRES: Use water spray, fog, or alcohol-resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material. **Also Reference Emergency Response Guide Number:** 127

7. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	Not Determined
Specific Gravity:	0.92968
Boiling Point (F):	243
Vapor Density:	Heavier than air
VOC Content (lbs):	Refer to the Technical Data Sheet for this product.
Evaporation Rate:	Slower than ether

8. STABILITY AND REACTIVITY DATA

General:	This product is stable and hazardous polymerization will not occur.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decompostion:	May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Carbon Dioxide and Carbon Monoxide.

9. HANDLING AND STORAGE

Storage Temperature:	Store between 32 and 120 F
Handling and Storage Precautions:	Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Vapors may cause flash fire or ignite explosively. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. Do not get in eyes, on skin or clothing. Close container after each use. Wash thoroughly after handling.

10. TOXICOLOGICAL DATA

General:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. No additional information provided for this product. See Section 2 for chemical specific data.

11. ECOLOGICAL DATA

General:	No additional information provided for this product. See Section 2 for chemical specific data.

12. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures:	ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non-sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Use non-sparking tools to collect absorbed material.
Public Safety:	CALL CHEMTREC at (800)-424-9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet). **Also, Reference Emergency Response Guide Number: 127**

13. DISPOSAL CONSIDERATION

Waste Disposal:	Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

14. TRANSPORTATION INFORMATION

DOT (Domestic Surface Transportation)		IMO / IMDG (Ocean Transportation)	
DOT Proper Shipping Name:		**IMDG Proper Shipping Name:**	
PAINT		PAINT	
DOT Hazard Class:	3	**IMDG Hazard Class:**	3.3 - High flashpoint flammable liquids
UN / NA Number:	UN 1263	**UN Number:**	UN 1263
DOT Packing Group:	III	**IMDG Packing Group:**	III
CERCLA/DOT RQ:	2073 gal. / 16057 lbs.	**System Reference Code:**	1

15. REGULATORY INFORMATION

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory. **Note:** Any chemical ingredients listed in Section 15, that do not also appear in Section 2, are contained in the product at a concentration below the applicable OSHA threshold level of 1% or 0.1%.
WHMIS Classification:	B3; D2B; E
Regulatory List	**Product Ingredients on List**
DOT Marine Pollutants (10%):	
(No Product Ingredients Listed)	
DOT Severe Marine Pollutants (1%):	
(No Product Ingredients Listed)	
EPCRA 311/312 Chemicals and RQs (>.1%) :	
000071-36-3	n-Butyl alcohol : 5000 lb final RQ; 2270 kg final RQ
000107-15-3	Ethylene diamine : 5000 lb final RQ; 2270 kg final RQ
EPCRA 302 Extremely Hazardous (>.1%) :	

000107-15-3	Ethylene diamine : 10,000 lb TPQ
EPCRA 313 Toxic Chemicals (>.1%) :	
000071-36-3	n-Butyl alcohol
Mass RTK Substances (>1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
Mass Extraordinarily Haz Sub (>.01%) :	
000107-15-3	Ethylene diamine
Penn RTK Substances (>1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
Penn Special Hazardous Substances (>.01%) :	
(No Product Ingredients Listed)	
Rhode Island Hazardous Substances (>.1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
RCRA Status (>.01%) :	
(No Product Ingredients Listed)	
N.J. RTK Substances (>1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
N.J. Special Hazardous Substances (>.01%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
N.J. Env. Hazardous Substances (>.1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
Proposition 65 - Carcinogens (>0%):	
(No Product Ingredients Listed)	
Proposition 65 - Female Repro Toxins (>0%):	
(No Product Ingredients Listed)	
Proposition 65 - Male Repro Toxins (>0%):	
(No Product Ingredients Listed)	
Proposition 65 - Developmental Toxins (>0%):	
(No Product Ingredients Listed)	

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

End Of Document

CHEVRON

MATERIAL SAFETY DATA SHEET

N/AP = NOT APPLICABLE
N/AV = NOT AVAILABLE

------SECTION 1--PRODUCT IDENTIFICATION AND USE ------

MSDS 1048

PRODUCT IDENTIFIER
KEROSENE (GENERIC)

WHMIS CLASSIFICATION
B3, D2B

PRODUCT IDENTIFICATION NUMBER (PIN)
UN 1268

PRODUCT USE
VARIOUS

SUPPLIERS NAME
CHEVRON CANADA LIMITED

STREET ADDRESS
1500 - 1050 WEST PENDER STREET

CITY
VANCOUVER

PROVINCE
B.C.

POSTAL CODE
V6E 3T4

EMERGENCY TELEPHONE NO.
1-800-457-2022

MANUFACTURER'S NAME
CHEVRON CANADA LIMITED

STREET ADDRESS
1500 - 1050 WEST PENDER STREET

CITY
VANCOUVER

PROVINCE
B.C.

POSTAL CODE
V6E 3T4

EMERGENCY TELEPHONE NO.
1-800-457-2022

------SECTION 2--HAZARDOUS INGREDIENTS ------

HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD50 OF INGREDIENT (SPECIFY SPECIES AND ROUTE)
KEROSENE	60-100	8008206	>5.0 G/KG RAT, ORAL >2.0 G/KG RABBIT, ACUTE DERMAL

HAZARDOUS INGREDIENTS	LC50 OF INGREDIENT (SPECIFY SPECIES)
KEROSENE	>5 MG/L FOR 4HRS., RAT

------SECTION 3--PHYSICAL DATA ------

PHYSICAL STATE
LIQUID

ODOUR AND APPEARANCE
PALE YELLOW LIQUID WITH A PETROLEUM ODOUR

ODOUR THRESHOLD (PPM)
N/AV

VAPOUR PRESSURE (MM HG)
N/AV

VAPOUR DENSITY (AIR=1)
N/AV

EVAPORATION RATE
N/AV

BOILING POINT (DEG. C)
204 - 300 DEG. C

FREEZING POINT (DEG. C)
N/AV

PH
N/AV

SPECIFIC GRAVITY
0.85 @ 15.6/15.6 DEG. C (MIN.)

COEFF.WATER/OIL DIST.
N/AV

------SECTION 4--FIRE AND EXPLOSION DATA ------

FLAMMABILITY

YES (X)
NO ( )

IF YES, UNDER WHICH CONDITIONS?
COMBUSTIBLE-LIQUID EVAPORATES AND FORMS VAPOUR (FUMES) THAT CAN CATCH FIRE AND BURN WITH EXPLOSIVE VIOLENCE. FIRE HAZARD IS GREATER AS LIQUID TEMPERATURE RISES ABOVE 85 DEG. F.

MEANS OF EXTINCTION
CO_2, DRY CHEMICAL, FOAM AND WATER FOG.

FLASH POINT (DEG. C) AND METHOD
38 DEG. C (TCC)

UPPER FLAMMABLE LIMIT (% BY VOLUME)
4.7

LOWER FLAMMABLE LIMIT (% BY VOLUME)
0.6

AUTOIGNITION TEMPERATURE (DEG. C)
N/AV

HAZARDOUS COMBUSTION PRODUCTS
CARBON MONOXIDE

EXPLOSION DATA:
SENSITIVITY TO IMPACT
N/AV

SENSITIVITY TO STATIC DISCHARGE
N/AV

------SECTION 5--REACTIVITY DATA ------

CHEMICAL STABILITY
YES (X)
NO ( )

IF NO, UNDER WHICH CONDITIONS?

INCOMPATIBILITY WITH OTHER SUBSTANCES
YES (X)
NO ( )

IF SO, WHICH ONES?
MAY REACT WITH STRONG OXIDIZING AGENTS, SUCH AS CHLORATES, NITRATES, PEROXIDES, ETC.

REACTIVITY, AND UNDER WHAT CONDITIONS
N/AV

HAZARDOUS DECOMPOSITION PRODUCTS
N/AV

------SECTION 6--TOXICOLOGICAL PROPERTIES ------

ROUTE OF ENTRY

SKIN CONTACT (X)
SKIN ABSORPTION ( )
EYE CONTACT ( )
INHALATION (X)
INGESTION ( )

EFFECTS OF ACUTE EXPOSURE TO PRODUCT
THIS SUBSTANCE IS A MODERATE SKIN IRRITANT, SO CONTACT WITH THE SKIN COULD CAUSE PROLONGED (DAYS) INJURY TO THE AFFECTED AREA. THE DEGREE OF INJURY WILL DEPEND ON THE AMOUNT OF MATERIAL THAT GETS ON THE SKIN AND THE SPEED AND THOROUGHNESS OF THE FIRST AID TREATMENT. SIGNS AND SYMPTOMS MAY INCLUDE PAIN OR A FEELING OF HEAT, DISCOLORATION, SWELLING AND BLISTERING. BECAUSE OF THE LOW VISCOSITY OF THIS SUBSTANCE, IT CAN DIRECTLY ENTER THE LUNGS IF IT IS SWALLOWED. THIS CAN OCCUR DURING THE ACT OF SWALLOWING OR WHEN VOMITING THE SUBSTANCE. ONCE IN THE LUNGS, THE SUBSTANCE IS VERY DIFFICULT TO REMOVE AND CAN CAUSE SEVERE INJURY TO THE LUNGS AND DEATH.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT
PROLONGED BREATHING OF VAPOURS CAN CAUSE CENTRAL NERVOUS SYSTEM EFFECTS. SIGNS AND SYMPTOMS OF CENTRAL NERVOUS SYSTEM EFFECTS MAY INCLUDE ONE OR MORE OF THE FOLLOWING: HEADACHE, DIZZINESS, LOSS OF APPETITE, WEAKNESS AND LOSS OF COORDINATION.
NOT EXPECTED TO CAUSE PROLONGED OR SIGNIFICANT EYE IRRITATION AND SHOULD BE PRACTICALLY NONTOXIC TO INTERNAL ORGANS IF IT IS GETS ON SKIN OR IS SWALLOWED.

EXPOSURE LIMITS
N/AV

TERATOGENICITY
N/AV

IRRITANCY OF PRODUCT
SEE EFFECTS OF ACUTE EXPOSURE TO PRODUCT

REPRODUCTIVE TOXICITY
N/AV

SENSITIZATION TO PRODUCT
NOT SENSITIZING

MUTAGENICITY
SEE SECTION 9

CARCINOGENICITY
SEE SECTION 9

SYNERGISTIC PRODUCTS
N/AV

------SECTION 7--PREVENTIVE MEASURES ------

GLOVES (SPECIFY)
NITRILE, VITON

RESPIRATOR (SPECIFY)
NO SPECIAL RESPIRATORY PROTECTION IS NORMALLY REQUIRED. HOWEVER, IF OPERATING CONDITIONS CREATE HIGH AIRBORNE CONCENTRATIONS, THE USE OF AN AIR-PURIFYING RESPIRATOR WITH AN ORGANIC VAPOUR CARTRIDGE IS RECOMMENDED.

EYE (SPECIFY)
NONE, HOWEVER, EYE CONTACT CAN BE AVOIDED BY WEARING CHEMICAL GOGGLES.

FOOTWEAR (SPECIFY)
N/AV

CLOTHING (SPECIFY)
FOR MAXIMUM PROTECTION, IF SEVERE SPLASHING IS ANTICIPATED, RAIN GEAR MADE FROM NITRILE OR POLYURETHANE IS RECOMMENDED.

OTHER (SPECIFY)
N/AV

ENGINEERING CONTROLS (SPECIFY, E.G. VENTILATION, ENCLOSED PROCESS)
USE THIS MATERIAL ONLY IN WELL VENTILATED AREAS.

LEAK AND SPILL PROCEDURE
ELIMINATE ALL SOURCES OF IGNITION IN VICINITY OF SPILL OR RELEASED VAPOUR. CLEAN UP SPILLS IMMEDIATELY, OBSERVING PRECAUTIONS IN SECTION 7 - PREVENTIVE MEASURES. THIS MATERIAL IS CONSIDERED TO BE A WATER POLLUTANT, AND RELEASES OF THIS PRODUCT SHOULD BE PREVENTED FROM CONTAMINATING SOIL AND WATER AND FROM ENTERING DRAINAGE AND SEWER SYSTEMS. CLEAN UP SMALL SPILLS USING APPROPRIATE TECHNIQUES SUCH AS SORBENT MATERIALS OR PUMPING. WHERE FEASIBLE AND APPROPRIATE, REMOVE CONTAMINATED SOIL. FOLLOW PRESCRIBED PROCEDURES FOR REPORTING AND RESPONDING TO LARGER RELEASES.

WASTE DISPOSAL
PLACE CONTAMINATED MATERIALS IN DISPOSABLE CONTAINERS AND DISPOSE OF IN A MANNER CONSISTENT WITH APPLICABLE REGULATIONS.

HANDLING PROCEDURES AND EQUIPMENT
DO NOT USE OR STORE NEAR FLAME, SPARKS OR HOT SURFACES. USE ONLY IN WELL VENTILATED AREA. KEEP CONTAINER CLOSED. DO NOT WELD, HEAT OR DRILL CONTAINER. REPLACE CAP OR BUNG. EMPTIED CONTAINER STILL CONTAINS HAZARDOUS OR EXPLOSIVE VAPOUR OR LIQUID. CAUTION! DO NOT USE PRESSURE TO EMPTY DRUM OR DRUM MAY RUPTURE WITH EXPLOSIVE FORCE.

WARNING! NOT FOR USE AS PORTABLE HEATER OR APPLIANCE FUEL. TOXIC FUMES MAY ACCUMULATE AND CAUSE DEATH.

STORAGE REQUIREMENTS
DO NOT STORE NEAR FLAME, SPARKS OR HOT SURFACES.

SPECIAL SHIPPING INFORMATION
N/AV

------SECTION 8--FIRST AID MEASURES ------

SPECIFIC MEASURES

EYE CONTACT: NO FIRST AID PROCEDURES ARE REQUIRED. HOWEVER, AS A PRECAUTION, FLUSH EYES WITH FRESH WATER FOR 15 MINUTES. REMOVE CONTACT LENSES IF WORN.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND WASH SKIN THOROUGHLY WITH SOAP AND WATER. SEE A DOCTOR IF ANY SIGNS OR SYMPTOMS DESCRIBED IN THIS DOCUMENT OCCUR. DISCARD CONTAMINATED NON-WATERPROOF SHOES AND BOOTS. WASH CONTAMINATED CLOTHING.

INHALATION: IF ANY SIGNS OR SYMPTOMS DESCRIBED IN THIS DOCUMENT OCCUR, MOVE THE PERSON TO FRESH AIR. IF ANY OF THESE EFFECTS CONTINUE, SEE A DOCTOR.

INGESTION: IF SWALLOWED, GIVE WATER OR MILK TO DRINK AND TELEPHONE FOR MEDICAL ADVICE. DO NOT MAKE PERSON VOMIT UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. IF MEDICAL ADVICE CANNOT BE OBTAINED, THEN TAKE THE PERSON AND PRODUCT CONTAINER TO THE NEAREST MEDICAL EMERGENCY TREATMENT CENTRE OR HOSPITAL. NOTE TO PHYSICIAN: INGESTION OF THIS PRODUCT OR SUBSEQUENT VOMITING CAN RESULT IN ASPIRATION OF LIGHT HYDROCARBON LIQUID WHICH CAN CAUSE PNEUMONITIS.

------SECTION 9--ADDITIONAL HEALTH DATA ------

THIS PRODUCT CONTAINS A MIXTURE OF PETROLEUM HYDROCARBONS CALLED MIDDLE DISTILLATES (WHICH MEANS THEY BOIL BETWEEN APPROXIMATELY 350 DEG. F AND 700 DEG. F). BECAUSE OF THIS BROAD DESCRIPTION, MANY PRODUCTS ARE CONSIDERED MIDDLE DISTILLATES YET THEY ARE PRODUCED BY A VARIETY OF DIFFERENT PETROLEUM REFINING PROCESSES. TOXICOLOGY DATA DEVELOPED ON SOME MIDDLE DISTILLATES FOUND THAT THEY CAUSED POSITIVE RESPONSES IN SOME MUTAGENICITY TESTS AND CAUSED SKIN CANCER WHEN REPEATEDLY APPLIED TO MICE OVER THEIR LIFETIME. THIS PRODUCT MAY CONTAIN SOME MIDDLE DISTILLATES FOUND TO CAUSE THOSE ADVERSE EFFECTS.

PRODUCT TOXICOLOGY DATA

MINIMAL EFFECTS CLEARING IN LESS THAN 24 HOURS.
MODERATE IRRITATION AT 72 HOURS (MODERATE ERYTHEMA).
THE DERMAL LD50 IN RABBITS IS >5 ML/KG.
THE 4-HOUR INHALATION LC50 IN RATS IS >5 MG/L.
THE ORAL LD50 IN RATS IS >5 ML/KG.

PREPARATION DATE OF MSDS

PREPARED BY (GROUP, DEPARTMENT, ETC.)
CHEVRON CANADA LIMITED

PHONE NUMBER
(604) 668-5554

DATE
DECEMBER 1992

MATERIAL SAFETY DATA SHEET

K08304
01 00

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

K08304

HMIS CODES

Health	2*
Flammability	3
Reactivity	0

PRODUCT NAME
KRYLON* LINE-UP* Striping Paint (Solvent Based), Cover-Up Black

MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
Diversified Brands
Cleveland, OH 44115

EMERGENCY TELEPHONE NO.
(216) 566-2917

DATE OF PREPARATION
07-DEC-06

INFORMATION TELEPHONE NO.
(800) 247-3266

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT			UNITS	VAPOR PRESSURE
15	74-98-6	Propane				
			ACGIH TLV	2500	ppm	760 mm
			OSHA PEL	1000	ppm	
7	106-97-8	Butane				
			ACGIH TLV	800	ppm	760 mm
			OSHA PEL	800	ppm	
9	64742-89-8	V. M. & P. Naphtha				
			ACGIH TLV	300	ppm	12 mm
			OSHA PEL	300	ppm	
			OSHA PEL	400	ppm STEL	
12	108-88-3	Toluene				
			ACGIH TLV	50	ppm (Skin)	22 mm
			OSHA PEL	100	ppm (Skin)	
			OSHA PEL	150	ppm (Skin) STEL	
0.2	100-41-4	Ethylbenzene				
			ACGIH TLV	100	ppm	7.1 mm
			ACGIH TLV	125	ppm STEL	
			OSHA PEL	100	ppm	
			OSHA PEL	125	ppm STEL	
1	1330-20-7	Xylene				
			ACGIH TLV	100	ppm	5.9 mm
			ACGIH TLV	150	ppm STEL	
			OSHA PEL	100	ppm	
			OSHA PEL	150	ppm STEL	
2	111-76-2	2-Butoxyethanol				
			ACGIH TLV	20	ppm	0.88 mm
			OSHA PEL	25	ppm	
14	67-64-1	Acetone				
			ACGIH TLV	500	ppm	180 mm
			ACGIH TLV	750	ppm STEL	
			OSHA PEL	1000	ppm	
20	14807-96-6	Talc				
			ACGIH TLV	2	mg/m3 as Resp. Dust	
			OSHA PEL	2	mg/m3 as Resp. Dust	

Continued on page 2

0.7	1333-86-4	Carbon Black		
		ACGIH TLV	3.5	mg/m3
		OSHA PEL	3.5	mg/m3

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 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
Propellant < 0 F	0.9	12.8

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.

Continued on page 3

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.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

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.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

Continued on page 4

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	7.26 lb/gal	869 g/l
SPECIFIC GRAVITY	0.87	
BOILING POINT	<0 - 343 F	<-18 - 172 C
MELTING POINT	Not Available	
VOLATILE VOLUME	80 %	
EVAPORATION RATE	Faster than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
pH	7.0	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

Volatile Weight 49.49% 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

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, blood forming, cardiovascular and reproductive systems.

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

Continued on page 5

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
64742-89-8	V. M. & P. Naphtha				
		LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
108-88-3	Toluene				
		LC50	RAT	4HR	4000 ppm
		LD50	RAT		5000 mg/kg
100-41-4	Ethylbenzene				
		LC50	RAT	4HR	Not Available
		LD50	RAT		3500 mg/kg
1330-20-7	Xylene				
		LC50	RAT	4HR	5000 ppm
		LD50	RAT		4300 mg/kg
111-76-2	2-Butoxyethanol				
		LC50	RAT	4HR	Not Available
		LD50	RAT		470 mg/kg
67-64-1	Acetone				
		LC50	RAT	4HR	Not Available
		LD50	RAT		5800 mg/kg
14807-96-6	Talc				
		LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
1333-86-4	Carbon Black				
		LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available

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

No data available.

Continued on page 6

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
108-88-3	Toluene	12	
100-41-4	Ethylbenzene	0.2	
1330-20-7	Xylene	1	
	Glycol Ethers	2	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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.

DOD Hazardous Materials Information System
DoD 6050.5-L
AS OF July 1998

FSC: 8010
NIIN: 011154745
Manufacturer's CAGE: 11111
Part No. Indicator: A
Part Number/Trade Name: EASYPOXY WHITE, 3175

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General Information

==========

Item Name:
Company's Name: PETTIT PAINT COMPANY, INC.
Company's Street: 36 PINE STREET
Company's P. O. Box:
Company's City: BOROUGH OF ROCKAWAY
Company's State: NJ
Company's Country: US
Company's Zip Code: 07866
Company's Emerg Ph #: 800-548-0489
Company's Info Ph #: 201-625-3100
Distributor/Vendor # 1:
Distributor/Vendor # 1 Cage:
Distributor/Vendor # 2:
Distributor/Vendor # 2 Cage:
Distributor/Vendor # 3:
Distributor/Vendor # 3 Cage:
Distributor/Vendor # 4:
Distributor/Vendor # 4 Cage:
Safety Data Action Code:
Safety Focal Point: N
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 002
Status:
Date MSDS Prepared: 16MAY89
Safety Data Review Date: 07JAN93
Supply Item Manager: GSA
MSDS Preparer's Name:
Preparer's Company:
Preparer's St Or P. O. Box:
Preparer's City:
Preparer's State:
Preparer's Zip Code:
Other MSDS Number:
MSDS Serial Number: BGMLG
Specification Number:
Spec Type, Grade, Class:
Hazard Characteristic Code: NK
Unit Of Issue: NK
Unit Of Issue Container Qty: N/K
Type Of Container: N/K
Net Unit Weight:

Report for NIIN: 011154745

NRC/State License Number:
Net Explosive Weight:
Net Propellant Weight-Ammo:
Coast Guard Ammunition Code:

==========

Ingredients/Identity Information

Confidential Business Information

==========
Proprietary: NO
Ingredient: ALIPHATIC SOLVENT NAPHTHA (PETROLEUM); (MINERAL SPIRITS). VP: 10. LD50:(ORAL,RAT) >25 ML/KG.
Ingredient Sequence Number: 01
Percent: 25-35
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 1003692SN
CAS Number: 64742-88-7
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE
Other Recommended Limit: 100 PPM (MFR)

Proprietary: NO
Ingredient: RUTILE; (TITANIUM DIOXIDE). LD50:(ORAL,RAT) >9500 MG/KG.
Ingredient Sequence Number: 02
Percent: 0-35
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: VM2940000
CAS Number: 1317-80-2
OSHA PEL: 10 MG/M3
ACGIH TLV: 10 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CARBON BLACK
Ingredient Sequence Number: 03
Percent: 0-4
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: FF5800000
CAS Number: 1333-86-4
OSHA PEL: 3.5 MG/M3
ACGIH TLV: 3.5 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CALCIUM CARBONATE
Ingredient Sequence Number: 04
Percent: 0-20
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: EV9580000
CAS Number: 1317-65-3
OSHA PEL: 15MG/M3 TDUST;5 RESP

Report for NIIN: 011154745

ACGIH TLV: 10 MG/M3
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: SUPDAT:THERE IS NO SPECIFIC ANTIDOTE FOR EFTS FROM OVEREXP TO MATL. TREATMENT SHOULD BE DIRECTED @ CTL OF SYMP (ING 6)
Ingredient Sequence Number: 05
Percent: N/K
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 9999999ZZ

Confidential Business Information

CAS Number:
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: ING 5:AND CLINICAL CONDITION.
Ingredient Sequence Number: 06
Percent: N/K
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 9999999ZZ
CAS Number:
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)
Other Recommended Limit: N/K
==========

Physical/Chemical Characteristics

==========
Appearance And Odor: N/K (FP N)
Boiling Point: >373F,>189C
Melting Point: N/K (FP N)
Vapor Pressure (MM Hg/70 F): SEE ING 1
Vapor Density (Air=1): HV THN AIR
Specific Gravity: 1.08-1.50(FP N)
Decomposition Temperature: N/K (FP N)
Evaporation Rate And Ref: SLOWER THAN ETHER
Solubility In Water: N/K (FP N)
Percent Volatiles By Volume: 40-50
Viscosity:
pH: N/K
Radioactivity:
Form (Radioactive Matl):
Magnetism (Milligauss): N/P
Corrosion Rate (IPY): N/K-FP N
Autoignition Temperature:
==========

Fire and Explosion Hazard Data

==========
Flash Point: 105F/40.6C
Flash Point Method: TCC
Lower Explosive Limit: 1

Report for NIIN: 011154745

Upper Explosive Limit: N/K (FP N)
Extinguishing Media: FOAM, CO*2, DRY CHEMICAL, WATER FOG. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT & CAN BE REIGNITED.
Special Fire Fighting Proc: USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N).
Unusual Fire And Expl Hazrds: CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED W/WATER TO PREVENT VAPOR PRESSURE BUILDUP, WHICH COULD RESULT IN CONTAINER RUPTURE.
==========

Reactivity Data

==========
Stability: YES
Cond To Avoid (Stability): NONE
Materials To Avoid: STRONG OXIDANTS LIKE LIQUID CHLORINE, CONCENTRATED OXYGEN, SODIUM/CALCIUM HYPOCHLORITE.
Hazardous Decomp Products: FUMES, SMOKE & CARBON MONOXIDE, IN THE CASE OF

Confidential Business Information

INCOMPLETE COMBUSTION.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT

Health Hazard Data

LD50-LC50 Mixture: SEE INGREDIENTS.
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: NO
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: SEE SIGNS & SYMPTOMS OF OVEREXPOSURE SECTION (FP N).
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NOT RELEVANT.
Signs/Symptoms Of Overexp: INHALATION OF HIGH VAPOR CONCENTRATIONS MAY HAVE RESULTS RANGING FROM DIZZINESS,HEADACHES,GIDDINESS,NAUSEA TO UNCONSCIOUSNESS.PROLONG/REPEATED LIQUID CONTACT W/SKIN WILL DRY & DEFAT SKIN, LEADING TO IRRITATION & DERMATITIS.
Med Cond Aggravated By Exp: N/K (FP N)
Emergency/First Aid Proc: EYE:IMME FLUSH W/LGE AMTS OF WATER FOR AT LEAST 15 MIN OR UNTIL IRRITATION SUBSIDES.INGES:DO NOT INDUCE VOM,CALL PHYS.IF VOM OCCUR,KEEP HEAD BELOW HIPS TO KEEP LIQ OUT OF LUNGS.SKIN:REMOVE ANY CONTAM CLTHNG,& WASH SKIN W/SOAP & WATER. INHALATION:REMOVE FROM EXPOSURE IMMEDIATELY.IF BREATHING IS IRREGULAR/STOPPED,START RESUSCITATION, ADMINISTER OXYGEN.CALL A PHYSICIAN.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: RMOV ALL IGN SOURCE.KEEP PEOPLE AWAY.RCOVR FREE LIQ.ADD ABSOR(SAND,EARTH,SAWDUST,ETC.)TO SPILL AREA.AVOID BRTHNG VAPR. VENT CONFIND SPACE.OPEN ALL WINDOW & DOOR.KEEP PETRO PROD OUT OF SEWR & WTRCOURSE BY DIKNG/IMPOUNDNG.ADVISE AUTH IF PROD (SUP DAT)
Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
Waste Disposal Method: DISPOSAL MUST BE I/A/W FEDERAL, STATE & LOCAL REGULATIONS (FP N). ASSURE CONFORMITY W/APPLICABLE DISPOSAL REGULATIONS.

Report for NIIN: 011154745

DISPOSE OF ABSORBED MATERIAL AT AN RCRA APPROVED DISPOSAL SITE OR FACILITY.
Precautions-Handling/Storing: KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT HANDLE/STORE NEAR HEAT, SPARK, FLAME/STRONG OXIDANTS.
Other Precautions: NONE

Control Measures

Respiratory Protection: USE A NIOSH/MSHA APPROVED HYDROCARBON VAPOR CANNISTER/SUPPLIED-AIR RESPIRATORY PROTECTION IN CONFINED/ENCLOSED PLACES IF OCCUPATIONAL EXPOSURE LIMITS ARE EXCEEDED.
Ventilation: EXHAUST AT OVER 60 FPM.
Protective Gloves: USE CHEMICAL RESISTANT TYPE.
Eye Protection: CHEMICAL WORKERS GOGGLES (FP N).
Other Protective Equipment: USE A NIOSH APPROVED DUST RESPIRATOR WHEN SANDING THESE PRODUCTS IF OCCUPATIONAL EXPOSURE LIMITS ARE EXCEEDED.
Work Hygienic Practices: N/K (FP N)
Suppl. Safety & Health Data: SPILL PROC:HAS ENTERED OR MAY ENTER SEWER, WATERCOURSE OR EXTENSIVE LAND AREAS.

Transportation Data

Confidential Business Information

Transportation Action Code:
Transportation Focal Point: N
Trans Data Review Date: 88355
DOT PSN Code: LFE
DOT Symbol:
DOT Proper Shipping Name: PAINT
DOT Class: 3
DOT ID Number: UN1263
DOT Pack Group: III
DOT Label: FLAMMABLE LIQUID
DOT/DoD Exemption Number: N/R
IMO PSN Code: LCT
IMO Proper Shipping Name: PAINT OR PAINT RELATED MATERIAL
IMO Regulations Page Number: 3372
IMO UN Number: 1263
IMO UN Class: 3.3
IMO Subsidiary Risk Label: -
IATA PSN Code: SXH
IATA UN ID Number: 1263
IATA Proper Shipping Name: PAINT
IATA UN Class: 3
IATA Subsidiary Risk Class:
IATA Label: FLAMMABLE LIQUID
AFI PSN Code: SXH
AFI Symbols:
AFI Prop. Shipping Name: PAINT OR PAINT RELATED MATERIAL
AFI Class: 3
AFI ID Number: UN1263
AFI Pack Group: III
AFI Label:
AFI Special Prov:
AFI Basic Pac Ref:

Report for NIIN: 011154745

MMAC Code:
N.O.S. Shipping Name:
Additional Trans Data: CONTAINERS ASSUMED TO BE UNDER 110 GALLONS.
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Disposal Data
==========
Disposal Data Action Code:
Disposal Data Focal Point:
Disposal Data Review Date:
Rec # For This Disp Entry:
Tot Disp Entries Per NSN:
Landfill Ban Item:
Disposal Supplemental Data:
1st EPA Haz Wst Code New:
1st EPA Haz Wst Name New:
1st EPA Haz Wst Char New:
1st EPA Acute Hazard New:
2nd EPA Haz Wst Code New:
2nd EPA Haz Wst Name New:
2nd EPA Haz Wst Char New:
2nd EPA Acute Hazard New:
3rd EPA Haz Wst Code New:
3rd EPA Haz Wst Name New:
3rd EPA Haz Wst Char New:
3rd EPA Acute Hazard New:
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Label Data

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Label Required: YES
Technical Review Date: 07JAN93
Label Date: 07JAN93
MFR Label Number:
Label Status: G
Common Name:
Chronic Hazard: NO
Signal Word: WARNING!
Acute Health Hazard-None:
Acute Health Hazard-Slight:
Acute Health Hazard-Moderate: X
Acute Health Hazard-Severe:
Contact Hazard-None:
Contact Hazard-Slight: X
Contact Hazard-Moderate:
Contact Hazard-Severe:
Fire Hazard-None:
Fire Hazard-Slight:
Fire Hazard-Moderate: X
Fire Hazard-Severe:
Reactivity Hazard-None: X
Reactivity Hazard-Slight:
Reactivity Hazard-Moderate:
Reactivity Hazard-Severe:
Special Hazard Precautions: COMBUSTIBLE. AVOID OXIDIZERS. ACUTE:VAPORS MAY

Report for NIIN: 011154745

CAUSE DIZZINESS, HEADACHE, GIDDINESS, NAUSEA, UNCONSCIOUSNESS. LIQUID MAY CAUSE DRYING OR DEFATTING OF SKIN, IRRITATION, DERMATITIS. CHRONIC:NONE SPECIFIED BY MANUFACTURER.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: PETTIT PAINT CO INC
Label Street: 36 PINE ST
Label P.O. Box:
Label City: ROCKAWAY
Label State: NJ
Label Zip Code: 07866-3131
Label Country: US
Label Emergency Number: 800-548-0489
Year Procured:

Confidential Business Information

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: EQUIPMENT ENAMEL
PRODUCT CODE: 9073
JERZY BLACK

HMIS CODE:

H	F	R	P
3	3	0	
			OIL

SECTION I - MANUFACTURING IDENTIFICATION

MANUFACTURING'S NAME: Miller Paint Co., Inc
ADDRESS: 12812 N.E. Whitaker Way, Portland, OR 97230
NAME OF PREPARER:: Buckinger/Serra
DATE OF PREPARATION: 5/17/1999
D.O.T. CLASSIFICATION PAINT **CLASS:** 3 **UN:** 1263 **PACKING GROUP:** III

EMERGENCY PHONE: (800) 424-9300
INFORMATION PHONE: (503) 255-0190
DATE REVISED: 5/24/1999

SECTION II - HAZARDOUS INGRDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS#	OCCUPATION EXPOSURE LIMITS OSHA TWA	ACGIH TWA	OSHA STEL	VAPOR PRESSURE mmHg @	TEMP	Weight Percent
Isopropyl Alcohol	67-63-0	400 ppm	400 ppm	500 ppm	33	68F	< 10
*Xylene	1330-20-7	100 ppm	100 ppm	150 ppm	6.0	68F	< 5
Calcium Carbonate (d)	1317-65-3	10mg/m3	10mg/m3	None	N/A	N/A	< 10
Solvent Naptha, Light Aromatic	64742-95-6	25 ppm	25 ppm	150 ppm	2.7	68F	< 10
VM&P Naptha	8032-32-4	300 ppm	300 ppm	225 ppm	26	77F	30 - 40
Iron Oxide (d)	1309-37-1	10mg/m3	10mg/m3	None	N/A	N/A	< 10

*** No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present ***.

(d) Hazardous as dust when product is sanded

CARCINOGENICITY: NO **IARC MONOGRAPHS?** NO **OSHA REGULATED?** NO

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: 181 to 360 Deg F **POUNDS PER GALLON** 8.10 **SPECIFIC GRAVITY (H20=1)** 1.0

VAPOR DENSITY: HEAVIER THAN AIR **EVAPORATION RATE:** SLOWER THAN ETHER

SOLUBILITY IN WATER: N/A **APPEARANCE AND ODOR:** N/A

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 75 Deg F **METHOD USED:** SETAFLASH

FLAMMABLE LIMITS IN AIR BY VOLUME - LOWER: 1.0% **UPPER:** 12.7%

EXTINGUISHING MEDIA: FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES
Keep people away. Do not enter confined fire space without proper protective equipment including NIOSH approved self-contained breathing apparatus. Cool closed containers with water. Avoid spreading burning liquid with water.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS
"Closed containers may explode when exposed to heat. Isolate from heat, sparks and electrical equipment. Application to hot surfaces requires special precautions. Solvent vapors can travel to an ignition source and flash. Mists may be combustible at temperature below normal flash point. During emergency conditions, decomposition of products may cause a xc health hazard."

N/A = Not Applicable Date Printed Tuesday, February 13, 2001

SECTION V - REACTIVITY DATA

Stability: Stable
CONDITIONS TO AVOID: "Oxidizing materials, high temperatures or extreme heat."
INCOMPATIBILITY (MATERIAL TO AVOID): May react with oxidizing materials. Avoid hot surfaces, sparks and open
HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Oxides of carbon, possible low molecular weight hydrocarbons, hydrogen cyanide, toluene diisocyanate or acrolein.
HAZARDOUS POLYMERIZATION: Will not occur

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Excessive inhalation of vapors or sprays can cause nasal and respiratory irritiation, dizziness, incoordination, weakness, fatigue, nausea & headache. High concentration may result in central nervous system depression.
SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Skin: Prolonged or repeated exposure can cause moderate irritation, defatting and dermatitis.
Eyes: Severe irritation, redness, tearing and blurred vision.
SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
"May cause irritation, drying or defatting of the skin."
INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
"Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis
HEALTH HAZARDS (ACUTE AND CHRONIC) INCLUDING TARGET ORGANS::
"Chronic exposure to the hazardous materials contained in this product (see section II) may cause damage to the central nervous
MEDICALCONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Any respiratory or skin condition may be aggravate.
EMERGENCY AND FIRST AID PROCEDURES:
Inhalation: Remove to fresh air. Apply artificial respiration or administer oxygen if necessary. Consult physician. Splash (eyes): Flush immediately with large amounts of water for at least 15 minutes. Take to physician for treatment. Splash (eyes): Flush immediately with large amounts of water for at least 15 minutes. Take to physician for treatment. Splash (skin): Wash with soap and water. Remove contaminated clothing. Consult physician if irritiation persists. Ingestion: Keep person warm, quiet and get immediate medical attention. DO NOT induce vomiting because aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
"Keep unnecessary people away. Clean up spills as soon as possible. Eliminate all sources of ignition. Use non-sparking tools. Ventilate area and wear proper protective equipment. Dike and contain spill with inert material (clay, sand, etc.)."

WASTE DISPOSAL METHOD:
Place in non-leaking containers, seal tightly and label properly for disposal. A fire or health hazard may still exist since absorbent materials will only absorb liquid; they will not absorb vapors or spray mist. Observe all federal, state and local regulations concerning disposal of hazardous waste.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Keep containers closed when not in use. Store and use only in well ventilated areas. Do not store or use near heat, spark open flame or oxidizers. Avoid breathing vapors or spray mist. Avoid eye or skin contact. Wash thoroughly after handling. Never transfer material to an unlabeled container.

OTHER PRECAUTIONS:
Read and observe precautions on product label and this sheet. Keep out of reach of children. Empty containers may be hazardous from residues of product and vapor and all caution of this sheet apply to them.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION:
Use self-contained breathing apparatus where vapor concentration may be above Threshold Limit Value (TLV) or for spray application. Below the TLV limits, use a NIOSH-approved vapor respirator or an air line respirator with escape bottle provisions. If exposure data is lacking, assume TLV is exceeded.
Ventilation:
Local exhaust must be sufficient to keep airborne vapor concentrations below TLV limit. Provide adequate ventilation (with explosion proof equipment) to maintain exposure below TLV.
PROTECTIVE GLOVES: Use solvent resistant gloves to prevent contact.
EYE PROTECTION: "Safety eyewear including splash guards, chemical goggles or face shields recommended (required for spray
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Remove contaminated clothing and allow solvent to evaporate before re-use.
WORK / HYGIENIC PRACTICES: "Wash hands after handling material and before eating, drinking, smoking or using the washroom."

SECTION IX - DISCLAIMER

The information contained in this Material Safety Data Sheet is based on the data available to us and is believed to be correct. However, we assume no responsibility for any inaccuracies that may subsequently be proven. Purchaser assumes all risk in his use of the material even when recommended saftey procedures are followed.

N/A = Not Applicable Date Printed Tuesday, February 13, 2001

Extend Rust Treatment
75430

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Extend Rust Treatment
Item No.: 75430
Product Type: Acid-Modified Emulsion

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
Water	7732-18-5	45-50
Vinylidene-acrylic copolymer	Proprietary	35-40
Barium sulfate	7727-43-7	5-10
2-BUTOXYETHANOL*	111-76-2	1-3
Organic acid	Proprietary	1-3
Propylene glycol	57-55-6	1-3
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	112945-52-5	1-3

* This component is listed as a SARA Section 313 Toxic Chemical.

Ingredients which have exposure limits

Exposure Limits (TWA) Ingredients	ACGIH (TLV)	OSHA (PEL)	OTHER
Barium sulfate	10 mg/m3 dust	10 mg/m3 dust 5 mg/m3 respir.	None
2-BUTOXYETHANOL	20 ppm	50 ppm TWA skin 120mg/m3 skin	None
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	10 mg/m3 TWA	6 mg/m3 TWA	3 mg/m3 TWA resp. dust

Exposure Limits (STEL) Ingredients	ACGIH (TLV)	OSHA (PEL)

3. HAZARDS IDENTIFICATION

Toxicity: May irritate eyes and skin. High vapor concentration may irritate respiratory tract. May cause gastric disturbances if swallowed. Exposure to butoxyethanol can cause nausea, dizziness, vomiting, malaise, incoordination, diarrhea, weakness, eye redness, and swelling of the conjunctiva. The organic acid can irritate the nose and throat upon inhalation. The low

Product Name: Extend Rust Treatment
Item No.: 75430

3. HAZARDS IDENTIFICATION (continued)

concentration of these components minimizes the probability that these symptoms may occur.

Primary Routes of Entry: None known

Signs and Symptoms of Exposure: Irritation of eyes and skin. Skin may be stained contact.

Existing Conditions Aggravated by Exposure: Butoxyethanol: dermatitis

Ingredients	Literature Referenced Target Organ and Other Health Effects	Carcinogen NTP	IARC	OSHA
Water	NTO	NO	NO	NO
Vinylidene-acrylic copolymer	No Data	NO	NO	NO
Barium sulfate	LUN	NO	NO	NO
2-BUTOXYETHANOL	AC3 BLO CNS IRR KID LIV	NO	NO	NO
Organic acid	BLO COR IRR KID LIV	NO	N/A	NO
Propylene glycol	IRR	NO	NO	NO
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	NUI	NO	N/A	NO

Abbreviations

N/A Not Applicable
BLO Blood
COR Corrosive
KID Kidney
LUN Lung
NUI Nuisance dust
AC3 ACGIH animal carcinogen.
CNS Central nervous system
IRR Irritant
LIV Liver
NTO No Target Organs

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Keep individual calm. Obtain medical attention.

Inhalation: Remove to fresh air. If symptoms persist seek medical attention

Skin Contact: Flush with water at once to avoid staining skin; then wash with soap and water.

Eye Contact: Flush at least 15 minutes with water. Obtain medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: None - aqueous medium Method: Tag Closed Cup

Recommended Extinguishing Agents: Carbon dioxide, foam, dry chemical

Product Name: Extend Rust Treatment
Item No.: 75430

5. FIRE FIGHTING MEASURES (continued)

Special Firefighting Procedures:	Not available
Hazardous Products formed by Fire or Thermal Decomp	Irritating organic vapors, oxides of carbon, toxic gases such as hydrogen chloride
Unusual Fire or Explosion Hazards:	None
Explosive Limits:	
(% by volume in air)Lower	Butoxyethanol: 1.1%
(% by volume in air)Upper	Butoxyethanol: 10.6%

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak:	Clean up with detergent and water.

7. HANDLING AND STORAGE

Safe Storage:	Store between 40-105°F
(Contact Loctite Customer	Service 1-800-243-4874 for shelf life information)
Handling:	Avoid skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes:	Safety glasses or goggles.
Skin:	Impermeable rubber or plastic gloves.
Ventilation:	Normal ventilation is adequate for occasional use. For continuous or spray application, provide local exhaust ventilation.
Respiratory	Not available
	See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Milky liquid
Odor:	Mild
Boiling Point:	Approximately 212°F
pH:	1.95
Solubility in Water:	Water-based
Specific Gravity	1.202
Volatile Organic Compound (EPA Method 24)	110 grams of VOC per liter of coating
Vapor Pressure:	Approximately 24 mm
Vapor Density:	1.2
Evaporation Rate (Ether = 1)	Not available

Product Name: Extend Rust Treatment
Item No.: 75430

10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: Strong bases will coagulate resin; strong oxidizers.
Conditions to Avoid: Not available
Hazardous Decomposition Products (non-thermal): None

11. TOXICOLOGICAL INFORMATION

Estimated oral LD50 more than 5000 mg/kg.
Estiamted dermal LD50 more than 2000 mg/kg.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal: Incinerate following EPA and local regulations.
EPA Hazardous Waste Number D002 - Hazardous waste per 40CFR 261.22

14. TRANSPORTATION INFORMATION

DOT (49 CFR 172)
Domestic Ground Transport
Proper Shipping Name: Unrestricted
Hazard Class or Division: Unrestricted
Identification Number: None
Marine Pollutant: None
IATA
Proper Shipping Name: Unrestricted
Class or Division: Unrestricted
UN or ID Number: None

15. REGULATORY INFORMATION

CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Ethylene oxide, 2,ethoxy-ethanol

Product Name: Extend Rust Treatment
Item No.: 75430

16. OTHER INFORMATION

Estimated NFPA(R) Code:
- Health Hazard: 1
- Fire Hazard: 1
- Reactivity Hazard: 0
- Specific Hazard: Does not apply

Estimated HMIS(R) Code:
- Health Hazard: 1*
- Flammability Hazard: 1
- Reactivity Hazards: 0
- Personal Protection: See Section 8.

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Kyra Kozak Woods
Title: Health and Regulatory Affairs Specialist
Company: Henkel Loctite Corporation, Rocky Hill CT 06067
(24hr.) Phone: (860) 571-5100
Revision Date: October 21, 2004 Revision: 0006

MATERIAL SAFETY DATA SHEET

HY-PER LUBE CORPORATION
14818 N.E. 31ST CIRCLE
REDMOND, WA 98104

PRODUCT CODE NO: HPL-201, 205, 255; HTT-200, HSF-220

MANUFACTURER: HY-PER LUBE CORPORATION
14818 N.E. 31ST CIRCLE
REDMOND, WA 98104
(425) 558-3700

FOR PRODUCT EMERGENCY CONTACT:
CHEM-TEL (800) 255-3924

PRODUCT IDENTIFICATION

PRODUCT NAME	: Hilton Hy-Per-Lube
SYNONYMS	: Hilton Hy-Per-Lube
GENERIC NAME	: Industrial Oil
CHEMICAL FAMILY	: Petroleum Hydrocarbon
DOT PROPER SHIPPING NAME	: Not Applicable
ID NUMBER	: None

SECTION I INGREDIENTS	TVL	UNITS	AGENCY	TYPE
OIL MIST, IF GENERATED	5.00	MG/M3	OSHA	FULL TERM TWA

The identities of ingredients that are trade secrets are excluded from this list.

SECTION II - EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:
For direct contact, flush the affected eye(s) with clean water. If irritation or redness develops, seek medical attention.

SKIN CONTACT:
Do not use gasoline's, thinners or solvents to remove product from skin. Wipe material from skin and remove contaminated clothing. Cleanse affected area(s) thoroughly by washing with soap and water and, if necessary, a waterless skin cleanser. If irritation or redness develops and persists, seek medical attention.

INHALATION (BREATHING):
If irritation of nose or throat develops, move away from source of exposure and into fresh air. If irritation persists, seek medical attention. If victim is not breathing or if breathing difficulties develop, artificial respiration or oxygen should be administered by qualified personnel. Seek immediate medical attention.

INGESTION (SWALLOWING):
If victim is conscious and alert, give 2 to 3 cups of milk or water to drink. Seek medical attention. To physician: Emesis or Lavage is not recommended for ingestion's of minute quantities or tastes of most hydrocarbons. Medical opinion is divided for larger ingestion's. Emesis or Lavage has been recommended for those petroleum products which have a high oral toxicity. Gastric Lavage with a cuffed endotracheal tube is recommended by some physicians to prevent aspiration.

SECTION III - POTENTIAL ADVERSE HEALTH EFFECTS

EYE CONTACT:
This material may cause eye irritation. Direct contact may cause burning, tearing, and redness.

SKIN CONTACT:
This material may cause skin irritation. Prolonged or repeated contact may cause redness, burning or dermatitis.

INHALATION (BREATHING):
Exposure to mists, or prolonged or repeated exposure to fumes or vapors that may be generated when this material is heated, may cause irritation of nose and throat.

INGESTION (SWALLOWING):
Accidental ingestion of this material may cause irritation of the digestive tract.

COMMENTS:
Used motor oil: Following repeated skin applications, animal studies have shown that used motor/crankcase oils have caused an increased incidence of skin cancer in mice. It is therefore recommended that prolonged or repeated contact with motor crankcase oils be avoided.

SECTION IV - SPECIAL PROTECTION INFORMATION

VENTILATION:
If current ventilation practices are not adequate in maintaining airborne concentrations below the established exposure limits (see section I), additional ventilation or exhaust systems may be required.

RESPIRATORY PROTECTION:
If airborne concentrations exceed recommended exposure limits, a suitable filter-type respirator should be worn. (see section I)

PROTECTIVE GLOVES:
The use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation.

EYE PROTECTION:
Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.

OTHER PROTECTIVE EQUIPMENT:
It is suggested that a source of clean water be available in work area for flushing eyes and skin. Barrier creams that are specific for oil-based materials are recommended when gloves are impractical.

SECTION V - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY (MATERIALS TO AVOID):
Avoid contact with strong oxidizing agents. Extended exposure to high temperatures may cause decomposition.

HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition in the presence of air may yield major amounts of oxides of carbon and minor amounts of oxides of nitrogen, phosphorus, sulfur and zinc.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI ENVIRONMENTAL PROTECTION

ENVIRONMENTAL IMPACT:
This material is not expected to present any environmental problems other than those associated with oil spills.

PRECAUTIONS IF MATERIAL IS RELEASED OR SPILLED:
Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. When feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

WASTE DISPOSAL METHODS:
Place contaminated materials in disposable containers and dispose of in a manner consistent with environmental or health authorities for approved disposal of this material.

SECTION VII STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:
Store in a cool, dry location. Keep away from incompatible materials (see section V). Avoid generating oil mists while handling. Avoid prolonged or repeated skin contact. Wash thoroughly after handling. For used motor oil: launder saturated clothing before wearing and discard oil-soaked shoes and unwashable clothing.

SECTION VIII FIRE PRECAUTION

FLASH POINT (OPEN CUP):	360° F
FIRE POINT (OPEN CUP):	405° F
FLAMMABILITY LIMITS:	N/A
EXTINGUISHING MEDIA:	CO2, Dry Chemical, Foam, Water Fog.

SPECIAL FIRE FIGHTING PROCEDURES:
For fires involving this material, do not enter any enclosed or confined fire spaces without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire MSDS.

SECTION IX PHYSICAL DATA

APPROX. BOILING POINT	: Above 600° F	POUR POINT: 0°F
VAPOR DENSITY	: Heavier than air.	
EVAPORATION RATE	: Slower than ether	
% VOLATILE	: Negligible	
% SOLUBILITY	: Negligible	
SPECIFIC GRAVITY	: 0.85-0.92	
API GRAVITY (60° F)	: 28.1	
KINEMATIC VIS @ 100° C	: 120 - 130 cSt	
APPEARANCE	: Clear golden liquid	
ODOR	: Characteristic	

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OR THE HAZARDS RELATED TO ITS USE.
This information and product are furnished on the condition that the person receiving them shall make his or her own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof.

MATERIAL SAFETY DATA SHEET

Sales Order: {SalesOrd}

INTERLAC 665 WHITE

MSDS Revision No: P3 –30
MSDS Revision Date: 10/21/2005

International Paint LLC

6001 Antoine Drive

Houston, Texas 77091

EMERGENCY NUMBERS:

(800) 424–9300	CHEMTREC (USA)
(703) 527–3887	CHEMTREC (Intl)
(800) 854–6813	Poison Control Center
CUSTOMER SERVICE:	(Non–Emergency)
(800) 589–1267	International Paint
(800) 631–7481	Interlux

1. GENERAL INFORMATION

Product Identity: INTERLAC 665 WHITE

Bulk Sales Reference No: CLB000

IMPORTANT: Read this MSDS before handling or disposing of this product, and provide this information to the employee, customers, and users of this product. PLEASE NOTE THE MSDS REVISION NUMBER AT THE TOP OF THIS PAGE. If the MSDS Revision Number posted at the top of this page does not match the MSDS Revision Number on the product label, please contact Customer Service at the phone number included above for the correct MSDS. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard.

NOTICE: OSHA hazardous chemicals are listed in Section 2 if present at 1% or more. Carcinogens and extraordinarily/special hazardous chemicals are listed in Section 2 if present at .1% or more. Additional regulatory information for specific chemical categories is included in Section 15.

2. HAZARDOUS INGREDIENT INFORMATION

CAS No.	Ingredient Name & %	Source	Exposure Data
001343–98–2	Silicic acid 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
008052–41–3	Stoddard solvent 10 – 25% by Weight	OSHA:	500 ppm TWA; 2900 mg/m3 TWA
		ACGIH:	100 ppm TWA
		NIOSH:	350 mg/m3 TWA1800 mg/m3 Ceiling (15 minute)20000 mg/m3 IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	525 mg/m3 TWAEV (140 Degree C Flash Aliphatic Solvent)
		Mexico:	100 ppm TWA; 523 mg/m3 TWA200 ppm STEL; 1050 mg/m3 STEL
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Eye nose
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

Confidential Business Information

CAS No.	Ingredient Name & %	Source	Exposure Data
013463–67–7	Titanium dioxide 10 – 25% by Weight	OSHA:	15 mg/m3 TWA (total dust)
		ACGIH:	10 mg/m3 TWA
		NIOSH:	5000 mg/m3 IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	10 mg/m3 TWAEV (total dust)
		Mexico:	10 mg/m3 TWA (nuisance particulate)20 mg/m3 STEL
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Lung tumors in animals
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: Yes; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
027253–31–2	Cobalt neodecanoate 0.10 – 1.0% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: Yes; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
064742–47–8	Petroleum distillates, hydrotreated light 10 – 25% by Weight	OSHA:	No Established Limit
		ACGIH:	200 mg/m3 TWA (application restricted to conditions in which there are negligible aerosol expos
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

3. HAZARD IDENTIFICATION

Overview:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing.
Inhalation:	May be harmful or fatal if inhaled. May cause lung injury. Causes nose and throat irritation. Vapors may affect the brain

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	or nervous system causing dizziness, headache or nausea.
Eyes:	Causes severe eye irritation. Do not get in eyes.
Skin:	Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion:	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.
Chronic Effects:	Contains an ingredient which can cause organ damage (See Section 2 and Section 15 for each ingredient). Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 2 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
HMIS Rating:	Health: 2 Flammability: 2 Reactivity: 0

4. FIRST AID MEASURES

General:	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion:	If swallowed, immediately contact Poison Control Center at 1–800–854–6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory:	Select equipment to provide protection from the ingredients listed in Section 2 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1–800–243–4630, in Canada call 1–800–267–4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.
Eyes:	Do not get in eyes. Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, safety glasses, chemical goggles, and/or head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Skin/Hand:	Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Engineering Controls:	Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation.
Other Work Practices:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

6. FIRE AND EXPLOSION INFORMATION

Flash Point:	F: 106 C: 41
Lower Explosive Limit (LEL):	1 (%vol in air) at Normal Atmospheric Temp and Pressure
Fire and Explosion Hazards:	Combustible liquid and vapor. FLAMMABLE/COMBUSTIBLE MATERIALS: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) creating a vapor explosion hazard. Runoff to sewers may create fire or explosion hazard. Containers may explode when heated.
Fire Fighting Procedures:	CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO_2, water spray or alcohol–resistant foam. LARGE FIRES: Use water spray, fog, or alcohol–resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material. Also Reference Emergency Response Guide Number: 127

Confidential Business Information

7. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	No Established Limit
Specific Gravity:	1.119354
Boiling Point (F):	210
Vapor Density:	Heavier than air
VOC Content (lbs):	Refer to the Technical Data Sheet for this product.
Evaporation Rate:	Slower than ether

8. STABILITY AND REACTIVITY DATA

General:	This product is stable and hazardous polymerization will not occur.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decompostion:	May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Carbon Dioxide and Carbon Monoxide.

9. HANDLING AND STORAGE

Storage Temperature:	Store between 32 and 120 F
Handling and Storage Precautions:	Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Vapors may cause flash fire or ignite explosively. Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation. Do not get in eyes, on skin or clothing. Close container after each use. Wash thoroughly after handling.

10. TOXICOLOGICAL DATA

General:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. No additional information provided for this product. See Section 2 for chemical specific data.

11. ECOLOGICAL DATA

General:	No additional information provided for this product. See Section 2 for chemical specific data.

12. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures:	ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non–sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non–combustible material and transfer to containers. Use non–sparking tools to collect absorbed material.
Public Safety:	CALL CHEMTREC at (800)–424–9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet). Also, Reference Emergency Response Guide Number: 127

13. DISPOSAL CONSIDERATION

Waste Disposal:	Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

Confidential Business Information

14. TRANSPORTATION INFORMATION

DOT (Domestic Surface Transportation)		IMO / IMDG (Ocean Transportation)	
DOT Proper Shipping Name: PAINT		IMDG Proper Shipping Name: PAINT	
DOT Hazard Class:	3	IMDG Hazard Class:	3.3 – High flashpoint flammable liquids
UN / NA Number:	UN 1263	UN Number:	UN 1263
DOT Packing Group:	III	IMDG Packing Group:	III
CERCLA/DOT RQ:	6206 gal. / 57870 lbs.	System Reference Code: 1	

15. REGULATORY INFORMATION

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all–inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory. **Note:** Any chemical ingredients listed in Section 15, that do not also appear in Section 2, are contained in the product at a concentration below the applicable OSHA threshold level of 1% or 0.1%.
WHMIS Classification:	No Established Limit
Regulatory List	Product Ingredients on List
DOT Marine Pollutants (10%):	
(No Product Ingredients Listed)	
DOT Severe Marine Pollutants (1%):	
(No Product Ingredients Listed)	
EPCRA 311/312 Chemicals and RQs (>.1%) :	
001330–20–7	Xylenes (o–, m–, p– isomers) : 100 lb final RQ; 45.4 kg final RQ
EPCRA 302 Extremely Hazardous (>.1%) :	
(No Product Ingredients Listed)	
EPCRA 313 Toxic Chemicals (>.1%) :	
027253–31–2	Cobalt neodecanoate
000095–63–6	Pseudocumene
001330–20–7	Xylenes (o–, m–, p– isomers)
Mass RTK Substances (>1%) :	
008052–41–3	Stoddard solvent
013463–67–7	Titanium dioxide
Mass Extraordinarily Haz Sub (>.01%) :	
014808–60–7	Quartz
014464–46–1	Silica, cristobalite
Penn RTK Substances (>1%) :	
008052–41–3	Stoddard solvent
013463–67–7	Titanium dioxide
Penn Special Hazardous Substances (>.01%) :	
(No Product Ingredients Listed)	
Rhode Island Hazardous Substances (>.1%) :	
008052–41–3	Stoddard solvent
013463–67–7	Titanium dioxide
001330–20–7	Xylenes (o–, m–, p– isomers)
RCRA Status (>.01%) :	
(No Product Ingredients Listed)	
N.J. RTK Substances (>1%) :	

Confidential Business Information

008052–41–3	Stoddard solvent
013463–67–7	Titanium dioxide
N.J. Special Hazardous Substances (>.01%) :	
(No Product Ingredients Listed)	
000100–41–4	Ethyl benzene
000078–83–1	Isobutyl alcohol
000107–98–2	Propylene glycol monomethyl ether
001330–20–7	Xylenes (o–, m–, p– isomers)
N.J. Env. Hazardous Substances (>.1%) :	
027253–31–2	Cobalt neodecanoate
000095–63–6	Pseudocumene
001330–20–7	Xylenes (o–, m–, p– isomers)
Proposition 65 – Carcinogens (>0%):	
014808–60–7	Quartz
014464–46–1	Silica, cristobalite
Proposition 65 – Female Repro Toxins (>0%):	
(No Product Ingredients Listed)	
Proposition 65 – Male Repro Toxins (>0%):	
(No Product Ingredients Listed)	
Proposition 65 – Developmental Toxins (>0%):	
(No Product Ingredients Listed)	

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

End Of Document

Confidential Business Information

MATERIAL SAFETY DATA SHEET

Sales Order: {SalesOrd}

INTERLAC 665FD ULTRA DEEP BASE

MSDS Revision No: B0 –
MSDS Revision Date: 01/19/2006

International Paint LLC

6001 Antoine Drive

Houston, Texas 77091

EMERGENCY NUMBERS:

(800) 424–9300	CHEMTREC (USA)
(703) 527–3887	CHEMTREC (Intl)
(800) 854–6813	Poison Control Center
CUSTOMER SERVICE:	(Non–Emergency)
(800) 589–1267	International Paint
(800) 631–7481	Interlux

1. GENERAL INFORMATION

Product Identity: INTERLAC 665FD ULTRA DEEP BASE

Bulk Sales Reference No: 66544

IMPORTANT: Read this MSDS before handling or disposing of this product, and provide this information to the employee, customers, and users of this product. PLEASE NOTE THE MSDS REVISION NUMBER AT THE TOP OF THIS PAGE. If the MSDS Revision Number posted at the top of this page does not match the MSDS Revision Number on the product label, please contact Customer Service at the phone number included above for the correct MSDS. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard.

NOTICE: OSHA hazardous chemicals are listed in Section 2 if present at 1% or more. Carcinogens and extraordinarily/special hazardous chemicals are listed in Section 2 if present at .1% or more. Additional regulatory information for specific chemical categories is included in Section 15.

2. HAZARDOUS INGREDIENT INFORMATION

CAS No.	Ingredient Name & %	Source	Exposure Data
000100–41–4	Ethyl benzene 10 – 25% by Weight	OSHA:	100 ppm TWA; 435 mg/m3 TWA125 ppm STEL; 545 mg/m3 STEL
		ACGIH:	100 ppm TWA125 ppm STEL
		NIOSH:	100 ppm TWA; 435 mg/m3 TWA125 ppm STEL; 545 mg/m3 STEL800 ppm IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	100 ppm TWAEV; 435 mg/m3 TWAEV125 ppm STEV; 540 mg/m3 STEV
		Mexico:	100 ppm TWA; 435 mg/m3 TWA125 ppm STEL; 545 mg/m3 STEL
		Brazil:	78 ppm TWA; 340 mg/m3 TWA
		Source	Health Data
		NIOSH:	Eye skin
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: Yes; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
001330–20–7	Xylenes (o–, m–, p– isomers) 25 – 50% by Weight	OSHA:	100 ppm TWA; 435 mg/m3 TWA150 ppm STEL; 655 mg/m3 STEL
		ACGIH:	100 ppm TWA150 ppm STEL
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	100 ppm TWAEV; 435 mg/m3 TWAEV150 ppm STEV; 650 mg/m3 STEV
		Mexico:	100 ppm TWA; 435 mg/m3 TWA150 ppm STEL; 655 mg/m3 STEL
		Brazil:	78 ppm TWA; 340 mg/m3 TWA
		Source	Health Data
		NIOSH:	Central nervous system depressant; respiratory and eye irritation
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No

Confidential Business Information

NTP:	Known Carcinogen: No; Suspected Carcinogen: No
IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: Yes; Group 4: No

3. HAZARD IDENTIFICATION

Overview:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing.
Inhalation:	Harmful if inhaled. Causes nose and throat irritation. Vapors may affect the brain or nervous system causing dizziness, headache or nausea.
Eyes:	Causes severe eye irritation. Do not get in eyes.
Skin:	Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion:	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.
Chronic Effects:	Contains an ingredient which can cause organ damage (See Section 2 and Section 15 for each ingredient). Birth defect hazard. Contains an ingredient which can cause birth defects (See Section 2 and Section 15 for each ingredient).
HMIS Rating:	Health: 2* Flammability: 3 Reactivity: 0

4. FIRST AID MEASURES

General:	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion:	If swallowed, immediately contact Poison Control Center at 1–800–854–6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory:	Select equipment to provide protection from the ingredients listed in Section 2 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1–800–243–4630, in Canada call 1–800–267–4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.
Eyes:	Do not get in eyes. Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, safety glasses, chemical goggles, and/or head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Skin/Hand:	Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Engineering Controls:	Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation.
Other Work Practices:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

6. FIRE AND EXPLOSION INFORMATION

Flash Point:	F: 79 C: 26
Lower Explosive Limit (LEL):	1 (%vol in air) at Normal Atmospheric Temp and Pressure
Fire and Explosion Hazards:	Flammable liquid and vapor. FLAMMABLE/COMBUSTIBLE MATERIALS: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and

Confidential Business Information

	flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) creating a vapor explosion hazard. Runoff to sewers may create fire or explosion hazard. Containers may explode when heated.
Fire Fighting Procedures:	CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO_2, water spray or alcohol–resistant foam. LARGE FIRES: Use water spray, fog, or alcohol–resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material. Also Reference Emergency Response Guide Number: 127

7. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	No Established Limit
Specific Gravity:	0.964886
Boiling Point (F):	277
Vapor Density:	Heavier than air
VOC Content (lbs):	Refer to the Technical Data Sheet for this product.
Evaporation Rate:	Slower than ether

8. STABILITY AND REACTIVITY DATA

General:	This product is stable and hazardous polymerization will not occur.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decompostion:	May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Carbon Dioxide and Carbon Monoxide.

9. HANDLING AND STORAGE

Storage Temperature:	Store at a minimum of 77°F (25°C).
Handling and Storage Precautions:	Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Vapors may cause flash fire or ignite explosively. Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation. Do not get in eyes, on skin or clothing. Close container after each use. Wash thoroughly after handling.

10. TOXICOLOGICAL DATA

General:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. No additional information provided for this product. See Section 2 for chemical specific data.

11. ECOLOGICAL DATA

General:	No additional information provided for this product. See Section 2 for chemical specific data.

12. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures:	ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non–sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non–combustible material and transfer to containers. Use non–sparking tools to collect absorbed material.
Public Safety:	CALL CHEMTREC at (800)–424–9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of

Confidential Business Information

low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet).
Also, Reference Emergency Response Guide Number: 127

13. DISPOSAL CONSIDERATION

Waste Disposal:	Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

14. TRANSPORTATION INFORMATION

DOT (Domestic Surface Transportation)		IMO / IMDG (Ocean Transportation)	
DOT Proper Shipping Name: PAINT		IMDG Proper Shipping Name: PAINT	
DOT Hazard Class:	3	IMDG Hazard Class:	3.3 – High flashpoint flammable liquids
UN / NA Number:	UN 1263	UN Number:	UN 1263
DOT Packing Group:	III	IMDG Packing Group:	III
CERCLA/DOT RQ:	27 gal. / 213 lbs.	System Reference Code: 1	

15. REGULATORY INFORMATION

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all–inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory. **Note:** Any chemical ingredients listed in Section 15, that do not also appear in Section 2, are contained in the product at a concentration below the applicable OSHA threshold level of 1% or 0.1%.
WHMIS Classification:	B2:D2B
Regulatory List	Product Ingredients on List
DOT Marine Pollutants (10%):	
(No Product Ingredients Listed)	
DOT Severe Marine Pollutants (1%):	
(No Product Ingredients Listed)	
EPCRA 311/312 Chemicals and RQs (>.1%) :	
000100–41–4	Ethyl benzene : 1000 lb final RQ; 454 kg final RQ
001330–20–7	Xylenes (o–, m–, p– isomers) : 100 lb final RQ; 45.4 kg final RQ
EPCRA 302 Extremely Hazardous (>.1%) :	
(No Product Ingredients Listed)	
EPCRA 313 Toxic Chemicals (>.1%) :	
000100–41–4	Ethyl benzene
000107–98–2	Propylene glycol monomethyl ether
001330–20–7	Xylenes (o–, m–, p– isomers)
Mass RTK Substances (>1%) :	
000100–41–4	Ethyl benzene
001330–20–7	Xylenes (o–, m–, p– isomers)
Mass Extraordinarily Haz Sub (>.01%) :	
014808–60–7	Quartz
014464–46–1	Silica, cristobalite
Penn RTK Substances (>1%) :	
000100–41–4	Ethyl benzene
001330–20–7	Xylenes (o–, m–, p– isomers)
Penn Special Hazardous	

Confidential Business Information

Substances (>.01%) :
(No Product Ingredients Listed)
Rhode Island Hazardous Substances (>.1%) :

000100–41–4	Ethyl benzene
000107–98–2	Propylene glycol monomethyl ether
008052–41–3	Stoddard solvent
001330–20–7	Xylenes (o–, m–, p– isomers)

RCRA Status (>.01%) :
(No Product Ingredients Listed)
N.J. RTK Substances (>1%) :

000100–41–4	Ethyl benzene
001330–20–7	Xylenes (o–, m–, p– isomers)

N.J. Special Hazardous Substances (>.01%) :

000100–41–4	Ethyl benzene
000107–98–2	Propylene glycol monomethyl ether
001330–20–7	Xylenes (o–, m–, p– isomers)

N.J. Env. Hazardous Substances (>.1%) :

000100–41–4	Ethyl benzene
000107–98–2	Propylene glycol monomethyl ether
001330–20–7	Xylenes (o–, m–, p– isomers)

Proposition 65 – Carcinogens (>0%):

014808–60–7	Quartz
014464–46–1	Silica, cristobalite

Proposition 65 – Female Repro Toxins (>0%):
(No Product Ingredients Listed)
Proposition 65 – Male Repro Toxins (>0%):
(No Product Ingredients Listed)
Proposition 65 – Developmental Toxins (>0%):
(No Product Ingredients Listed)

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

End Of Document

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MATERIAL SAFETY DATA SHEET

Sales Order: {SalesOrd}

INTERTUF 262 BLACK BASE

MSDS Revision No: N9 –17
MSDS Revision Date: 02/17/2006

International Paint LLC

6001 Antoine Drive

Houston, Texas 77091

EMERGENCY NUMBERS:

(800) 424–9300	CHEMTREC (USA)
(703) 527–3887	CHEMTREC (Intl)
(800) 854–6813	Poison Control Center
CUSTOMER SERVICE:	(Non–Emergency)
(800) 589–1267	International Paint
(800) 631–7481	Interlux

1. GENERAL INFORMATION

Product Identity: INTERTUF 262 BLACK BASE

Bulk Sales Reference No: KHA304

IMPORTANT: Read this MSDS before handling or disposing of this product, and provide this information to the employee, customers, and users of this product. PLEASE NOTE THE MSDS REVISION NUMBER AT THE TOP OF THIS PAGE. If the MSDS Revision Number posted at the top of this page does not match the MSDS Revision Number on the product label, please contact Customer Service at the phone number included above for the correct MSDS. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard.

NOTICE: OSHA hazardous chemicals are listed in Section 2 if present at 1% or more. Carcinogens and extraordinarily/special hazardous chemicals are listed in Section 2 if present at .1% or more. Additional regulatory information for specific chemical categories is included in Section 15.

2. HAZARDOUS INGREDIENT INFORMATION

CAS No.	Ingredient Name & %	Source	Exposure Data
000071–36–3	n–Butyl alcohol 1.0 – 10% by Weight	OSHA:	100 ppm TWA; 300 mg/m3 TWA50 ppm Ceiling; 150 mg/m3 Ceiling
		ACGIH:	20 ppm TWA
		NIOSH:	50 ppm Ceiling; 150 mg/m3 Ceiling1400 ppm IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	50 ppm CEV; 150 mg/m3 CEV
		Mexico:	50 ppm STEL; 150 mg/m3 STEL
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Eye and mucous membrane irritation CNS depression
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
000095–63–6	Pseudocumene 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	25 ppm TWA; 125 mg/m3 TWA
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

Confidential Business Information

CAS No.	Ingredient Name & %	Source	Exposure Data
000108–67–8	TRIMETHYLBENZENE 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	25 ppm TWA; 125 mg/m3 TWA
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
000110–43–0	Methyl n–amyl ketone 1.0 – 10% by Weight	OSHA:	100 ppm TWA; 465 mg/m3 TWA
		ACGIH:	50 ppm TWA
		NIOSH:	100 ppm TWA; 465 mg/m3 TWA800 ppm IDLH
		Supplier:	No Established Limit
		OHSA, CAN:	25 ppm TWAEV; 115 mg/m3 TWAEV
		Mexico:	50 ppm TWA; 235 mg/m3 TWA100 ppm STEL; 465 mg/m3 STEL
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Irritation; liver kidney
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
007727–43–7	Barium sulfate 1.0 – 10% by Weight	OSHA:	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
		ACGIH:	10 mg/m3 TWA
		NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)50 mg/m3 IDLH (as Ba, except barium sulfate)
		Supplier:	No Established Limit
		OHSA, CAN:	10 mg/m3 TWAEV (total dust)
		Mexico:	0.5 mg/m3 TWA
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	Eye nose
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
025036–25–3	Polymer of epoxy resin and bisphenol A 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit

Confidential Business Information

	Mexico:	No Established Limit
	Brazil:	No Established Limit
	Source	Health Data
	NIOSH:	No Established Limit
	Source	Carcinogen Data
	OSHA:	Select Carcinogen: No
	NTP:	Known Carcinogen: No; Suspected Carcinogen: No
	IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
025085–99–8	OXIRANE, 2,2'–4–BUTYLIDENEBISPHENYLENEOXYMETHYLENE 10 – 25% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
064742–95–6	Petroleum naphtha, light aromatic 1.0 – 10% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data
14807–96–6*	Talc (*non–asbestiform) 10 – 25% by Weight	OSHA:	No Established Limit
		ACGIH:	No Established Limit
		NIOSH:	No Established Limit
		Supplier:	No Established Limit
		OHSA, CAN:	No Established Limit
		Mexico:	No Established Limit
		Brazil:	No Established Limit
		Source	Health Data
		NIOSH:	No Established Limit
		Source	Carcinogen Data
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No

Confidential Business Information

IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

3. HAZARD IDENTIFICATION

Overview:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing. Contains 1,2,4–Trimethylbenzene which can cause central nervous system depression, anemia and bronchitis.
Inhalation:	May be harmful or fatal if inhaled. Causes nose and throat irritation. Vapors may affect the brain or nervous system causing dizziness, headache or nausea.
Eyes:	Causes severe eye irritation. Do not get in eyes.
Skin:	Causes skin irritation. May cause allergic skin reaction. May be harmful if absorbed through the skin.
Ingestion:	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.
Chronic Effects:	Contains an ingredient which can cause organ damage (See Section 2 and Section 15 for each ingredient). Cancer hazard. Contains an ingredient which can cause cancer (See Section 2 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
HMIS Rating:	Health: 2 Flammability: 2 Reactivity: 0

4. FIRST AID MEASURES

General:	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion:	If swallowed, immediately contact Poison Control Center at 1–800–854–6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory:	Select equipment to provide protection from the ingredients listed in Section 2 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1–800–243–4630, in Canada call 1–800–267–4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.
Eyes:	Do not get in eyes. Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, safety glasses, chemical goggles, and/or head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Skin/Hand:	Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site–specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Engineering Controls:	Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation.
Other Work Practices:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

6. FIRE AND EXPLOSION INFORMATION

Flash Point:	F: 110 C: 43
Lower Explosive Limit (LEL):	1 (%vol in air) at Normal Atmospheric Temp and Pressure
Fire and Explosion Hazards:	

Confidential Business Information

	Combustible liquid and vapor. FLAMMABLE/COMBUSTIBLE MATERIALS: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) creating a vapor explosion hazard. Runoff to sewers may create fire or explosion hazard. Containers may explode when heated.
Fire Fighting Procedures:	CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO_2, water spray or alcohol–resistant foam. LARGE FIRES: Use water spray, fog, or alcohol–resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material. Also Reference Emergency Response Guide Number: 127

7. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	No Established Limit
Specific Gravity:	1.500771
Boiling Point (F):	243
Vapor Density:	Heavier than air
VOC Content (lbs):	Refer to the Technical Data Sheet for this product.
Evaporation Rate:	Slower than ether

8. STABILITY AND REACTIVITY DATA

General:	This product is stable and hazardous polymerization will not occur.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decompostion:	May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Carbon Dioxide and Carbon Monoxide.

9. HANDLING AND STORAGE

Storage Temperature:	Store between 40–100°F (4–38°C).
Handling and Storage Precautions:	Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Vapors may cause flash fire or ignite explosively. Prevent build–up of vapors by opening all windows and doors to achieve cross–ventilation. Do not get in eyes, on skin or clothing. Close container after each use. Wash thoroughly after handling.

10. TOXICOLOGICAL DATA

General:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. No additional information provided for this product. See Section 2 for chemical specific data.

11. ECOLOGICAL DATA

General:	No additional information provided for this product. See Section 2 for chemical specific data.

12. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures:	ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non–sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non–combustible material and transfer to containers. Use non–sparking tools to collect absorbed material.

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Public Safety:	CALL CHEMTREC at (800)–424–9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet). Also, Reference Emergency Response Guide Number: 127

13. DISPOSAL CONSIDERATION

Waste Disposal:	Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

14. TRANSPORTATION INFORMATION

DOT (Domestic Surface Transportation)		IMO / IMDG (Ocean Transportation)	
DOT Proper Shipping Name: PAINT		IMDG Proper Shipping Name: PAINT	
DOT Hazard Class:	3	IMDG Hazard Class:	3.3 – High flashpoint flammable liquids
UN / NA Number:	UN 1263	UN Number:	UN 1263
DOT Packing Group:	III	IMDG Packing Group:	III
CERCLA/DOT RQ:	3539 gal. / 44248 lbs.	System Reference Code:	2

15. REGULATORY INFORMATION

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all–inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory. **Note:** Any chemical ingredients listed in Section 15, that do not also appear in Section 2, are contained in the product at a concentration below the applicable OSHA threshold level of 1% or 0.1%.
WHMIS Classification:	B3:D2B
Regulatory List	Product Ingredients on List
DOT Marine Pollutants (10%):	
(No Product Ingredients Listed)	
DOT Severe Marine Pollutants (1%):	
(No Product Ingredients Listed)	
EPCRA 311/312 Chemicals and RQs (>.1%) :	
(No Product Ingredients Listed)	
EPCRA 302 Extremely Hazardous (>.1%) :	
(No Product Ingredients Listed)	
EPCRA 313 Toxic Chemicals (>.1%) :	
000098–82–8	Cumene
000071–36–3	n–Butyl alcohol
000095–63–6	Pseudocumene
001330–20–7	Xylenes (o–, m–, p– isomers)
Mass RTK Substances (>1%) :	
007727–43–7	Barium sulfate
000110–43–0	Methyl n–amyl ketone
000071–36–3	n–Butyl alcohol
000095–63–6	Pseudocumene
000108–67–8	TRIMETHYLBENZENE
Mass Extraordinarily Haz Sub (>.01%) :	

Confidential Business Information

(No Product Ingredients Listed)

Penn RTK Substances (>1%) :

007727–43–7	Barium sulfate
000110–43–0	Methyl n–amyl ketone
000071–36–3	n–Butyl alcohol
000095–63–6	Pseudocumene

Penn Special Hazardous Substances (>.01%) :

(No Product Ingredients Listed)

Rhode Island Hazardous Substances (>.1%) :

000071–36–3	n–Butyl alcohol

RCRA Status (>.01%) :

(No Product Ingredients Listed)

N.J. RTK Substances (>1%) :

(No Product Ingredients Listed)

N.J. Special Hazardous Substances (>.01%) :

000098–82–8	Cumene
000071–36–3	n–Butyl alcohol
001330–20–7	Xylenes (o–, m–, p– isomers)

N.J. Env. Hazardous Substances (>.1%) :

000098–82–8	Cumene
000071–36–3	n–Butyl alcohol
000095–63–6	Pseudocumene
001330–20–7	Xylenes (o–, m–, p– isomers)

Proposition 65 – Carcinogens (>0%):

007440–02–0	Nickel

Proposition 65 – Female Repro Toxins (>0%):

(No Product Ingredients Listed)

Proposition 65 – Male Repro Toxins (>0%):

(No Product Ingredients Listed)

Proposition 65 – Developmental Toxins (>0%):

(No Product Ingredients Listed)

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

End Of Document

Confidential Business Information

MATERIAL SAFETY DATA SHEET

Sales Order: {SalesOrd}

INTERTUF 262/INTERSEAL 670/INTERBOND 201 CONVERTER

MSDS Revision No:	A7 -7
MSDS Revision Date:	01/07/2004

International Paint Inc.

6001 Antoine Drive

Houston, Texas 77091

EMERGENCY NUMBERS:	
(800) 424-9300	CHEMTREC (USA)
(703) 527-3887	CHEMTREC (Intl)
(800) 854-6813	Poison Control Center
CUSTOMER SERVICE:	(Non-Emergency)
(800) 589-1267	International Paint
(800) 631-7481	Interlux

1. GENERAL INFORMATION

Product Identity: INTERTUF 262/INTERSEAL 670/INTERBOND 201 CONVERTER

Bulk Sales Reference No: KHA414

IMPORTANT: Read this MSDS before handling or disposing of this product, and provide this information to the employee, customers, and users of this product. PLEASE NOTE THE MSDS REVISION NUMBER AT THE TOP OF THIS PAGE. If the MSDS Revision Number posted at the top of this page does not match the MSDS Revision Number on the product label, please contact Customer Service at the phone number included above for the correct MSDS. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard.

NOTICE: OSHA hazardous chemicals are listed in Section 2 if present at 1% or more. Carcinogens and extraordinarily/special hazardous chemicals are listed in Section 2 if present at .1% or more. Additional regulatory information for specific chemical categories is included in Section 15.

2. HAZARDOUS INGREDIENT INFORMATION

CAS No.	Ingredient Name & %	Source	Exposure Data
000071-36-3	n-Butyl alcohol 25 - 50% by Weight	OSHA:	100 ppm TWA; 300 mg/m3 TWA50 ppm Ceiling; 150 mg/m3 Ceiling
		ACGIH:	20 ppm TWA
		NIOSH:	50 ppm Ceiling; 150 mg/m3 Ceiling1400 ppm IDLH
		Supplier:	No Data Available
		OHSA, CAN:	50 ppm CEV; 150 mg/m3 CEV
		Mexico:	50 ppm STEL; 150 mg/m3 STEL
		Brazil:	No Data Available
		Source	**Health Data**
		NIOSH:	Eye and mucous membrane irritation CNS depression
		Source	**Carcinogen Data**
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

CAS No.	Ingredient Name & %	Source	Exposure Data

000107-15-3	Ethylene diamine 1.0 - 10% by Weight	OSHA:	10 ppm TWA; 25 mg/m3 TWA
		ACGIH:	10 ppm TWA
		NIOSH:	10 ppm TWA; 25 mg/m3 TWA1000 ppm IDLH
		Supplier:	No Data Available
		OHSA, CAN:	10 ppm TWAEV; 25 mg/m3 TWAEV
		Mexico:	10 ppm TWA; 25 mg/m3 TWA3 mg/m3 STEL
		Brazil:	No Data Available
		Source	**Health Data**
		NIOSH:	Sensitization and primary irritation to the skin mucous membranes
		Source	**Carcinogen Data**
		OSHA:	Select Carcinogen: No
		NTP:	Known Carcinogen: No; Suspected Carcinogen: No
		IARC:	Group 1: No; Group 2A: No; Group 2b: No; Group 3: No; Group 4: No

3. HAZARD IDENTIFICATION

Overview:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing.
Inhalation:	May be harmful or fatal if inhaled. May cause lung injury. Causes nose and throat irritation. Vapors may affect the brain or nervous system causing dizziness, headache or nausea.
Eyes:	Causes eye burns. Do not get in eyes.
Skin:	Causes skin burns. May be harmful if absorbed through the skin.
Ingestion:	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.
Chronic Effects:	Contains an ingredient which can cause organ damage (See Section 2 and Section 15 for each ingredient). Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 2 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
HMIS Rating:	Health: 3 Flammability: 2 Reactivity: 0

4. FIRST AID MEASURES

General:	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion:	If swallowed, immediately contact Poison Control Center at 1-800-854-6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory:	Select equipment to provide protection from the ingredients listed in Section 2 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1-800-243-4630, in Canada call 1-800-267-4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.
Eyes:	Do not get in eyes. Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site-specific conditions of use, safety glasses, chemical goggles, and/or head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.

Skin/Hand:	Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 2 of this document. Depending on the site-specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.
Engineering Controls:	Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation.
Other Work Practices:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

6. FIRE AND EXPLOSION INFORMATION

Flash Point:	F: 103 C: 39
Lower Explosive Limit (LEL):	1.73 (%vol in air) at Normal Atmospheric Temp and Pressure
Fire and Explosion Hazards:	Combustible liquid and vapor. FLAMMABLE/COMBUSTIBLE MATERIALS: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) creating a vapor explosion hazard. Runoff to sewers may create fire or explosion hazard. Containers may explode when heated.
Fire Fighting Procedures:	CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO2, water spray or alcohol-resistant foam. LARGE FIRES: Use water spray, fog, or alcohol-resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material. **Also Reference Emergency Response Guide Number:** 127

7. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	Not Determined
Specific Gravity:	0.92968
Boiling Point (F):	243
Vapor Density:	Heavier than air
VOC Content (lbs):	Refer to the Technical Data Sheet for this product.
Evaporation Rate:	Slower than ether

8. STABILITY AND REACTIVITY DATA

General:	This product is stable and hazardous polymerization will not occur.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decompostion:	May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Carbon Dioxide and Carbon Monoxide.

9. HANDLING AND STORAGE

Storage Temperature:	Store between 32 and 120 F
Handling and Storage Precautions:	Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Vapors may cause flash fire or ignite explosively. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. Do not get in eyes, on skin or clothing. Close container after each use. Wash thoroughly after handling.

10. TOXICOLOGICAL DATA

General:	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. No additional information provided for this product. See Section 2 for chemical specific data.

11. ECOLOGICAL DATA

General:	No additional information provided for this product. See Section 2 for chemical specific data.

12. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures:	ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non-sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Use non-sparking tools to collect absorbed material.
Public Safety:	CALL CHEMTREC at (800)-424-9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet). **Also, Reference Emergency Response Guide Number: 127**

13. DISPOSAL CONSIDERATION

Waste Disposal:	Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

14. TRANSPORTATION INFORMATION

DOT (Domestic Surface Transportation)		IMO / IMDG (Ocean Transportation)	
DOT Proper Shipping Name:		**IMDG Proper Shipping Name:**	
PAINT		PAINT	
DOT Hazard Class:	3	**IMDG Hazard Class:**	3.3 - High flashpoint flammable liquids
UN / NA Number:	UN 1263	**UN Number:**	UN 1263
DOT Packing Group:	III	**IMDG Packing Group:**	III
CERCLA/DOT RQ:	2073 gal. / 16057 lbs.	**System Reference Code:**	1

15. REGULATORY INFORMATION

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory. **Note:** Any chemical ingredients listed in Section 15, that do not also appear in Section 2, are contained in the product at a concentration below the applicable OSHA threshold level of 1% or 0.1%.
WHMIS Classification:	B3; D2B; E
Regulatory List	**Product Ingredients on List**
DOT Marine Pollutants (10%):	
(No Product Ingredients Listed)	
DOT Severe Marine Pollutants (1%):	
(No Product Ingredients Listed)	
EPCRA 311/312 Chemicals and RQs (>.1%) :	
000071-36-3	n-Butyl alcohol : 5000 lb final RQ; 2270 kg final RQ
000107-15-3	Ethylene diamine : 5000 lb final RQ; 2270 kg final RQ
EPCRA 302 Extremely Hazardous (>.1%) :	

000107-15-3	Ethylene diamine : 10,000 lb TPQ
EPCRA 313 Toxic Chemicals (>.1%) :	
000071-36-3	n-Butyl alcohol
Mass RTK Substances (>1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
Mass Extraordinarily Haz Sub (>.01%) :	
000107-15-3	Ethylene diamine
Penn RTK Substances (>1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
Penn Special Hazardous Substances (>.01%) :	
(No Product Ingredients Listed)	
Rhode Island Hazardous Substances (>.1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
RCRA Status (>.01%) :	
(No Product Ingredients Listed)	
N.J. RTK Substances (>1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
N.J. Special Hazardous Substances (>.01%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
N.J. Env. Hazardous Substances (>.1%) :	
000071-36-3	n-Butyl alcohol
000107-15-3	Ethylene diamine
Proposition 65 - Carcinogens (>0%):	
(No Product Ingredients Listed)	
Proposition 65 - Female Repro Toxins (>0%):	
(No Product Ingredients Listed)	
Proposition 65 - Male Repro Toxins (>0%):	
(No Product Ingredients Listed)	
Proposition 65 - Developmental Toxins (>0%):	
(No Product Ingredients Listed)	

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

End Of Document

CHEVRON

MATERIAL SAFETY DATA SHEET

N/AP = NOT APPLICABLE
N/AV = NOT AVAILABLE

------SECTION 1--PRODUCT IDENTIFICATION AND USE ------

MSDS 1048

PRODUCT IDENTIFIER
KEROSENE (GENERIC)

WHMIS CLASSIFICATION
B3, D2B

PRODUCT IDENTIFICATION NUMBER (PIN)
UN 1268

PRODUCT USE
VARIOUS

SUPPLIERS NAME
CHEVRON CANADA LIMITED

STREET ADDRESS
1500 - 1050 WEST PENDER STREET

CITY
VANCOUVER

PROVINCE
B.C.

POSTAL CODE
V6E 3T4

EMERGENCY TELEPHONE NO.
1-800-457-2022

MANUFACTURER'S NAME
CHEVRON CANADA LIMITED

STREET ADDRESS
1500 - 1050 WEST PENDER STREET

CITY
VANCOUVER

PROVINCE
B.C.

POSTAL CODE
V6E 3T4

EMERGENCY TELEPHONE NO.
1-800-457-2022

------SECTION 2--HAZARDOUS INGREDIENTS ------

HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD50 OF INGREDIENT (SPECIFY SPECIES AND ROUTE)
KEROSENE	60-100	8008206	>5.0 G/KG RAT, ORAL >2.0 G/KG RABBIT, ACUTE DERMAL

HAZARDOUS INGREDIENTS	LC50 OF INGREDIENT (SPECIFY SPECIES)
KEROSENE	>5 MG/L FOR 4HRS., RAT

------SECTION 3--PHYSICAL DATA ------

PHYSICAL STATE
LIQUID

ODOUR AND APPEARANCE
PALE YELLOW LIQUID WITH A PETROLEUM ODOUR

ODOUR THRESHOLD (PPM)
N/AV

VAPOUR PRESSURE (MM HG)
N/AV

VAPOUR DENSITY (AIR=1)
N/AV

EVAPORATION RATE
N/AV

BOILING POINT (DEG. C)
204 - 300 DEG. C

FREEZING POINT (DEG. C)
N/AV

PH
N/AV

SPECIFIC GRAVITY
0.85 @ 15.6/15.6 DEG. C (MIN.)

COEFF.WATER/OIL DIST.
N/AV

------SECTION 4--FIRE AND EXPLOSION DATA ------

FLAMMABILITY

YES (X)
NO ( )

IF YES, UNDER WHICH CONDITIONS?
COMBUSTIBLE-LIQUID EVAPORATES AND FORMS VAPOUR (FUMES) THAT CAN CATCH FIRE AND BURN WITH EXPLOSIVE VIOLENCE. FIRE HAZARD IS GREATER AS LIQUID TEMPERATURE RISES ABOVE 85 DEG. F.

MEANS OF EXTINCTION
CO_2, DRY CHEMICAL, FOAM AND WATER FOG.

FLASH POINT (DEG. C) AND METHOD
38 DEG. C (TCC)

UPPER FLAMMABLE LIMIT (% BY VOLUME)
4.7

LOWER FLAMMABLE LIMIT (% BY VOLUME)
0.6

AUTOIGNITION TEMPERATURE (DEG. C)
N/AV

HAZARDOUS COMBUSTION PRODUCTS
CARBON MONOXIDE

EXPLOSION DATA:
SENSITIVITY TO IMPACT
N/AV

SENSITIVITY TO STATIC DISCHARGE
N/AV

------SECTION 5--REACTIVITY DATA ------

CHEMICAL STABILITY
YES (X)
NO ( )

IF NO, UNDER WHICH CONDITIONS?

INCOMPATIBILITY WITH OTHER SUBSTANCES
YES (X)
NO ( )

IF SO, WHICH ONES?
MAY REACT WITH STRONG OXIDIZING AGENTS, SUCH AS CHLORATES, NITRATES, PEROXIDES, ETC.

REACTIVITY, AND UNDER WHAT CONDITIONS
N/AV

HAZARDOUS DECOMPOSITION PRODUCTS
N/AV

------SECTION 6--TOXICOLOGICAL PROPERTIES ------

ROUTE OF ENTRY

SKIN CONTACT (X)
SKIN ABSORPTION ( )
EYE CONTACT ( )
INHALATION (X)
INGESTION ( )

EFFECTS OF ACUTE EXPOSURE TO PRODUCT
THIS SUBSTANCE IS A MODERATE SKIN IRRITANT, SO CONTACT WITH THE SKIN COULD CAUSE PROLONGED (DAYS) INJURY TO THE AFFECTED AREA. THE DEGREE OF INJURY WILL DEPEND ON THE AMOUNT OF MATERIAL THAT GETS ON THE SKIN AND THE SPEED AND THOROUGHNESS OF THE FIRST AID TREATMENT. SIGNS AND SYMPTOMS MAY INCLUDE PAIN OR A FEELING OF HEAT, DISCOLORATION, SWELLING AND BLISTERING. BECAUSE OF THE LOW VISCOSITY OF THIS SUBSTANCE, IT CAN DIRECTLY ENTER THE LUNGS IF IT IS SWALLOWED. THIS CAN OCCUR DURING THE ACT OF SWALLOWING OR WHEN VOMITING THE SUBSTANCE. ONCE IN THE LUNGS, THE SUBSTANCE IS VERY DIFFICULT TO REMOVE AND CAN CAUSE SEVERE INJURY TO THE LUNGS AND DEATH.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT
PROLONGED BREATHING OF VAPOURS CAN CAUSE CENTRAL NERVOUS SYSTEM EFFECTS. SIGNS AND SYMPTOMS OF CENTRAL NERVOUS SYSTEM EFFECTS MAY INCLUDE ONE OR MORE OF THE FOLLOWING: HEADACHE, DIZZINESS, LOSS OF APPETITE, WEAKNESS AND LOSS OF COORDINATION.
NOT EXPECTED TO CAUSE PROLONGED OR SIGNIFICANT EYE IRRITATION AND SHOULD BE PRACTICALLY NONTOXIC TO INTERNAL ORGANS IF IT IS GETS ON SKIN OR IS SWALLOWED.

EXPOSURE LIMITS
N/AV

TERATOGENICITY
N/AV

IRRITANCY OF PRODUCT
SEE EFFECTS OF ACUTE EXPOSURE TO PRODUCT

REPRODUCTIVE TOXICITY
N/AV

SENSITIZATION TO PRODUCT
NOT SENSITIZING

MUTAGENICITY
SEE SECTION 9

CARCINOGENICITY
SEE SECTION 9

SYNERGISTIC PRODUCTS
N/AV

------SECTION 7--PREVENTIVE MEASURES ------

GLOVES (SPECIFY)
NITRILE, VITON

RESPIRATOR (SPECIFY)
NO SPECIAL RESPIRATORY PROTECTION IS NORMALLY REQUIRED. HOWEVER, IF OPERATING CONDITIONS CREATE HIGH AIRBORNE CONCENTRATIONS, THE USE OF AN AIR-PURIFYING RESPIRATOR WITH AN ORGANIC VAPOUR CARTRIDGE IS RECOMMENDED.

EYE (SPECIFY)
NONE, HOWEVER, EYE CONTACT CAN BE AVOIDED BY WEARING CHEMICAL GOGGLES.

FOOTWEAR (SPECIFY)
N/AV

CLOTHING (SPECIFY)
FOR MAXIMUM PROTECTION, IF SEVERE SPLASHING IS ANTICIPATED, RAIN GEAR MADE FROM NITRILE OR POLYURETHANE IS RECOMMENDED.

OTHER (SPECIFY)
N/AV

ENGINEERING CONTROLS (SPECIFY, E.G. VENTILATION, ENCLOSED PROCESS)
USE THIS MATERIAL ONLY IN WELL VENTILATED AREAS.

LEAK AND SPILL PROCEDURE
ELIMINATE ALL SOURCES OF IGNITION IN VICINITY OF SPILL OR RELEASED VAPOUR. CLEAN UP SPILLS IMMEDIATELY, OBSERVING PRECAUTIONS IN SECTION 7 - PREVENTIVE MEASURES. THIS MATERIAL IS CONSIDERED TO BE A WATER POLLUTANT, AND RELEASES OF THIS PRODUCT SHOULD BE PREVENTED FROM CONTAMINATING SOIL AND WATER AND FROM ENTERING DRAINAGE AND SEWER SYSTEMS. CLEAN UP SMALL SPILLS USING APPROPRIATE TECHNIQUES SUCH AS SORBENT MATERIALS OR PUMPING. WHERE FEASIBLE AND APPROPRIATE, REMOVE CONTAMINATED SOIL. FOLLOW PRESCRIBED PROCEDURES FOR REPORTING AND RESPONDING TO LARGER RELEASES.

WASTE DISPOSAL
PLACE CONTAMINATED MATERIALS IN DISPOSABLE CONTAINERS AND DISPOSE OF IN A MANNER CONSISTENT WITH APPLICABLE REGULATIONS.

HANDLING PROCEDURES AND EQUIPMENT
DO NOT USE OR STORE NEAR FLAME, SPARKS OR HOT SURFACES. USE ONLY IN WELL VENTILATED AREA. KEEP CONTAINER CLOSED. DO NOT WELD, HEAT OR DRILL CONTAINER. REPLACE CAP OR BUNG. EMPTIED CONTAINER STILL CONTAINS HAZARDOUS OR EXPLOSIVE VAPOUR OR LIQUID. CAUTION! DO NOT USE PRESSURE TO EMPTY DRUM OR DRUM MAY RUPTURE WITH EXPLOSIVE FORCE.

WARNING! NOT FOR USE AS PORTABLE HEATER OR APPLIANCE FUEL. TOXIC FUMES MAY ACCUMULATE AND CAUSE DEATH.

STORAGE REQUIREMENTS
DO NOT STORE NEAR FLAME, SPARKS OR HOT SURFACES.

SPECIAL SHIPPING INFORMATION
N/AV

------SECTION 8--FIRST AID MEASURES ------

SPECIFIC MEASURES

EYE CONTACT: NO FIRST AID PROCEDURES ARE REQUIRED. HOWEVER, AS A PRECAUTION, FLUSH EYES WITH FRESH WATER FOR 15 MINUTES. REMOVE CONTACT LENSES IF WORN.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND WASH SKIN THOROUGHLY WITH SOAP AND WATER. SEE A DOCTOR IF ANY SIGNS OR SYMPTOMS DESCRIBED IN THIS DOCUMENT OCCUR. DISCARD CONTAMINATED NON-WATERPROOF SHOES AND BOOTS. WASH CONTAMINATED CLOTHING.

INHALATION: IF ANY SIGNS OR SYMPTOMS DESCRIBED IN THIS DOCUMENT OCCUR, MOVE THE PERSON TO FRESH AIR. IF ANY OF THESE EFFECTS CONTINUE, SEE A DOCTOR.

INGESTION: IF SWALLOWED, GIVE WATER OR MILK TO DRINK AND TELEPHONE FOR MEDICAL ADVICE. DO NOT MAKE PERSON VOMIT UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. IF MEDICAL ADVICE CANNOT BE OBTAINED, THEN TAKE THE PERSON AND PRODUCT CONTAINER TO THE NEAREST MEDICAL EMERGENCY TREATMENT CENTRE OR HOSPITAL. NOTE TO PHYSICIAN: INGESTION OF THIS PRODUCT OR SUBSEQUENT VOMITING CAN RESULT IN ASPIRATION OF LIGHT HYDROCARBON LIQUID WHICH CAN CAUSE PNEUMONITIS.

------SECTION 9--ADDITIONAL HEALTH DATA ------

THIS PRODUCT CONTAINS A MIXTURE OF PETROLEUM HYDROCARBONS CALLED MIDDLE DISTILLATES (WHICH MEANS THEY BOIL BETWEEN APPROXIMATELY 350 DEG. F AND 700 DEG. F). BECAUSE OF THIS BROAD DESCRIPTION, MANY PRODUCTS ARE CONSIDERED MIDDLE DISTILLATES YET THEY ARE PRODUCED BY A VARIETY OF DIFFERENT PETROLEUM REFINING PROCESSES. TOXICOLOGY DATA DEVELOPED ON SOME MIDDLE DISTILLATES FOUND THAT THEY CAUSED POSITIVE RESPONSES IN SOME MUTAGENICITY TESTS AND CAUSED SKIN CANCER WHEN REPEATEDLY APPLIED TO MICE OVER THEIR LIFETIME. THIS PRODUCT MAY CONTAIN SOME MIDDLE DISTILLATES FOUND TO CAUSE THOSE ADVERSE EFFECTS.

PRODUCT TOXICOLOGY DATA

MINIMAL EFFECTS CLEARING IN LESS THAN 24 HOURS.
MODERATE IRRITATION AT 72 HOURS (MODERATE ERYTHEMA).
THE DERMAL LD50 IN RABBITS IS >5 ML/KG.
THE 4-HOUR INHALATION LC50 IN RATS IS >5 MG/L.
THE ORAL LD50 IN RATS IS >5 ML/KG.

PREPARATION DATE OF MSDS

PREPARED BY (GROUP, DEPARTMENT, ETC.)
CHEVRON CANADA LIMITED

PHONE NUMBER
(604) 668-5554

DATE
DECEMBER 1992

MATERIAL SAFETY DATA SHEET

K08304
01 00

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

K08304

HMIS CODES

Health	2*
Flammability	3
Reactivity	0

PRODUCT NAME
KRYLON* LINE-UP* Striping Paint (Solvent Based), Cover-Up Black

MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
Diversified Brands
Cleveland, OH 44115

EMERGENCY TELEPHONE NO.
(216) 566-2917

DATE OF PREPARATION
07-DEC-06

INFORMATION TELEPHONE NO.
(800) 247-3266

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT			UNITS	VAPOR PRESSURE
15	74-98-6	Propane				
			ACGIH TLV	2500	ppm	760 mm
			OSHA PEL	1000	ppm	
7	106-97-8	Butane				
			ACGIH TLV	800	ppm	760 mm
			OSHA PEL	800	ppm	
9	64742-89-8	V. M. & P. Naphtha				
			ACGIH TLV	300	ppm	12 mm
			OSHA PEL	300	ppm	
			OSHA PEL	400	ppm STEL	
12	108-88-3	Toluene				
			ACGIH TLV	50	ppm (Skin)	22 mm
			OSHA PEL	100	ppm (Skin)	
			OSHA PEL	150	ppm (Skin) STEL	
0.2	100-41-4	Ethylbenzene				
			ACGIH TLV	100	ppm	7.1 mm
			ACGIH TLV	125	ppm STEL	
			OSHA PEL	100	ppm	
			OSHA PEL	125	ppm STEL	
1	1330-20-7	Xylene				
			ACGIH TLV	100	ppm	5.9 mm
			ACGIH TLV	150	ppm STEL	
			OSHA PEL	100	ppm	
			OSHA PEL	150	ppm STEL	
2	111-76-2	2-Butoxyethanol				
			ACGIH TLV	20	ppm	0.88 mm
			OSHA PEL	25	ppm	
14	67-64-1	Acetone				
			ACGIH TLV	500	ppm	180 mm
			ACGIH TLV	750	ppm STEL	
			OSHA PEL	1000	ppm	
20	14807-96-6	Talc				
			ACGIH TLV	2	mg/m3 as Resp. Dust	
			OSHA PEL	2	mg/m3 as Resp. Dust	

Continued on page 2

0.7	1333-86-4	Carbon Black		
		ACGIH TLV	3.5	mg/m3
		OSHA PEL	3.5	mg/m3

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 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
Propellant < 0 F	0.9	12.8

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.

Continued on page 3

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.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

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.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

Continued on page 4

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	7.26 lb/gal	869 g/l
SPECIFIC GRAVITY	0.87	
BOILING POINT	<0 - 343 F	<-18 - 172 C
MELTING POINT	Not Available	
VOLATILE VOLUME	80 %	
EVAPORATION RATE	Faster than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
pH	7.0	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

Volatile Weight 49.49% 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

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, blood forming, cardiovascular and reproductive systems.

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

Continued on page 5

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
64742-89-8	V. M. & P. Naphtha				
		LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
108-88-3	Toluene				
		LC50	RAT	4HR	4000 ppm
		LD50	RAT		5000 mg/kg
100-41-4	Ethylbenzene				
		LC50	RAT	4HR	Not Available
		LD50	RAT		3500 mg/kg
1330-20-7	Xylene				
		LC50	RAT	4HR	5000 ppm
		LD50	RAT		4300 mg/kg
111-76-2	2-Butoxyethanol				
		LC50	RAT	4HR	Not Available
		LD50	RAT		470 mg/kg
67-64-1	Acetone				
		LC50	RAT	4HR	Not Available
		LD50	RAT		5800 mg/kg
14807-96-6	Talc				
		LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
1333-86-4	Carbon Black				
		LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available

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

No data available.

Continued on page 6

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
108-88-3	Toluene	12	
100-41-4	Ethylbenzene	0.2	
1330-20-7	Xylene	1	
	Glycol Ethers	2	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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.

NALCO CHEMICAL CO WATERGY GROUP -- NALCOOL 3000 W/STABIL AID -- 6850-00F025891

========== Product Identification ==========

Product ID:NALCOOL 3000 W/STABIL AID
MSDS Date:01/13/1988
FSC:6850
NIIN:00F025891
MSDS Number: BQGYL
=== Responsible Party ===
Company Name:NALCO CHEMICAL CO WATERGY GROUP
Address:ONE NALCO CENTER
City:NAPERVILLE
State:IL
ZIP:60566-1024
Country:US
Info Phone Num:312-961-9500
Emergency Phone Num:312-920-1510
Preparer's Name:JOHN J KASPER
CAGE:89524
=== Contractor Identification ===
Company Name:ONDEO NALCO COMPANY
Address:ONDEO NALCO CENTER
Box:City:NAPERVILLE
State:IL
ZIP:60563-1198
Country:US
Phone:(630) 305-1000
CAGE:89524

========== Composition/Information on Ingredients ==========

Ingred Name:SODIUM HYDROXIDE, CAUSTIC SODA, LYE
CAS:1310-73-2
RTECS #:WB4900000
Fraction by Wt: 1-10%
Other REC Limits:2MG/M3 CEILING NIOSH
OSHA PEL:2 MG/M3
ACGIH TLV:C 2 MG/M3; 9293
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:SODIUM NITRITE
CAS:7632-00-0
RTECS #:RA1225000
Fraction by Wt: 1-10%
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name:BORATES, TETRA, SODIUM SALT, ANHYDROUS, SODIUM TETRABORATE
CAS:1330-43-4
RTECS #:VZ2240000
Fraction by Wt: 1-10%
OSHA PEL:10 MG/CUM
ACGIH TLV:1 MG/CUM

Ingred Name:SODIUM MERCAPTOBENZOTHIAZOLE
CAS:2492-26-4
RTECS #:DL6825000
Fraction by Wt: 1-10%

Hazards Identification

LD50 LC50 Mixture:LD50 (RAT): 2,532-3,236 MG/KG
Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:INHALATION: CENTRAL NERVOUS SYSTEM EFFECTS, HEADACHES, TREMORS, DROWSINESS & CONVULSIONS. INGESTION: KIDNEY DAMAGE, DROP IN BLOOD PRESSURE, RAPID PULSE, HEADACHES & VISUAL DISTURBANCES, CYANOSIS & POS SIBLE DEATH. EYE/SKIN: IRRITATION.
Explanation of Carcinogenicity:NONE
Effects of Overexposure:SKIN: DERMATITIS. INGESTION: METHAEMOGLOBINAEMIA, KIDNEY DAMAGE, FATAL.
Medical Cond Aggravated by Exposure:ALLERGIC REACTION

First Aid Measures

First Aid:EYES/SKIN: WASH W/WATER FOR AT LEAST 15 MINS. INGESTION: INDUCE VOMITING. GIVE WATER. INHALATION: REMOVE TO FRESH AIR, IF UNCONSCIOUS, HAVING TROUBLE BREATHING OR IN CONVULSIONS, DON'T INDUCE VOMITING OR GIVE WATER. OBTAIN MEDICAL ATTENTION IN ALL CASES.

Fire Fighting Measures

Flash Point Method:PMCC
Flash Point:NONE
Unusual Fire/Explosion Hazard:MAY EVOLVE NITRIC OXIDE OR SULFURIC OXIDE UNDER FIRE CONDITIONS.

Accidental Release Measures

Spill Release Procedures:SMALL SPILLS: CONTAIN W/ABSORBENT MATERIAL SUCH AS CLAY OR SOIL. SHOVEL LIQUID & ABSORBENT INTO DRUMS FOR DISPOSAL. LARGE SPILLS: DIKE TO PREVENT FUTHER MOVEMENT & RECLAIM INTO RECOVERY OR SALVAGE DRU MS OR TANK TRUCK FOR DISPOSAL.

Handling and Storage

Handling and Storage Precautions:EMPTY CONTAINERS MAY CONTAIN RESIDUAL PRODUCT. DON'T REUSE CONTAINER UNLESS PROPERLY RECONDITIONED.
Other Precautions:DON'T BREATH SMOKE OR FUMES. AVOID CONTACT W/EYES & SKIN.

Exposure Controls/Personal Protection

Respiratory Protection:WEAR A NIOSH APPROVED OR EQUIVALENT RESPIRATOR.
Ventilation:GENERAL: RECOMMENDED
Protective Gloves:RECOMMENDED
Eye Protection:CHEMICAL SPLASH GOGGLES
Other Protective Equipment:BOOTS, APRON, FACE SHIELD, EYE WASH FOUNTAIN & SAFETY SHOWER. A FULL SLICKER SUIT IS RECOMMENDED.
Work Hygienic Practices:IF CLOTHING IS CONTAMINATED , REMOVE CLOTHING &

THOROUGHLY WASH BEFORE REUSE.
Supplemental Safety and Health
NOTE TO PHYSICIAN: NO SPECIFIC ANTIDOTE IS KNOWN. BASED ON THE INDIVIDUAL REACTIONS OF THE PATIENT, THE PHYSICIANS JUDGMENT SHOULD BE USED TO CONTROL SYMPTOMS & CLINICAL CONDITION.

Physical/Chemical Properties

Boiling Pt:B.P. Text:212F
Melt/Freeze Pt:M.P/F.P Text:18F
Spec Gravity:1.14
pH:11.6
Solubility in Water:COMPLETE
Appearance and Odor:RED LIQUID, ODORLESS

Stability and Reactivity Data

Stability Indicator/Materials to Avoid:YES
NITROUS ACIDS, ORGANIC OR INORGANIC NITRITES OR ATMOSPHERES W/HIGH NITROUS OXIDE CONCENTRATIONS.
Hazardous Decomposition Products:CO, CO2, NITRIC OXIDE & SULFURIC OXIDES

Disposal Considerations

Waste Disposal Methods:AS A NON-HAZARDOUS LIQUID WASTE, IT SHOULD BE SOLIDIFIED BEFORE DISPOSAL TO A SANITARY LANDFILL. CAN BE DEEP-WELL INJECTED IN ACCORDANCE W/LOCAL, STATE & FEDERAL REGULATIONS. D001-D017

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Explanation of Carcinogenicity:NONE
Effects of Overexposure:SKIN: DERMATITIS. INGESTION: METHAEMOGLOBINAEMIA, KIDNEY DAMAGE, FATAL.
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Fire Fighting Measures

Flash Point Method:PMCC
Flash Point:NONE
Unusual Fire/Explosion Hazard:MAY EVOLVE NITRIC OXIDE OR SULFURIC OXIDE UNDER FIRE CONDITIONS.

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Other Precautions:DON'T BREATH SMOKE OR FUMES. AVOID CONTACT W/EYES & SKIN.

Exposure Controls/Personal Protection

Respiratory Protection:WEAR A NIOSH APPROVED OR EQUIVALENT RESPIRATOR.
Ventilation:GENERAL: RECOMMENDED
Protective Gloves:RECOMMENDED
Eye Protection:CHEMICAL SPLASH GOGGLES
Other Protective Equipment:BOOTS, APRON, FACE SHIELD, EYE WASH FOUNTAIN & SAFETY SHOWER. A FULL SLICKER SUIT IS RECOMMENDED.
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Melt/Freeze Pt:M.P/F.P Text:18F
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Appearance and Odor:RED LIQUID, ODORLESS

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Material Safety Data Sheet (MSDS)

NAPA Brake Fluid DOT 3

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MATERIAL SAFETY DATA SHEET
Effective Date: 11-15-99 Revision Date: none
NAPA Brake Fluid DOT 3
Code: CST Page: 1

==========

Section 1 - Product and Company Identification

PRODUCT NAME: NAPA Brake Fluid DOT 3

MANUFACTURER'S NAME: EMERGENCY TELEPHONE NUMBER
Coastal Uni-Lube Inc. (713)877-1400
9 Greenway Plaza
Houston, TX 77046 MISCELLANEOUS INFORMATION

==========

Section 2 - Hazardous Ingredients

Product Name	CAS #	Wt.	OSHA PEL	ACGIH TLV	Other	Units
Coastal S. H. D. Brake Fluid Mixture DOT3		100%	NA	NA		
Ingredients Blend of various Glycol Ethers, Glycol and Polyglycol	NA-P	100%	NA	NA	NA	PPM

NA= Not Available
NA-P= Information is claimed proprietary by supplier
STEL= Short Term Exposure Limit; 15 Minutes

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MATERIAL SAFETY DATA SHEET
Effective Date: none Revision Date: none
NAPA Brake Fluid DOT 3
Code: CST Page: 2

==========

Section 3 - Hazards Indentification

This product has not been tested as a whole to determine its specific hazards. The information provided in this section is based on health hazard information on the product components.

Effects of overexposure:
Acute:
EYES: May cause severe eye irritation and chemical burns.
SKIN: Slightly irritating to the skin. Harmful amounts may be absorbed through the skin with extensive and prolonged contact.
INHALATION: Exposure to vapors or mist may result in irritation of the respiratory tract, headache, drowsiness and dizziness. High concentrations of ethylene glycol ethers may be lethal.
INGESTION: May cause irritation of the mouth, throat, and the

Confidential Business Information

respiratory tract, abdominal discomfort, dizziness, lumbar pain, CNS depression, kidney and liver damage.

Chronic: Prolonged or repeated contact may result in toxic amounts being absorbed through the skin.

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No

==========

Section 4 - First Aid Measures

Eye Contact: Flush thoroughly with large amounts of water for at least 15 minutes, including underthe eye lids. Contact a physician immediately, preferably an opthamologist. Speed and thoroughness in rinsing eyes are important to avoid permanent injury.

Skin Contact: Remove contaminated clothing. Wash affected areas with soap and water. If irritation occurs, get medical help. Discard contaminated shoes.

Inhalation: Remove to fresh air. If breathing has stopped, apply artificial respiration. Get immediate medical attention.

Ingestion: Never give anything by mouth to an unconsious or convulsing person. Have the affected person, if conscious, drink 1 to 2 glasses of water, then induce vomiting. Get immediate medical attention.

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Section 5 - Firefighting Measures

Flash Point:	>200 F
Flammable Limits in Air % by Vol.:	Lower: N.A. Upper: N.A.
Autoignition Temperature:	N.A.
Extinguishing Media:	Dry chemical, foam, carbon dioxide

Special Fire Fighting Procedure: Water spray may be used to keep fire-exposed containers cool, preventing pressure build up and explosion. Firefighters should wear self-contained breathing apparatus.

Unusual Fire or Explosion Hazard: May ignite when sufficient heat is applied.

==========

Section 6 - Environmental Release Measures

Spill Procedures: Remove sources of heat or ignition including internal combustion engines and power tools. Remove spill with vacuum trucks or pump and soak up residue with an absorbent. Use approved respirator where occupational exposure limits may be exceeded.

==========

Section 7 - Handling and Storage

Store in tightly closed aontainers in an dry place, away from incompatible materials or sources of heat, ignition or strong oxidizers. Ground and bond all transfer and storage equipment. Empty containers may contain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, puncture, incinerate, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks or other sources of ignition.

==========

Section 8 - Exposure Controls/Personal Protection

Eye Protection: Remove contact lenses and wear chemical safety goggles where contact with liquid or mist may occur.

Skin Protection: Wear impervious gloves when contact with skin may occur. Use face shield where splashing may occur. Wash with soap and water before

Confidential Business Information 00035659

eating, drinking and smoking. Launder contaminated clothing before reuse.

Inhalation: Use approved respiratory protective equipment for cleaning large spills or entry into large tanks, vessels or other confined spaces or in situations where exposure may exceed occupational exposure levels.

Ventilation: Provide adequate general and local exhaust ventilation: (1) to keep mist and vapors below occupational exposure levels; and (2) to prevent the formation of an oxygen deficient atmosphere, particularly in a confined space.

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Section 9 - Physical and Chemical Properties

Boiling Point 760 mmHg:	401 F	Melting Point:	N.A.
Vapor Pressure mmHg @ 100F:	<0.1	Vapor Density (air=1):	N.A.
Solubility in H2O %:	Soluble	pH:	N.A.
Specific Gravity(H2O):	1.02-1.04	Evaporation Rate: (ethyl ether=1):	N.A.
% Volatile by Volume:	N.A.		
Viscosity (method, temp):	N.A.		

Appearance: Clear liquid Odor: Mild ether odor
N.A. = Not Available

==========

Section 10 - Stability and Reactivity

Stability: Stable
Hazardous Polymerization: Will not occur.
Conditions to Avoid/Incompatibility: Strong oxidizing agents, heat, spark, flame and build-up of static electricity.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, water and/or oxygenated hydrocarbons.

==========

Section 11 - Toxicological Information

Persons with preexisting resperatory, liver, kidney, eye or skin diseases may be adversely affected by this product. Ethylene glycol and ethylene glycol ethers have produced dose-related teratogenic effects and maternal toxicity in laboratory animals. Exposure to vapors of ethylene glycol ethers have caused testicular atrophy in laboratory animals.

==========

Section 12 - Ecological Information

No information.

==========

Section 13 - Disposal Considerations

Waste Disposal: Dispose through a licensed waste disposal company. Follow federal, state and local regulations.

==========

Section 14 - Transport Information

Not applicable.

==========

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Section 15 - Regulatory Information

SARA TITLE III INFORMATION

Confidential Business Information 00035660

Section 311/312 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive
X	X			

SARA Hazardous Substances

Ingredient	CAS No.	%, wt	Sec 313	Sec 302	RQ, lb	TPQ, lb
Ethylene Glycol	110-80-5	NA	X			
Glycol Ethers	various	<75	X			

Key: Sec 313 = Toxic Chemicals, Section 313
Sec 302 = Extremely Hazardous Substances (EHS)
RQ = Reportable Quantity of EHS
TPQ = Threshold Planning Quantity of EHS

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Section 16 - Other Information

CALIFORNIA PROPOSITION 65 WARNING

Chemicals known to the State of California to cause cancer, birth defects or other reproductive harm may be found in the petroleum products. Although it is possible to sufficiently refine the petroleum products to remove the potential for cancer, we are advising that one or more of the listed chemicals may be present in some detectable quantities. Read and follow directions and use care when handling these petroleum products.

THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF THIS COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABLENESS AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

Return to previous page.

Return to top of page.

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Confidential Business Information 00035661

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29CFR 1910 1200 Standard must be consulted for specific requirements

OSPHO METAL TREATMENT

QUICK IDENTIFIER
Common Name (used on label and list)

SECTION 1 –

Manufacturer's Name: THE SKYBRYTE COMPANY

Address: 3125 PERKINS AVENUE

City, State, and ZIP: CLEVELAND, OHIO 44114

Emergency Telephone No: 800-424-9300 (CHEMTREC)

Other Information Calls: 703-527-3887 (CHEMTREC DIRECT)
216-771-1590 (SKYCO)

Signature of Person Responsible for Preparation (Optional): S. L. PITCHER

Date Prepared: MARCH 26, 2007

SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common name(s))	OSHA PEL	ACGIH TLV	Other Exposure Limits	% (optional)	CAS NO
PHOSPHORIC ACID SOLUTION (75%)	1 mg/m^3	1 mg/m^3	3 mg/m^3 STEL	45.0%	7664-38-2

Section 313 Supplier Notification: This product contains the following toxic chemicals subject to the requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (4O CFR 372) :

VOC = 0%

CHEMICAL NAME:		% BY WIEGHT	DOT Hazard: Class 8
PHOSPHORIC ACID SOLUTION (75%)	CAS# 7664-38-2	45.0%	UN# 1805 PG III

All ingredients of this product are listed in compliance withSection 15 of the Toxic Substance Control Act (T.S.C.A.)

This information should be included in all MSDS sheets that are distributed.

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: 240F

Specific Gravity (H_2O=1): 1.22+/-.04

Vapor Pressure (mm Hg): UNK

Vapor Density (Air = 1): N/A

Solubility in Water: 100% pH < 2 (strong acid)

Reactivity in Water: NONE

Appearance and Odor: GREEN LIQUID WITH TYPICAL ACIDIC ODOR

Melting Point: N/A

SECTION 4 – FIRE & EXPLOSION DATA

Flash Point: N/A C

Method Used: NON-FLAMMABLE

Flammable Limits in Air % by Volume: LEL Lower N/A UEL Upper N/A

Auto-Ignition Temperature: N/A

Extinguisher Media: N/A

Special Fire Fighting Procedures: N/A

Unusual Fire and Explosion Hazards: MAY DECOMPOSE TO RELEASE OXYGEN AROUND 400C (750F). WILL PRODUCE IRRITATING PHOSPHORIC OXIDE FUMES UNDER FIRE CONDITIONS.

SECTION 5 – PHYSICAL HAZARDS (REACTIVITY DATA)

Stability: Unstable ☐ / Stable ☒ — Conditions to Avoid: AVOID CONTACT WITH STRONG ALKALIES

Incompatability (Materials to Avoid): REACTION WITH METALS WILL LIBERATE HYDROGEN GAS. (EXTREMELY FLAMMABLE!)

Hazardous Decomposition Products: PHOSPHORIC ACID FUMES. (STRONG IRRITANT)

Hazardous Polymerization: May Occur ☐ / Will Not Occur ☒ — Conditions to Avoid: AVOID CONTACT WITH STRONG ALKALIES. (WILL PRODUCE VIOLENT ACID/BASE NEUTRALIZATION REACTION.)

SECTION 6 – HEALTH HAZARDS

1 Acute: STRONG IRRITANT - SLIGHTLY TOXIC

2 Chronic: SLIGHTLY TOXIC - CAUSES BURNS TO EXPOSED TISSUI

Signs and Symptoms of Exposure: LIQUID IS CORROSIVE TO EYES AND SKIN, MIST PRODUCES IRRITATION TO EYES, THROAT, AND LUNGS.

Medical Conditions Generally Aggravated by Exposure: EMPHYSEMA, ASTHMA OR OTHER CONDITIONS RESULTING IN DECREASED RESPIRATORY FUNCTION.

Chemical Lasted as Carcinogen or Potential Carcinogen:

	Yes	No
National Toxicology Program	☐	☒
I A R C Monographs	☐	☒
OSHA	☐	☒

Emergency and First Aid Procedures: CALL A PHYSICIAN IMMEDIATELY, INGESTION - GIVE LARGE QUANTITIES OF WATER. " DO NOT INDUCE VOMITING" SKIN AND EYES - FLUSH WITH WATER

ROUTES OF ENTRY

1 Inhalation: YES

2 Eyes: YES

3 Skin: YES

4 Ingestion: PRIMARY HAZARD

SECTION 7 – SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage: USE GOGGLES AND/OR FACE SHIELDS, RUBBER APRONS, GLOVES AND BOOTS WHERE SPLASHING OR LIQUID CONTACT MAY BE EXPECTED.

Other Precautions: AIRBORNE MIST - USE NIOSH/MSHA ACID GAS RESPIRATOR WITH FULL FACE PIECE. KEEP STORED IN SUITABLE CONTAINER.

Steps to be Taken in Case Material is Released or Spilled: WEAR SUITABLE PROTECTIVE CLOTHING. EYE PROTECTION, AND RESPIRATOR. NEUTRALIZE WITH SODA ASH AND FLUSH THE AREA WITH LARGE AMOUNTS OF WATER.

Waste Disposal Methods (Consult federal, state, and local regulations): NEUTRALIZE WITH SODA ASH OR LIME AND DISCHARGE INTO A TREATMENT SYSTEM IN ACCORDANCE WITH LOCAL REGULATIONS.

SECTION 8 – SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection (Specify Type): NIOSH/MSHA ACID GAS WITH FULL FACE PIECE.

Ventilation: Local Exhaust: ADEQUATE TO MEET PEL; Mechanical (General): N/A; Special: N/A; Other: N/A

Protective Gloves: ACID RESISTANT

Eye Protection: CHEMICAL GOGGLES

Other Protective Clothing or Equipment: RUBBER APRON AND BOOTS AS NECCESSARY.

Work/Hygienic Practices: STORE AND HANDLE AS STRONG ACID. WASH BEFORE EATING OR DRINKING.

IMPORTANT
Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

Get the most comprehensive
MSDS/HazCom program on the market!

Material Safety Data Sheet

SECTION I - Material Identity
SECTION II - Manufacturer's Information
SECTION III - Physical/Chemical Characteristics
SECTION IV - Fire and Explosion Hazard Data
SECTION V - Reactivity Data
SECTION VI - Health Hazard Data
SECTION VII - Precautions for Safe Handling and Use
SECTION VIII - Control Measures
SECTION IX - Label Data
SECTION X - Transportation Data
SECTION XI - Site Specific/Reporting Information
SECTION XII - Ingredients/Identity Information

SECTION I - Material Identity

Item Name	
Part Number/Trade Name	300016/300064/300055 PENCOOL 3000 CUTTING FLUID
National Stock Number	6850010854717
CAGE Code	OWT79
Part Number Indicator	A
MSDS Number	185790
HAZ Code	B

SECTION II - Manufacturer's Information

Manufacturer Name	PENRAY COMPANIES
Street	440 DENNIXTON COURT
City	WHEELING
State	IL
Country	US
Zip Code	60090
Emergency Phone	800 424-9300 CHEMTREC
Information Phone	847 459-5000

MSDS Preparer's Information

Date MSDS Prepared/Revised	15MAR99
Active Indicator	N

Alternate Vendors

SECTION III - Physical/Chemical Characteristics

Hazard Storage Compatibility Code	NR
NRC License Number	NR
Net Propellant Weight (Ammo)	NR
Appearance/Odor	NO ODOR, RED LIQUID
Boiling Point	212-215F
Melting Point	< 32 F
Vapor Pressure	NR
Vapor Density	NR
Specific Gravity	1.0956
Decomposition Temperature	NR
Evaporation Rate	NR
Solubility in Water	COMPLETELY
Percent Volatiles by Volume	NR
Chemical pH	12.0
Corrosion Rate	NR
Container Pressure Code	1
Temperature Code	4
Product State Code	L

SECTION IV - Fire and Explosion Hazard Data

Flash Point Method	UNK
Lower Explosion Limit	NG
Upper Explosion Limit	NG
Extinguishing Media	CARBON DIOXIDE, DRY CHEM, FOAM
Special Fire Fighting Procedures	WEAR SCBA AND FULL PROTECTIVE CLOTHING
Unusual Fire/Explosion Hazards	NONE KNOWN

SECTION V - Reactivity Data

Stability	YES
Stability Conditions to Avoid	EXCESSIVE HEAT AND OPEN FLAMES
Materials to Avoid	STRONG OXIDIZING AGENTS

Hazardous Decomposition Products	NR
Hazardous Polymerization	NO
Polymerization Conditions to Avoid	WILL NOT OCCUR
LD50 - LD50 Mixture	NR

SECTION VI - Health Hazard Data

Route of Entry: Skin	YES
Route of Entry: Ingestion	YES
Route of Entry: Inhalation	YES
Health Hazards - Acute and Chronic	[EYES] IRRITATION [SKIN] IRRITATION, DERMITITIS [INHAL] NON-VOLATILE, INHALATION HAZARD UNLIKELY [INGEST] GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA
Carcinogenity: NTP	NO
Carcinogenity: IARC	NO
Carcinogenity: OSHA	NO
Explanation of Carcinogenity	NOT CONSIDERED A CARCINOGEN
Symptoms of Overexposure	[EYES] IRRITATION [SKIN] IRRITATION, DERMITITIS [INHAL] NON-VOLATILE, INHALATION HAZARD UNLIKELY [INGEST] GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA
Medical Cond. Aggrevated by Exposure	NR
Emergency/First Aid Procedures	[EYES] FLUSH W/ WATER FOR 15 MINUTES [SKIN] WASH W/ SOAP AND WATER, REMOVE CONTAMINATED CLOTHING, LAUNDER BEFORE REUSE [INHAL] REMOVE TO FRESH AIR [INGEST] INDUCE VOMITING, NEVER GIVE ANYTHING TO AN UNCONSCIOUS PERSON

SECTION VII - Precautions for Safe Handling and Use

Steps if Material Released/Spilled	CLEAN-UP PERSONNEL SHOULD WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT. CLEAN WITH INERT ABSORBANT AND PLACE IN RECOVERY DRUMS FOR DISPOSAL
Neutralizing Agent	NR
Waste Disposal Method	DISPOSE IAW FEDERAL, STATE, LOCAL REGS
Handling and Storage Precautions	STORE IN CLEAN, DRY LOCATIONS AWAY FROM EXCESSIVE HEAT
Other Precautions	DO NOT GET INTO EYES, ON SKIN,

	OR ON CLOTHING

SECTION VIII - Control Measures

Respiratory Protection	NONE REQUIRED
Ventilation	GENERAL VENTILATION. MATERIAL NON-VOLATILE
Protective Gloves	CHEMICAL RESISTANT
Eye Protection	CHEM GOGGLES
Other Protective Equipment	NR
Work Hygenic Practices	WASH HANDS AFTER USE
Supplemental Health/Safety Data	NR

SECTION IX - Label Data

Protect Eye	YES
Protect Skin	YES
Protect Respiratory	YES
Chronic Indicator	NO
Contact Code	UNKNOWN
Fire Code	UNKNOWN
Health Code	UNKNOWN
React Code	UNKNOWN
Specific Hazard and Precaution	NO TARGET ORGANS LISTED

SECTION X - Transportation Data

Container Quantity	1
Unit of Measure	PT

SECTION XI - Site Specific/Reporting Information

Volatile Organic Compounds (P/G)	0
Volatile Organic Compounds (G/L)	0

SECTION XII - Ingredients/Identity Information

Ingredient #	01
Ingredient Name	SODIUM HYDROXIDE
CAS Number	1310732
Proprietary	NO
Percent	1

OSHA PEL	1 MG/M3
ACGIH TLV	1 MG/M3
Ingredient #	02
Ingredient Name	SODIUM NITRITE
CAS Number	7631994
Proprietary	NO
Percent	0
Ingredient #	03
Ingredient Name	SODIUM NITRITE (ESTIMATE%)
CAS Number	7632000
Proprietary	NO
Percent	5
Ingredient #	04
Ingredient Name	WATER
CAS Number	7732185
Proprietary	NO
Percent	0
Ingredient #	05
Ingredient Name	SODIUM TETRABORATE
CAS Number	1330434
Percent	0

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1301 E. 9th Street, #700
Cleveland OH 44114
(800) 726-9626

Barnes Distribution

Material Safety Data Sheet

MSDS Form No. : MSDS8889474
Item No. : C87370, C8889474

**** MATERIAL SAFETY DATA SHEET ****

PERMATEX(R) BLACK SILICONE ADHESIVE SEALANT

Part # MSDS8889474

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: PERMATEX(R) BLACK SILICONE ADHESIVE SEALANT
Product CAS: (none)
Product Code:
Synonyms: 87370; 8889474; C87370; C8889474; PERMATEX(R) BLACK SILICONE ADHESIVE SEALANT
Company Identification:
Name: LOCTITE CORPORATION
Address: 4450 CRANWOOD PKY.
Address:
City: CLEVELAND State: OH Zip: 44128
For information, call: (203) 571-5100
Emergency Number:
Emergency Agency:
Number:
MSDS Creation Date: 1/2/2006
Supersedes Date: 1/1/2003
Miscellaneous:
PRODUCT/TRADE NAME(S): 8889474

CAS #: N/A

CHEMICAL NAME: N/A

BRIEF DESCRIPTION: PRODUCT TYPE: RTV SILICONE.

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

Chemical Name	CAS	MIN	MAX
ACETIC ACID	64-19-7	5	5
CARBON BLACK	1333-86-4	1	1
ETHYLTRIACETOXYSILANE	17689-77-9	5	5
METHYLTRIACETOXYSILANE	4253-34-3	5	5
POLY (DIMETHYLSILOXANE), DIMETHYL	63148-62-9	90	90
SILICA, AMORPHOUS TREATED	112945-52-5	10	10

Miscellaneous:
COMPOSITION:
ACETIC ACID - WHEN THIS PRODUCT IS EXPOSURE TO MOISTURE, 3-5% ACETIC ACID MAY BE FORMED.

TOXICITY:
EYE AND SKIN IRRITANT. ORAL LD50 MORE THAN 10,000 MG/KG

EXPOSURE LIMITS (TWA):

INGREDIENT	ACGIH TLV	OSHA PEL	OTHER
SILICA, AMORPHOUS TREATED	10 MG/M3 TWA	6 MG/M3 TWA	NONE
CARBON BLACK	3.5 MG/M3 TWA	3.5 MG/M3 TWA	5 PPM
ACETIC ACID	10 PPM TWA 25 MG/M3	10 PPM TWA 25 MG/M3	NONE

EXPOSURE LIMITS (STEL):

INGREDIENT	ACGIH TLV	OSHA PEL
ACETIC ACID	15 PPM	NONE

37 MG/M3

INGREDIENTS FOR WHICH NO EXPOSURE LIMITS HAVE BEEN ESTABLISHED ARE NOT LISTED ABOVE.

Lbs of VOC per Gallon Coating (minus water): 0.40125
Coating Density (lbs/gal): 0
Solvent Density (lbs/gal): 0
Percent Solvent (volume): 0
Percent Solids (volume): 0
Percent Water (volume): 0

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

NFPA: Health: 2 Fire: 1 Reactivity: 1 Other:
HMIS: Health: 2 Fire: 1 Reactivity: 1 Special Protection:

POTENTIAL HEALTH EFFECTS

Target Organs:

Eye:
SIGNS AND SYMPTOMS: ACETIC ACID PRODUCED DURING CURE IRRITATES EYES. EXISTING

CONDITIONS
AGGRAVATED BY EXPOSURE: METHYLTRIACETOXYSILANE: EYE DISORDERS.

Skin:
EXISTING CONDITIONS AGGRAVATED BY EXPOSURE: METHYLTRIACETOXYSILANE: SKIN DISORDERS.

Ingestion:

Inhalation:
SIGNS AND SYMPTOMS: ACETIC ACID PRODUCED DURING CURE IRRITATES NOSE AND THROAT. EXISTING
CONDITIONS AGGRAVATED BY EXPOSURE: CARBON BLACK - RESPIRATORY DISORDERS. METHYLTRIACETOXYSILANE - PULMONARY DISORDERS.

Miscellaneous:

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

Eye:
FLUSH AT LEAST 15 MINUTES WITH WATER. OBTAIN MEDICAL ATTENTION.

Skin:
WIPE OFF PASTE WITH PAPER TOWEL OR CLOTH. WASH EXPOSED AREA WITH SOAP AND WATER. FLUSH AT
LEAST 15 MINUTES WITH WATER. OBTAIN MEDICAL ATTENTION.

Ingestion:
DO NOT INDUCE VOMITING. KEEP INDIVIDUAL CALM. OBTAIN MEDICAL ATTENTION.

Inhalation:
REMOVE TO FRESH AIR. TREAT SYMPTOMATICALLY.

Notes to Physician:

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

Unusual Fire and Explosion Hazards:
NONE. COMPRESSED GASES: NONE. PRESSURE AT ROOM TEMP: DOES NOT APPLY.

Special Fire Fighting Procedures:
ACETIC ACID, FORMALDEHYDE, SILICA FUME.

Extinguishing Media:
CARBON DIOXIDE, FOAM, DRY CHEMICAL.

Flash Point:
MORE THAN 200 F. METHOD: TAG CLOSED CUP

Flammable Limits:
Lower Limit:
(LEL): ACETIC ACID 4%
Upper Limit:
(UEL): ACETIC ACID: 19.9% AT 200 F

AutoIgnition Temperature:
N.A.

General Information:
FLAMMABLE LIMITS: NO DATA

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

Disposal:
CURED RUBBER CAN BE INCINERATED. FOLLOW EPA LOCAL REGULATIONS.

Spills/Leaks:
WIPE OR SCRAPE UP SPILLED MATERIAL. MAINTAIN GOOD VENTILATION FOR LARGE SPILLS. PLACE SCRAP
MATERIAL IN A WELL VENTILATED PLACE AND ALLOW TO CURE TO RUBBER.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Storage:
STORE IN A DRY AREA BELOW 90 F. KEEP CONTAINER CLOSED WHEN NOT IN USE. (CONTACT LOCTITE
CUSTOMER SERVICE 1-800-243-4874 FOR SHELF LIFE INFORMATION). HANDLING: AVOID EYE OR SKIN
CONTACT. AVOID BREATHING VAPOR.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
LOCAL EXHAUST: PROVIDE LOCAL VENTILATION FOR PROLONGED USE IN CONFINED AREA.

Eyes:
SAFETY GLASSES OR GOGGLES.

Skin:
PROTECTIVE GLOVES: RUBBER OR PLASTIC GLOVES.

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Clothing:

Respirators:

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

Appearance/Odor:
BLACK PASTE; ACETIC ACID.

pH: DOES NOT APPLY
Vapor Pressure: (MM HG.): LESS THAN 5 MM AT 70 F
Vapor Density: (AIR = 1): NOT AVAILABLE
Evaporation Rate: NOT AVAILABLE
Viscosity: N.A.
Boiling Point: NOT APPLICABLE, POLYMERIC MATERIAL
Freezing/Melting Point: N.A.
Decomposition Temperature: N.A.
Solubility: IN WATER: POLYMERIZED
Specific Gravity: 1.07
Molecular Formula: N.A.
Molecular Weight: N.A.
Miscellaneous:
% VOLATILE / VOLUME: NO DATA

VOLATILE ORGANIC COMPOUND (EPA METHOD 24): 4.5%; 48.15 G/L.

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

Chemical Stability:
YES

Conditions to Avoid:

Incompatibilities with Other Materials:
POLYMERIZED BY CONTACT WITH MOISTURE. ACETIC ACID LIBERATED.

Hazardous Decomposition Products:
NON-THERMAL: NONE

Hazardous Polymerization:
MAY OCCUR: NO

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

Toxicological Information:
LITERATURE REFERENCED

TARGET ORGAN AND OTHER HEALTH EFFECTS:
POLY(DIMETHYLSILOXANE), DIMETHYL: IRRITANT. CARCINOGEN - NO.

SILICA, AMORPHOUS TREATED: NUISANCE DUST. CARCINOGEN - NTP, OSHA - NO. IARC - N/A.

ETHYLTRIACETOXYSILANE: NO DATA. CARCINOGEN - NO.

METHYLTRIACETOXYSILANE: NO DATA. CARCINOGEN - NO.

CARBON BLACK: RESPIRATORY SYSTEM. CARCINOGEN - NTP, OSHA - NO. IARC - N/A

ACETIC ACID: CORROSIVE; EYES; GASTROINTESTINAL; IMMUNE SYSTEM; IRRITANT. CARCINOGEN - NO.

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

Ecological Information:

**** SECTION 13 - OTHER PRECAUTIONS ****

Other Precautions:

Work/Hygienic Practices:

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

Transportation Information:
CATEGORY: UNRESTRICTED

SHIPPING REGULATIONS:
DOT (49 CFR 172)
DOMESTIC GROUND TRANSPORT
PROPER SHIPPING NAME: UNRESTRICTED
HAZARD CLASS OR DIVISION: UNRESTRICTED
IDENTIFCATION NUMBER: NONE
MARINE POLLUTANT: NONE

IATA
PROPER SHIPPING NAME: UNRESTRICTED
CLASS OR DIVISION: UNRESTRICTED
UN OR ID NUMBER: NONE

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Label Information:

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

Regulatory Information:

****** SECTION 16 - ADDITIONAL INFORMATION ******

Additional Information:

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DOD Hazardous Materials Information System
DoD 6050.5-L
AS OF July 1998

FSC: 8040
NIIN: 00N021891
Manufacturer's CAGE: 11111
Part No. Indicator: A
Part Number/Trade Name: POLYPOXY WHITE AND COLORS PART A, 4170

==========

General Information

==========

Item Name:
Company's Name: PETTIT PAINT CO INC
Company's Street: 36 PINE ST
Company's P. O. Box:
Company's City: ROCKAWAY
Company's State: NJ
Company's Country: US
Company's Zip Code: 07866
Company's Emerg Ph #: 800-548-0489
Company's Info Ph #: 201-625-3100
Distributor/Vendor # 1:
Distributor/Vendor # 1 Cage:
Distributor/Vendor # 2:
Distributor/Vendor # 2 Cage:
Distributor/Vendor # 3:
Distributor/Vendor # 3 Cage:
Distributor/Vendor # 4:
Distributor/Vendor # 4 Cage:
Safety Data Action Code:
Safety Focal Point: N
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 001
Status: SMJ
Date MSDS Prepared: 16MAY89
Safety Data Review Date: 08NOV91
Supply Item Manager:
MSDS Preparer's Name:
Preparer's Company:
Preparer's St Or P. O. Box:
Preparer's City:
Preparer's State:
Preparer's Zip Code:
Other MSDS Number:
MSDS Serial Number: BLMNW
Specification Number:
Spec Type, Grade, Class:
Hazard Characteristic Code: F3
Unit Of Issue:
Unit Of Issue Container Qty:
Type Of Container:
Net Unit Weight:

Report for NIIN: 00N021891

NRC/State License Number:
Net Explosive Weight:
Net Propellant Weight-Ammo:
Coast Guard Ammunition Code:

==========

Ingredients/Identity Information

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==========
Proprietary: NO
Ingredient: XYLENES (O-,M-,P- ISOMERS) (SARA III)
Ingredient Sequence Number: 01
Percent: 8-17
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: ZE2100000
CAS Number: 1330-20-7
OSHA PEL: 100 PPM/150 STEL
ACGIH TLV: 100 PPM/150STEL;9192
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: METHYL ISOBUTYL KETONE (SARA III)
Ingredient Sequence Number: 02
Percent: 14-20
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: SA9275000
CAS Number: 108-10-1
OSHA PEL: 100 PPM/75 STEL
ACGIH TLV: 50 PPM/75 STEL; 9293
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: RUTILE; (TITANIUM DIOXIDE). LD50: ORL(RAT) >9500 MG/KG.
Ingredient Sequence Number: 03
Percent: 0-45
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: VM2940000
CAS Number: 1317-80-2
OSHA PEL: 15 MG/M3 TDUST
ACGIH TLV: 10 MG/M3 TDUST
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CARBON BLACK
Ingredient Sequence Number: 04
Percent: 0-4
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: FF5800000
CAS Number: 1333-86-4
OSHA PEL: 3.5 MG/M3
ACGIH TLV: 3.5 MG/M3; 9192

Report for NIIN: 00N021891

Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CADMIUM SULFOSELENIDE. LD50: ORL(RAT) >10,000 MG/KG.
Ingredient Sequence Number: 05
Percent: 0-15
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 1003454CS
CAS Number: 58339-34-7
OSHA PEL: NOT APPLICABLE

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ACGIH TLV: NOT APPLICABLE
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: BARIUM SULFATE
Ingredient Sequence Number: 06
Percent: 0-10
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: CR0600000
CAS Number: 7727-43-7
OSHA PEL: 15 MG/M3 TDUST
ACGIH TLV: 10 MG/M3 TDUST; 9293
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CALCIUM CARBONATE (MARBLE) (LIMESTONE)
Ingredient Sequence Number: 07
Percent: 0-20
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: EV9580000
CAS Number: 1317-65-3
OSHA PEL: 15 MG/M3 TDUST
ACGIH TLV: 10 MG/M3 TDUST; 9192
Other Recommended Limit: N/K
==========

Physical/Chemical Characteristics

==========
Appearance And Odor: NONE SPECIFIED BY MANUFACTURER.
Boiling Point: 241F,116C
Melting Point: N/K
Vapor Pressure (MM Hg/70 F): ING 1 & 2
Vapor Density (Air=1): HVR/AIR
Specific Gravity: N/K
Decomposition Temperature: N/K
Evaporation Rate And Ref: SLOWER THAN ETHER
Solubility In Water: N/K
Percent Volatiles By Volume: 45-50
Viscosity:
pH: N/K
Radioactivity:

Report for NIIN: 00N021891

Form (Radioactive Matl):
Magnetism (Milligauss): N/P
Corrosion Rate (IPY): N/K
Autoignition Temperature:
==========

Fire and Explosion Hazard Data

==========
Flash Point: 70.0F,21.1C
Flash Point Method: CC
Lower Explosive Limit: 1%
Upper Explosive Limit: N/K
Extinguishing Media: CO2, DRY CHEMICAL, WATER FOG.
Special Fire Fighting Proc: WEAR NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N).
Unusual Fire And Expl Hazrds: CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED W/WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH

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COULD RESULT IN CONTAINER RUPTURE.

Reactivity Data

Stability: YES
Cond To Avoid (Stability): HEAT, SPARK AND OPEN FLAME.
Materials To Avoid: STRONG OXIDIZING AGENTS.
Hazardous Decomp Products: CO AND OTHER ORGANIC COMPOUNDS.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT

Health Hazard Data

LD50-LC50 Mixture: SEE INGREDIENTS
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: CAN LEAD TO CENTRAL NERVOUS SYSTEM DEPRESSION PRODUCING SUCH EFFECTS AS HEADACHE, DIZZINESS, AND LOSS OF CONSCIOUSNESS. EYE: MAY BE IRRITATING. SKIN: CAN BE IRRITATING & CAUSE DERMATITIS. INGEST: MAY RESULT IN VOMITING. BRTHG IN ANY VOMITUS INTO LUNGS CAN CAUSE CHEMICAL PNEUMONITIS.
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NOT RELEVANT
Signs/Symptoms Of Overexp: SEE HEALTH HAZARDS.
Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.
Emergency/First Aid Proc: EYES: FLUSH W/WATER FOR A MINIMUM OF 15 MINUTES. SKIN: WASH W/SOAP & WATER. INHAL: GIVE FRESH AIR OR OXYGEN. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. INGEST: DO NOT INDUCE VOMITING. KEEP HEAD BELOW HIPS IF VOMITING OCCURS.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: ELIMINATE ALL IGNITION SOURCES. TAKE UP W/AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS. SEAL TIGHTLY.

Report for NIIN: 00N021891

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
Waste Disposal Method: PLACE IN A DISPOSAL FACILITY APPROVED UNDER RCRA REGULATIONS FOR HAZARDOUS WASTE. LABEL PROPERLY. DISPOSAL MUST BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS (FP N).
Precautions-Handling/Storing: KEEP CONTRS TIGHTLY CLOSED. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES. STORE AWAY FROM STRONG OXIDIZING AGENTS IN A COOL, DRY PLACE.
Other Precautions: MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. THIS PRODUCT CONTAINS CHEMICALS UNDER SARA TITLE III SECTION 313.

Control Measures

Respiratory Protection: IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS, USE A NIOSH/MSHA APPROVED RESPIRATOR.
Ventilation: USE PROPER VENTILATION TO KEEP VAPOR CONCENTRATION BELOW 100 PPM.
Protective Gloves: IMPERVIOUS GLOVES.
Eye Protection: CHEMICAL WORKERS GOGGLES (FP N).
Other Protective Equipment: NONE.
Work Hygienic Practices: WASH W/SOAP & WATER BEFORE EATING, DRINKING,

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SMOKING OR USING TOILET FACILITIES.
Suppl. Safety & Health Data: NONE SPECIFIED BY MANUFACTURER.

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Transportation Data

==========

Transportation Action Code:
Transportation Focal Point: N
Trans Data Review Date: 92009
DOT PSN Code: GJJ
DOT Symbol:
DOT Proper Shipping Name: FLAMMABLE LIQUIDS, N.O.S.
DOT Class: 3
DOT ID Number: UN1993
DOT Pack Group: II
DOT Label: FLAMMABLE LIQUID
DOT/DoD Exemption Number:
IMO PSN Code: HIN
IMO Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. o
IMO Regulations Page Number: 3230
IMO UN Number: 1993
IMO UN Class: 3.2
IMO Subsidiary Risk Label: -
IATA PSN Code: MBV
IATA UN ID Number: 1993
IATA Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. *
IATA UN Class: 3
IATA Subsidiary Risk Class:
IATA Label: FLAMMABLE LIQUID
AFI PSN Code: MBV
AFI Symbols:
AFI Prop. Shipping Name: FLAMMABLE LIQUIDS, N.O.S.
AFI Class: 3

Report for NIIN: 00N021891

AFI ID Number: UN1993
AFI Pack Group: II
AFI Label:
AFI Special Prov:
AFI Basic Pac Ref: 7-7
MMAC Code:
N.O.S. Shipping Name:
Additional Trans Data:

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Disposal Data

==========

Disposal Data Action Code:
Disposal Data Focal Point:
Disposal Data Review Date:
Rec # For This Disp Entry:
Tot Disp Entries Per NSN:
Landfill Ban Item:
Disposal Supplemental Data:
1st EPA Haz Wst Code New:
1st EPA Haz Wst Name New:
1st EPA Haz Wst Char New:
1st EPA Acute Hazard New:
2nd EPA Haz Wst Code New:
2nd EPA Haz Wst Name New:
2nd EPA Haz Wst Char New:
2nd EPA Acute Hazard New:

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3rd EPA Haz Wst Code New:
3rd EPA Haz Wst Name New:
3rd EPA Haz Wst Char New:
3rd EPA Acute Hazard New:

==========

Label Data

==========

Label Required: YES
Technical Review Date: 08NOV91
Label Date: 08NOV91
MFR Label Number:
Label Status: G
Common Name: POLYPOXY WHITE AND COLORS PART A, 4170
Chronic Hazard: NO
Signal Word: DANGER!
Acute Health Hazard-None:
Acute Health Hazard-Slight: X
Acute Health Hazard-Moderate:
Acute Health Hazard-Severe:
Contact Hazard-None:
Contact Hazard-Slight: X
Contact Hazard-Moderate:
Contact Hazard-Severe:
Fire Hazard-None:
Fire Hazard-Slight:
Fire Hazard-Moderate:
Fire Hazard-Severe: X

Report for NIIN: 00N021891

Reactivity Hazard-None: X
Reactivity Hazard-Slight:
Reactivity Hazard-Moderate:
Reactivity Hazard-Severe:
Special Hazard Precautions: HIGHLY FLAMMABLE.ACUTE: INHALATION CAN LEAD TO CENTRAL NERVOUS SYSTEM DEPRESSION PRODUCING SUCH EFFECTS AS HEADACHE, DIZZINESS, AND LOSS OF CONSCIOUSNESS. SWALLOWING MAY RESULT IN VOMITING. MAY CAUSE EYE IRRITATION. CAN BE IRRITATING TO SKIN AND CAUSE DERMATITIS. CHRONIC: NONE LISTED BY MANUFACTURER.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: PETTIT PAINT CO INC
Label Street: 36 PINE ST
Label P.O. Box:
Label City: ROCKAWAY
Label State: NJ
Label Zip Code: 07866
Label Country: US
Label Emergency Number: 800-548-0489
Year Procured:

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PROGRESS REPORT - FIRST QUARTER 2003

BRIX MARITIME COMPANY
PORTLAND, OREGON

Prepared for

Brix Maritime Company

Prepared by

Anchor Environmental, L.L.C.
6650 SW Redwood Lane, Suite 110
Portland, OR 97224

April 15, 2003

ANCHOR
ENVIRONMENTAL, L.L.C.

Table of Contents

1 INTRODUCTION.....1

2 ACTIONS TAKEN DURING THE FIRST QUARTER.....1

3 ACTIONS SCHEDULED FOR THE SECOND QUARTER.....1

4 DATA GENERATED IN THE PREVIOUS QUARTER.....1
4.1 Well Installation..... 1
4.2 Well Development..... 2
4.3 Hydrology Data and Potentiometric Surface Map..... 3
4.4 Sampling and Analytical Testing..... 3
4.4.1 Soil..... 3
4.4.1.1 Soil Sampling Results..... 4
4.4.2 Groundwater..... 4
4.5 Data Validation..... 6

5 SUMMARIES OF PROBLEMS AND ACTIONS TAKEN TO RESOLVE PROBLEMS.....6

List of Tables

Table 1 – Water Level Measurements
Table 2 – Total Petroleum Hydrocarbons
Table 3 – Polynuclear Aromatic Hydrocarbons
Table 4 – Volatile Organic Compounds
Table 5 – Lead

List of Figures

Figure 1 – Site Location Map
Figure 2 – Well Location and Potentiometric Surface Map

List of Appendices

Appendix A – Well Logs
Appendix B – Laboratory Reports
Appendix C – Field Data Records
Appendix D – Data Validation Review

Confidential Business Information 00035683

1 INTRODUCTION

This Progress Report was prepared in accordance with Section II(H) of the Oregon Department of Environmental Quality (DEQ) Voluntary Agreement for Remedial Investigation and Source Control Measures (ECSI 2464 No. LQDVC-NWR-02-03). This report covers the work completed during the quarter ending March 31, 2003 for the Brix Maritime site in Portland, Oregon (Figure 1) and is divided into the following subject areas:

- Actions Taken During the First Quarter
- Actions Scheduled for the Second Quarter
- Data Generated in the First Quarter
- Summaries of Problems and Actions Taken To Resolve Problems

2 ACTIONS TAKEN DURING THE FIRST QUARTER

- Anchor submitted the fourth quarter 2002 progress report to DEQ on January 10, 2003.
- Monitoring wells MW-1, MW2, and MW-5 were installed on February 11, 2003.
- Monitoring wells MW-1, MW2, and MW-5 were developed on February 25, 2003.
- Monitoring wells MW-1, MW2, and MW-5 were sampled on February 28, 2003.
- Water levels were measured in monitoring wells MW-1 through MW-5 and at the river staff gauge on February 28, and March 31, 2003.
- Monitoring wells MW-1 through MW-5 and the river staff gauge were surveyed vertically and horizontally on March 19, 2003.

3 ACTIONS SCHEDULED FOR THE SECOND QUARTER

- Water levels will be measured in all onsite monitoring wells and at the river staff gauge in April, May, and June 2003.
- Anchor will prepare and submit first quarter progress report to DEQ.

4 DATA GENERATED IN THE PREVIOUS QUARTER

4.1 Well Installation

Monitoring wells MW-1, MW-2, and MW-5 were installed on February 11, 2003. The locations of the monitoring wells are shown in Figure 2. Well logs are provided in Appendix A. The well logs show lithologic descriptions, well construction details, soil sample collection depth, and photo-ionization detector (PID) readings. Monitoring well

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installation methods and materials were consistent with the monitoring plan submitted by Hahn and Associates on March 18, 2002, with modifications agreed to with DEQ in a letter dated July 12, 2002.

At location MW-1, the borehole was advanced to a total depth of 22.5 feet below ground surface (bgs). The split spoon sampler was advanced to 24.0 feet. The contact of the fill with the pre-fill soil surface was estimated to be at approximately 22 feet bgs. Monitoring well MW-1 was installed with the screen interval at 7.1 to 22.1 feet bgs.

At location MW-2, the borehole was advanced to a total depth of 25 feet bgs. The split spoon sampler was advanced to 26.5 feet. The contact of the fill with the pre-fill soil surface was estimated to be at approximately 25 feet bgs. Monitoring well MW-2 was installed with the screen interval at 9.6 to 24.6 feet bgs.

At location MW-5, the borehole was advanced to a total depth of 22.5 feet bgs. The split spoon sampler was advanced to 24.0 feet. The contact of the fill with the pre-fill soil surface was observed at approximately 22.7 feet bgs. Monitoring well MW-5 was installed with the screen interval at 7.1 to 22.1 feet bgs.

4.2 Well Development

Monitoring wells MW-1, MW-2, and MW-5 were developed on February 25, 2003. Development consisted of surging and bailing with disposable bailers. Approximately 20 casing volumes were purged from each well during development; however, the purge water was not clear of turbidity from suspended sediment by the end of development. The groundwater turbidity is from fine grained sands and silts in the soil outside the well screen. This type of fine grained soil can migrate through the well screen into the borehole during downhole purging and sampling activities. Plans have been made to conduct additional screen development prior to the next sampling event. Copies of the well development forms are in Appendix C.

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4.3 Hydrology Data and Potentiometric Surface Map

Water levels were measured in all onsite monitoring wells and at the river staff gauge on February 28 and March 31, 2003. Water levels and groundwater elevations based on the 1988 North American Vertical Datum (NAVD 88) are presented in Table 1.

A groundwater potentiometric surface map, using the February 28, 2003 measurements is shown on Figure 2. As expected, the contour pattern indicates that shallow groundwater flows roughly west to east from the upland portion of the site to the river.

During the February and March water level measurements, the river bank was examined for petroleum hydrocarbon seeps or sheens. No seeps or sheens were observed.

4.4 Sampling and Analytical Testing

4.4.1 Soil

Split spoon samples were collected at 5-foot intervals during boring advancement. At 20 feet bgs the split spoon sampling interval was increased to 2.5-feet to better define the sand/silt interface.

A soil sample obtained from the MW-1 borehole at the 15 to 16.5 feet bgs interval was submitted for laboratory analysis based on an elevated PID reading of 1,219 parts per million (ppm). A soil sample obtained from the MW-2 borehole at the 10.0 to 11.5 feet bgs interval was submitted for laboratory analysis based on a color change from dark brown to gray. Three soil samples obtained from the MW-5 borehole at depth intervals of 5.0 to 6.5, 15.0 to 16.5, and 22.5 to 24 feet bgs were submitted for laboratory analysis. The MW-5 soil sample intervals were chosen for laboratory analysis based on a petroleum hydrocarbon-like odor and to better define the vertical extent of soil contamination.

All submitted soil samples were analyzed for volatile organic compounds (VOCs) by EPA method 8260B; total petroleum hydrocarbons (TPH) by method NWTPH-Dx; polycyclic aromatic hydrocarbons (PAHs) by EPA method 8270C-SIM; and total lead by EPA method 7241.

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4.4.1.1 Soil Sampling Results

The soil quality data are presented in Tables 2 through 5 and summarized below. Laboratory reports and sample chain of custody documentation are in Appendix B. The laboratory data validation report is in Appendix D.

TPHs. TPH analytical results are shown in Table 2. TPHs were not detected in the two soil samples from MW-5 above the water table. TPH in the diesel range was detected in MW-1 (15-16.5) and MW-2 (10-11.5). TPH was detected in both the diesel range and the residual range (lube oil range) in MW-5 (22.5-24).

PAHs. PAH analytical results are presented in Table 3. PAHs were detected in all soil samples tested. Total LPAH concentrations ranged from 14.7 to 46,475 microgram per kilogram (µg/kg), with the highest concentration at MW-1 (15-16.5). Total HPAH concentrations ranged from 239 to 9,310 (µg/kg), with the highest concentration at MW-5 (22.5 to 24).

VOCs. VOC analytical results are presented in Table 4. Table 4 shows that a total of eleven VOCs (acetone, ethylbenzene, m,p-xylenes, o-xylene, isopropylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, 4-isopropyltoluene, n-butylbenzene, and naphthalene) were detected in MW-1 (15-16.5) and MW-5 (22.5-24). Note that all VOCs detected were not present in both samples. These VOCs are primarily gasoline components and gasoline breakdown products. VOCs were not detected in the soil sample from MW-2 or the two soil samples above the water table at MW-5.

Total Lead. Total lead analytical results are presented in Table 5. Total lead concentrations ranged from 4,000 to 32,500 µg/kg.

4.4.2 Groundwater

Groundwater samples were collected on February 28, 2003. Copies of the field sampling data sheets are in Appendix C. Monitoring wells MW-1, -2, -3, and -5 were purged and sampled using a new disposable bailer at each location. MW-4 was purged and sampled

Confidential Business Information 00035687

with a peristaltic pump with the exception of the VOC samples, which were collected with a disposable bailer.

Each well is checked for the presence of free petroleum product (LNAPL) during the monthly water level measurements. Table 1 shows that the only well with detectable LNAPL has been MW-3. The LNAPL thickness at MW-3 has ranged from non-detect to 0.19 ft. There was no detectable LNAPL at MW-3 during the March 31, 2003 measurement. The LNAPL at MW-3 was sampled on September 6, 2002. Lab testing showed that the sample constituents were consistent with a lube oil fingerprint. The sampling results are presented in the Third Quarter 2002 Progress Report (Anchor, October 10, 2002).

Groundwater samples were analyzed for VOCs by EPA method 8260B; PAHs by EPA method 8270C-SIM; and total and dissolved lead by EPA method 200.8. Samples to be tested for dissolved lead were field filtered through a 0.45 micron filter. The samples were supposed to be tested for TPH constituents, but TPH was inadvertently left off the sample analyte list. The analytical results are presented in Tables 2 through 5 and are summarized below.

PAHs. Table 3 shows that PAHs were detected in groundwater from each monitoring well. Total LPAH concentrations ranged from 0.29 to 55.64 μg/L, with the highest concentration at MW-5. Total HPAH concentrations ranged from 0.08 to 34.97 μg/L, with the highest concentration also at MW-5. A duplicate groundwater sample was analyzed from MW-5. The HPAH concentration from MW-5 had a high relative percent difference (RPD) of 100%. The high RPD is due to the turbidity of the sample. The silt fraction of the soil in the upper water table at this site is susceptible to movement into the well during purging and sampling. Sample turbidity appears to account for the increase in PAHs at monitoring well MW-3 from the July 2002 to the February 2003 sampling events.

Plans to rectify the groundwater turbidity problem include additional well screen development and future use of low flow sampling techniques.

Confidential Business Information 00035688

VOCs. VOC analytical results are presented in Table 4. A total of thirteen VOCs (benzene, toluene, ethylbenzene, m,p-xylenes, o-xylene, isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, 4-isopropyltoluene, n-butylbenzene, and naphthalene) were detected in MW-1, -3, -4, and -5. These VOCs are primarily gasoline components and gasoline breakdown products. VOCs were not detected in the groundwater sample from MW-2. The groundwater VOC concentrations are also likely biased high by the sample turbidity.

Total and Dissolved Lead. Total and dissolved lead analytical results are presented in Table 5. Total lead concentrations ranged from 0.7 to 288 μg/L. Dissolved lead concentrations ranged from nondetect (less than 0.02) to 0.06 μg/L. The total lead concentrations are biased high by the sample turbidity.

4.5 Data Validation

Review of the sampling and laboratory records showed no apparent discrepancies between samples collected in the field and those analyzed in the laboratory. The data validation report is in Appendix D. The HPAHs had high relative percent differences (RPDs) between the primary and duplicate samples from MW-5. Therefore, the HPAH concentrations for the primary and duplicate samples are qualified as estimated. Several VOCs were qualified as estimated due to poor percent recovery of laboratory control spikes. Overall, the data were judged to be acceptable for their intended use.

5 SUMMARIES OF PROBLEMS AND ACTIONS TAKEN TO RESOLVE PROBLEMS

Samples collected from MW-1, -2, -3, and -5 were turbid, which has affected the analytical results. This is because the target analytes tend to partition to the soil particles. Therefore, the analyte concentrations resulting from testing turbid groundwater samples does not reflect the ambient dissolved analyte concentration in groundwater. For future sampling events, all monitoring wells will be purged and sampled with a peristaltic pump with the exception of VOCs which will be collected using a disposable bailer. If the depth to water is too great to sample with a peristaltic pump, an alternative low flow or low impact technique will be used.

Confidential Business Information 00035689

TPH testing did not occur in the February 2003 groundwater sampling event. The error was discovered after the samples had been submitted to the lab but not enough sample volume was collected to analyze for TPH. Groundwater TPH testing by NWTPH-HCID with appropriate follow-up will occur on the next groundwater sampling event.

Confidential Business Information 00035690

Table 1
Water Level Measurements
Brix Maritime
Portland, Oregon

Anchor Environmental, L.L.C. — Site: Brix Maritime

Project No. : 990056-01

Well	Reference Elevation (Feet NAVD88)	Date (MM/DD/YY)	Time (2400)	DTW (feet)	Water Elevation (Feet NAVD88)	Comments
Monitoring Wells						
MW-1	41.81	02/28/03	12:20	18.89	22.92	
MW-1	41.81	03/31/03	16:35	19.43	22.38	
MW-2	42.13	02/28/03	12:10	19.88	22.25	
MW-2	42.13	03/31/03	15:50	20.36	21.77	
MW-3	42.13	07/29/02	13:00	22.91	19.22	
MW-3	42.13	08/22/02	7:15	23.50	18.63	Oil detected in well, thickness estimated at 0.02 foot
MW-3	42.13	09/30/02	7:00	23.37	18.76	Oil detected in well, thickness estimated at 0.02 foot
MW-3	42.13	10/30/02	15:50	23.68	18.45	DTP = 23.49 (0.19 foot thick)
MW-3	42.13	11/27/02	16:30	23.30	18.83	DTP = 23.16 (0.14 foot thick)
MW-3	42.13	12/30/02	16:30	21.99	20.14	Oil noted on probe, product too thin to measure with interface probe
MW-3	42.13	02/28/03	12:15	19.75	22.38	Oil noted on probe, product too thin to measure with interface probe
MW-3	42.13	03/31/03	16:20	20.24	21.89	No oil noted on probe
MW-4	23.55	07/29/02	12:55	11.62	11.93	
MW-4	23.55	08/22/02	7:25	11.77	11.78	
MW-4	23.55	09/30/02	6:50	11.94	11.61	
MW-4	23.55	10/30/02	15:55	12.06	11.49	
MW-4	23.55	11/27/02	16:35	11.85	11.70	
MW-4	23.55	12/30/02	16:35	10.24	13.31	
MW-4	23.55	02/28/03	12:35	4.34	19.21	
MW-4	23.55	03/31/03	16:45	4.59	18.96	
MW-5	41.66	02/28/03	12:28	19.45	22.21	
MW-5	41.66	03/31/03	16:10	19.99	21.67	
River Gauge[1]						
River	4.33	10/30/02	16:00	2.75	7.08	
River	4.33	11/27/02	16:40	3.10	7.43	
River	4.33	12/30/02	16:20	7.50	11.83	
River	4.33	02/28/03	12:00	6.10	10.43	
River	4.33	03/31/03	16:00	8.00	12.33	

Note: DTW = Depth to Water; DTP = Depth to Product

1 - The river gauge is marked in 1-foot increments, field measurements are estimated to the closest 0.1 foot.

Confidential Business Information

00035691

Table 2
Total Petroleum Hydrocarbons
Brix Maritime
Portland, Oregon

Location (sample depth in ft bgs)	Matrix	Date Date Sampled	Diesel Range Organics		Residual Range Organics	
MW-3	Water	07/30/02	3.4	Y	1.6	O
MW-4	Water	07/29/02	0.26	U	0.52	U
MW-1 (15-16.5)	Soil	02/11/03	360	L	110	U
MW-2 (10-11.5)	Soil	02/11/03	40	H	130	U
MW-4 (10-11.5)	Soil	07/17/02	35	U	140	U
MW-5 (5-6.5)	Soil	02/11/03	28	U	110	U
MW-5 (15-16.5)	Soil	02/11/03	27	U	110	U
MW-5 (22.5-24)	Soil	02/11/03	96	H	390	O

Notes: Water concentrations are in µg/L. Soil concentrations are in µg/kg.
ft bgs = feet below ground surface.
U = Not detected at method reporting limit.
O = The fingerprint resembles oil, but does not match the calibration standard.
L = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of lighter weight constituents than the calibration standard.
H = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of heavier weight constituents than the calibration standard.
Y = The fingerprint resembles a petroleum product in the correct carbon range, but the elution pattern does not match the calibration standard.

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00035692

TABLE 3
Polycyclic Aromatic Hydrocarbons
Brix Maritime
Portland, Oregon

Sample Designation	MW-1		MW-2		MW-3		MW-3		MW-4		MW-4		MW-5		MW-5 dup		MW-1 (15-16.5)		MW-2 (10-11.5)		MW-4 (10-11.5)		MW-5 (5-6.5)		MW-5 (15-16.5)		MW-5 (22.5-24)	
Matrix	Water		Water		Water		Water		Water		Water		Water		Water		Soil		Soil		Soil		Soil		Soil		Soil	
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/kg		µg/kg		µg/kg		µg/kg		µg/kg		µg/kg	
Date Sampled	02/28/03		02/28/03		07/30/02		02/28/03		07/29/02		02/28/03		02/28/03		02/28/03		07/17/02		02/11/03		07/17/02		07/17/02		07/17/02		07/17/02	
LPAHs																												
Naphthalene	**23**	D	**0.082**		**0.36**		**0.75**		**0.039**		**18**	D	**19**	D	**17**	D	**22000**	D	**26**		**41**		5	U	4.8	U	**1800**	D
Acenaphthylene	**0.19**		**0.023**		0.02	U	**0.22**		0.02	U	0.02	U	**0.10**		**0.40**		4.8	U	**11**		**11**		5	U	4.8	U	**38**	
Acenaphthene	**0.43**		0.02	U	**0.26**		**1.3**		**0.51**		**0.60**		**1.3**		**1.3**		**52**		**11**		7.1	U	**52**		4.8	U	**38**	
Dibenzofuran	**0.12**		0.02	U	**0.025**		**0.11**		0.02	U	0.02	U	**0.2**		**0.19**		**14**		5	U	7.1	U	**11**		4.8	U	**17**	
Fluorene	**0.36**		0.02	U	**0.09**		**1.0**		0.02	U	0.02	U	**1.2**		**1.3**		**110**		**10**		**7.3**		**53**		4.8	U	**51**	
Phenanthrene	**1.8**		**0.15**		**0.11**		**2.9**		**0.043**		0.02	U	**2.3**		**3.1**		**240**		**150**		**55**		**440**		**9.2**		**490**	
Anthracene	**0.53**		**0.032**		0.02	U	**0.55**		0.02	U	0.02	U	**0.55**		**0.93**		**59**		**48**		**11**		**54**		**5.5**		**82**	
2-MethylNaphthalene	**9.0**		0.02	U	**0.28**		**1.8**		0.02	U	**0.80**		**31**	D	**31**	D	**24000**	D	**11.0**		**8.4**		5.0	U	4.8	U	**910**	
Total LPAH	**35.43**		**0.29**		**1.13**		**8.63**		**0.59**		**19.40**		**55.64**		**55.22**		**46475**		**267.0**		**133.7**		**610.0**		**14.7**		**3426**	
HPAHs																												
Fluoranthene	**4.3**		**0.29**		**0.056**		**4.9**		**0.033**		**0.024**		**3.1**	J	**6.5**	J	**120**		**220**		**66**		**78**		**29**		**720**	
Pyrene	**13**	D	**0.42**		**0.058**		**7.6**	D	**0.046**		**0.055**		**4.3**	J	**9.1**	J	**160**		**410**		**83**		**77**		**63**		**850**	
Benz(a)anthracene	**2.1**		**0.11**		0.02	U	**2.1**	D	0.02	U	0.02	U	**0.72**	J	**2.80**	J	**54**		**120**		**18**		**9**		**16**		**330**	
Chrysene	**2.7**		**0.17**		0.02	U	**2.3**	D	0.02	U	0.02	U	**0.96**	J	**3.4**	J	**60**		**150**		**29**		**14**		**26**		**560**	
Benzo(b)fluoranthene	**1.4**		**0.14**		**0.022**		**1.8**	D	0.02	U	0.02	U	**0.44**	J	**2.2**	J	**32**		**94**		**23**		**12**		**16**		**830**	
Benzo(k)fluoranthene	**1.1**		**0.13**		0.02	U	**1.7**	D	0.02	U	0.02	U	**0.42**	J	**1.9**	J	**39**		**95**		**20**		**13**		**18**		**650**	
Benzo(a)pyrene	**2.0**		**0.19**		0.02	U	**2.3**	D	0.02	U	0.02	U	**0.65**	J	**3.6**	J	**36**		**150**		**34**		**14**		**23**		**920**	
Indeno(1,2,3-cd)pyrene	**1.5**		**0.20**		0.02	U	**1.5**	D	0.02	U	0.02	U	**0.49**	J	**2.5**	J	**30**		**120**		**33**		**21**		**23**		**2000**	D
Dibenz(a,h)anthracene	**0.17**		0.02	U	0.02	U	0.20	U	0.02	U	0.02	U	**0.044**	J	**0.27**	J	4.8	U	**13**		7.1	U	5.0	U	4.8	U	**150**	
Benzo(g,h,i)perylene	**1.5**		**0.22**		0.02	U	**1.9**	D	0.02	U	0.02	U	**0.52**	J	**2.7**	J	**41**		**120**		**49**		**22**		**25**		**2300**	D
Total HPAHs	**29.77**		**1.87**		**0.14**		**26.10**		**0.08**		**0.08**		**11.64**		**34.97**		**577**		**1492**		**355**		**260**		**239**		**9310**	

NOTE: µg/L = micrograms per liter or parts per billion.
µg/kg = micrograms per kilogram or parts per billion.
J = estimated concentration.
U = not detected at or above the indicated method reporting limit.

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Table 4
Volatile Organic Compounds
Brix Maritime
Portland, Oregon

Sample Designation	Matrix	Date Sampled	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	Acetone	1,1-Dichloroethene	Methyl tert-Butyl Ether	Carbon Disulfide	Methylene Chloride	*trans*- 1, 2-dichloroethene	1,1-Dichloroethane	2-Butanone	2,2-Dichloropropane	*cis*-1, 2-dichloroethene	Chloroform	Bromochloromethane	1,1,1-Trichloroethane	1,1-Dichloropropene	Carbon Tetrachloride
MW-1	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-2	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-3	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-3	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-5	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-5 Dup	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-1 (15-16.5)	Soil	02/11/03	110 U	110 U	110 U	110 U	110 U	110 U	4200 U	110 U	110 U	11 U	420 U	110 U	110 U	4200 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
MW-2 (10-11.5)	Soil	02/11/03	0.87 U	1.3 U	0.77 U	0.99 U	0.97 U	0.91 U	13 U	0.86 U	0.79 U	1.9 U	1.2 U	0.91 U	0.97 U	11 U	1 U	1.1 U	0.71 U	0.65 U	0.71 U	0.91 U	0.74 U
MW-4 (10-11.5)	Soil	07/17/02	6.8 UJ	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	**70**	6.8 U	6.8 U	6.8 U	14 U	6.8 U	6.8 U	27 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U
MW-5 (5-6.5)	Soil	02/11/03	5.5 UJ	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	11 U	5.5 U	5.5 U	22 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
MW-5 (15-16.5)	Soil	02/11/03	5.4 UJ	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	54 U	5.4 U	5.4 U	5.4 U	11 U	5.4 U	5.4 U	22 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
MW-5 (22.5-24)	Soil	02/11/03	7.5 UJ	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	**85**	7.5 U	7.5 U	7.5 U	15 U	7.5 U	7.5 U	30 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U

NOTE: Water concentrations are in µg/L. Soil concentrations are in µg/kg. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

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Table 4
Volatile Organic Compounds
Brix Maritime
Portland, Oregon

Sample Designation	Matrix	Date Sampled	1,2-Dichloroethane	Benzene	Trichloroethene	1,2-Dichloropropane	Bromodichloromethane	Dibromomethane	2-Hexanone	cis-1,3-Dichloropropene	Toluene	trans 1,3-Dichloropropene	1,1,2-Trichloroethane	4-Methyl-2-pentanone	1,3 Dichloropropane	Tetrachloroethene	Dibromochloromethane	1,2 Dibromoethane	Chlorobenzene	1,1,1,2-Tetrachloroethane	Ethylbenzene	m,p-Xylenes	o-Xylene	Styrene	Bromoform
MW-1	Water	02/28/03	0.5 U	**5.7**	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	**0.71**	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**37**	**50**	**12**	0.5 U	0.5 U
MW-2	Water	02/28/03	0.5 U	0.50 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-3	Water	07/17/02	0.5 U	**0.73**	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	**14**	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**0.51**	**3.5**	**2**	0.5 U	0.5 U
MW-3	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	**0.63**	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	**1.2**	**1.2**	0.5 U	0.5 U
MW-4	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	Water	02/28/03	0.5 U	**0.76**	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**2.3**	**1.4**	**1.2**	0.5 U	0.5 U
MW-5	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**15**	**12**	**0.97**	0.5 U	0.5 U
MW-5 Dup	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**16**	**14**	**1.10**	0.5 U	0.5 U
MW-1 (15-16.5)	Soil	02/11/03	110 U	110 U	110 U	110 UJ	110 U	110 U	4200 U	110 UJ	110 U	110 U	110 U	4200 U	110 U	110 U	110 UJ	420 U	110 U	110 U	**1000**	**1600**	**440**	110 U	110 U
MW-2 (10-11.5)	Soil	02/11/03	0.83 U	0.98 U	0.35 U	0.89 UJ	0.66 U	0.89 U	7.6 U	0.94 UJ	1.1 U	0.74 U	0.86 U	6.8 U	0.65 U	0.39 U	0.74 UJ	0.98 U	0.87 U	0.63 U	0.71 U	1.9 U	0.86 U	0.91 U	0.81 U
MW-4 (10-11.5)	Soil	07/17/02	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	27 U	6.8 U	6.8 U	6.8 U	6.8 U	27 U	6.8 U	6.8 U	6.8 U	27 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U
MW-5 (5-6.5)	Soil	02/11/03	5.5 U	5.5 U	5.5 U	5.5 UJ	5.5 U	5.5 U	22 U	5.5 UJ	5.5 U	5.5 U	5.5 U	22 U	5.5 U	5.5 U	5.5 UJ	22 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
MW-5 (15-16.5)	Soil	02/11/03	5.4 U	5.4 U	5.4 U	5.4 UJ	5.4 U	5.4 U	22 U	5.4 UJ	5.4 U	5.4 U	5.4 U	22 U	5.4 U	5.4 U	5.4 UJ	22 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
MW-5 (22.5-24)	Soil	02/11/03	7.5 U	7.5 U	7.5 U	7.5 UJ	7.5 U	7.5 U	30 U	7.5 UJ	7.5 U	7.5 U	7.5 U	30 U	7.5 U	7.5 U	7.5 UJ	30 U	7.5 U	7.5 U	**2500**	**2700**	**33**	7.5 U	7.5 U

NOTE: Water concentrations are in µg/L. Soil concentrations are in µg/kg. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

Table 4
Volatile Organic Compounds
Brix Maritime
Portland, Oregon

Sample Designation	Matrix	Date Sampled	Isopropylbenzene	1,1,2,2-Tetrachloroethane	1,2,3-Trichloropropane	Bromobenzene	n-Propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	1,3-Dichlorobenzene	4-Isopropyltoluene	1,4-Dichlorobenzene	n-Butylbenzene	1,2-Dichlorobenzene	1,2-Dibromo-3-chloropropane	1,2,4-Trichlorobenzene	1,2,3-Trichlorobenzene	Naphthalene	Hexachlorobutadiene
MW-1	Water	02/28/03	**19**	0.5 U	0.5 U	0.5 U	**65** D	2 U	2 U	**26**	2 U	**140** D	**10**	0.5 U	2 U	0.5 U	**21**	0.5 U	0.5 U	2 U	2 U	**31**	2 U
MW-2	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	0.5 U	2 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U
MW-3	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	**2.2**	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	0.5 U	2 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U
MW-3	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	0.5 U	2 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U
MW-4	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	0.5 U	2 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U
MW-4	Water	02/28/03	**29**	0.5 U	0.5 U	0.5 U	**35**	2 U	2 U	**2.2**	2 U	**3.8**	2 U	0.5 U	2 U	0.5 U	**3.1**	0.5 U	0.5 U	2 U	2 U	**45**	2 U
MW-5	Water	02/28/03	**24**	0.5 U	0.5 U	0.5 U	**110** D	2 U	2 U	**26**	2 U	**75** D	**27**	0.5 U	2 U	0.5 U	**87** D	0.5 U	0.5 U	2 U	2 U	**23**	2 U
MW-5 Dup	Water	02/28/03	**25**	0.5 U	0.5 U	0.5 U	**110** D	2 U	2 U	**30**	2 U	**99** D	**30**	0.5 U	**2.3**	0.5 U	**110** D	0.5 U	0.5 U	2 U	2 U	**25**	2 U
MW-1 (15-16.5)	Soil	02/11/03	**3000**	110 U	110 U	420 U	**18000**	420 U	420 U	7800 U	420 U	**59000**	7300 U	110 U	**1800**	110 U	**29000**	110 U	420 U	420 U	420 U	**64000**	420 U
MW-2 (10-11.5)	Soil	02/11/03	0.84 U	0.91 U	0.76 U	1 U	0.89 U	0.91 U	0.92 U	4.7 U	0.92 U	1.1 U	0.92 U	0.88 U	0.89 U	1.1 U	0.93 U	0.81 U	1.1 U	0.95 U	1.2 U	1.1 U	0.93 U
MW-4 (10-11.5)	Soil	07/17/02	6.8 U	6.8 U	6.8 U	6.8 U	27 U	27 U	27 U	27 U	27 U	27 U	27 U	6.8 U	27 U	6.8 U	27 U	6.8 U	6.8 U	27 U	27 U	27 U	27 U
MW-5 (5-6.5)	Soil	02/11/03	5.5 U	5.5 U	5.5 U	5.5 U	22 U	22 U	22 U	22 U	22 U	22 U	22 U	5.5 U	22 U	5.5 U	22 U	5.5 U	5.5 U	22 U	22 U	22 U	22 U
MW-5 (15-16.5)	Soil	02/11/03	5.4 U	5.4 U	5.4 U	5.4 U	22 U	22 U	22 U	22 U	22 U	22 U	22 U	5.4 U	22 U	5.4 U	22 U	5.4 U	5.4 U	22 U	22 U	22 U	22 U
MW-5 (22.5-24)	Soil	02/11/03	**7000**	7.5 U	7.5 U	7.5 U	30 U	65 U	30 U	970 U	30 U	**20000**	**180**	7.5 U	**33**	7.5 U	2500 U	7.5 U	7.5 U	30 U	30 U	**4900**	30 U

NOTE: Water concentrations are in µg/L. Soil concentrations are in µg/kg. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

Table 5
Lead
Brix Maritime
Portland, Oregon

Location		Matrix	Date Sampled	Result	
MW-1	Total	Water	02/28/03	288	
MW-1	Dissolved	Water	02/28/03	0.03	
MW-2	Total	Water	02/28/03	57.6	
MW-2	Dissolved	Water	02/28/03	0.04	
MW-3	Total	Water	07/30/02	0.88	
MW-3	Dissolved	Water	07/30/02	0.13	
MW-3	Total	Water	02/28/03	65.9	
MW-3	Dissolved	Water	02/28/03	0.05	
MW-4	Total	Water	07/29/02	0.36	
MW-4	Dissolved	Water	07/29/02	0.02	U
MW-4	Total	Water	02/28/03	0.70	
MW-4	Dissolved	Water	07/29/02	0.02	U
MW-5	Total	Water	02/28/03	131	
MW-5	Dissolved	Water	02/28/03	0.06	
MW-5 Duplicate	Total	Water	02/28/03	116	
MW-5 Duplicate	Dissolved	Water	02/28/03	0.03	
MW-1 (15-16.5)	Total	Soil	02/11/03	4200	
MW-2 (10-11.5)	Total	Soil	02/11/03	15900	
MW-4 (10-11.5)	Total	Soil	07/17/02	21000	
MW-5 (5-6.5)	Total	Soil	02/11/03	5400	
MW-5 (15-16.5)	Total	Soil	02/11/03	4000	
MW-5 (22.5-24)	Total	Soil	02/11/03	32500	

Note: U = not detected at method reporting limit. ppb = parts per billion.
Water concentrations are in µg/L. Soil concentrations are in µg/kg.

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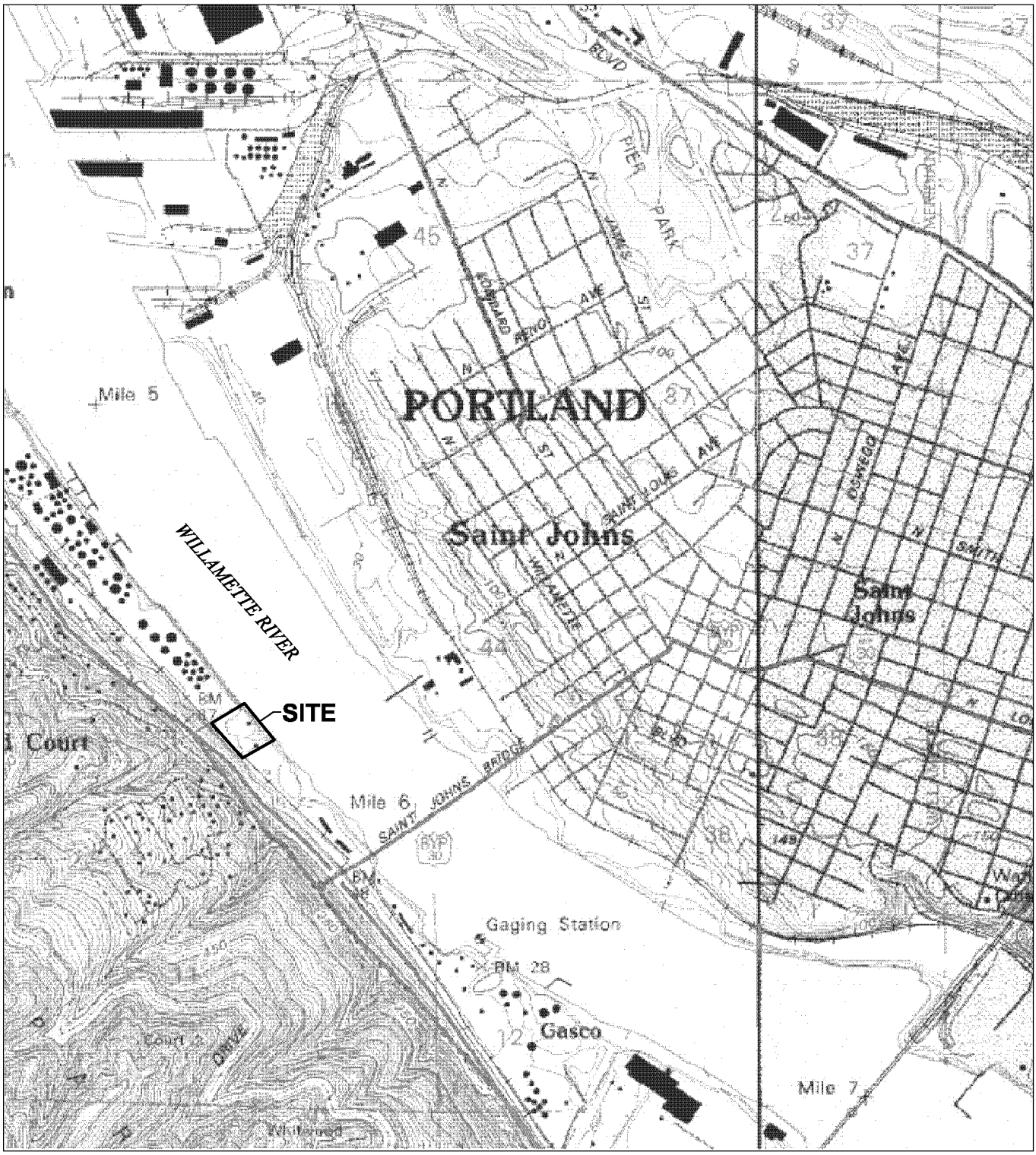

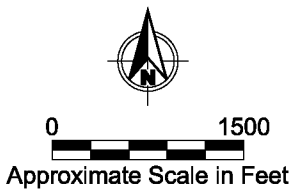

Apr 01, 2003 4:09pm cdavidson I:\CAD\Jobs\990056-Brix_Maritime\99005601\99005601-03.dwg FIG 1

ANCHOR ENVIRONMENTAL, L.L.C.

Figure 1
Site Location Map
Brix Maritime
Portland, Oregon

MW-1 Monitoring Well Location and Number

(22.92) Groundwater Elevation in Feet (NAVD 88)

— 19.5 — Potentiometric Surface Contour in Feet

□ Stormwater Catch Basin

0 100
Scale in Feet

Source: Aerial photograph acquired from WAC, Corp. 1991.

Apr 14, 2003 4:38pm rchao I:\CAD\Jobs\990056-Brix_Maritime\990005601\990005601-02.dwg Fig 2

ANCHOR ENVIRONMENTAL, L.L.C.

Figure 2
Well Location and Potentiometric Surface Map
Brix Maritime
Portland, Oregon

Appendix A – Well Logs

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-1**
LOCATION	**Portland, Oregon**	PAGE	**1 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**24.0'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
524	1.0	3 2 1		5				**5.0 to 6.5 feet: SILTY SAND (SM)**; medium to dark brown; 60 to 70 percent fine to medium sand; subangular to subrounded; 20 to 30 percent non to low plasticity fines; 10 percent fine to medium gravel; subrounded; gasoline-like odor; moist.
1,114	1.0	4 8 10		10				**10.0 to 11.5 feet: SAND (SP)**; dark gray to black; fine to medium sand; subangular to subrounded; trace fine to medium gravel; subrounded; gasoline-like odor; moist.
1,219	1.0	2 5 5		15				**15.0 to 16.5 feet: SAND (SP)**, as above.
				20				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:1.3/5/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-1**
LOCATION	**Portland, Oregon**	PAGE	**2 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**24.0'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
81.2	1.5	2 1 1						**20.0 to 21.0 feet: SAND (SP)**, same as above.
								21.0 to 21.5 feet: SILTY SAND (SM); dark gray to black; 70 to 80 percent low to medium plasticity fines; trace wood fragments; gasoline-like odor; wet.
20.3	0.5	1 0 0						**22.5 to 24.0 feet: SILT (ML)**; gray; low to medium plasticity fines; trace fine to medium sand; trace wood fragments and roots; moist.
				25				Boring terminated at 22.5 feet. Split-spoon sampler advanced to 24.0 feet.
				30				**WELL COMPLETION DETAILS** 0 to 7.1 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC blank riser pipe. 7.1 to 22.1 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC well screen with 0.020-inch machined slots. 22.1 to 22.6 feet: 2-inch-diameter threaded end cap. 0 to 1.0 foot: Concrete. 1.0 to 5.5 feet: Bentonite chips hydrated with potable water. 5.5 to 22.6 feet: 10-20 Colorado Silica Sand.
				35				
				40				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:3.3/28/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-2**
LOCATION	**Portland, Oregon**	PAGE	**1 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**26.5'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
								0.5 to 2.5 feet: GRAVEL (GW), base fill.
				5				
0	1.5	15 15 15						**5.0 to 6.5 feet: SILTY SAND (SM)**; medium to dark brown; 60 percent fine to medium sand, subangular to subrounded; 20 to 30 percent nonplastic to low plasticity fines; 10 to 20 percent gravel; fine to medium; angular; moist.
								@ 7.5 feet: smoother drilling.
				10				
0	1.0	3 4 4						**10.0 to 11.5 feet: SILTY SAND (SM)**; medium to dark brown; 60 to 70 percent fine to medium sand; subangular to subrounded; 30 to 40 percent nonplastic to low plasticity fines; moist. @ 11.0 feet: color change to gray.
				15				
0	1.5	5 9 12						**15.0 to 16.5 feet: SAND (SP)**; medium brown; fine to medium sand; subangular to subrounded; trace fine to medium gravel; subrounded; moist.
								@ 20.0 feet: wet.
				20				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:2.3/19/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-2**
LOCATION	**Portland, Oregon**	PAGE	**2 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**26.5'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
0	1.0	5 7 9						**20.0 to 21.5 feet: SAND (SP)**; same as above.
0	1.0	4 5 3						**22.5 to 23.5 feet: SAND (SP)**; same as above. **23.5 to 24.0 feet: SILTY SAND (SM)**; dark gray to black; 70 to 80 percent fine sand; 20 to 30 percent nonplastic to low plasticity fines; wet.
0	1.5	1 1 2		25				**25.0 to 26.5 feet: SILT (ML)**; gray; medium plasticity fines; trace fine to medium sand; trace root hairs; moist.
				30				Boring terminated at 25.0 feet. Split-spoon sampler advanced to 26.5 feet. **WELL COMPLETION DETAILS** 0 to 9.6 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC blank riser pipe. 9.6 to 24.6 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC well screen with 0.020-inch machined slots. 24.6 to 25.1 feet: 2-inch-diameter threaded end cap. 0 to 1.0 foot: Concrete. 1.0 to 8.0 feet: Bentonite chips hydrated with potable water. 8.0.0 to 25.0 feet: 10-20 Colorado Silica Sand.
				35				
				40				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:3.3/28/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-5**
LOCATION	**Portland, Oregon**	PAGE	**1 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**24.0'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
								0.5 to 2.5 feet: GRAVEL (GW); gravel base fill.
2	1.0	4 5 5		5				**5.0 to 6.0 feet: SAND (SP)**; dark gray to black; fine to medium sand; subangular to subrounded; trace fine to medium gravel; subangular to subrounded; petroleum-hydrocarbon-like odor; moist.
2.2	1.0	3 20 23		10				**5.0 to 6.0 feet: SAND (SP)**; same as above.
6.3	1.0	3 5 9		15				**15.0 to 16.5 feet: SAND (SP)**; same as above.
				20				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:2.3/19/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-5**
LOCATION	**Portland, Oregon**	PAGE	**2 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**24.0'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
3.0	1.0	3 5 6						**20.0 to 21.5 feet: SAND (SP)**; same as above; wet.
101	1.0	0 1 3						**22.5 to 22.7 feet: SAND (SP)**; same as above. **22.7 to 24.0 feet: SILT (ML)**; gray; medium plasticity fines; trace fine to medium sand; trace root hairs; slight sheen at sand/silt interface; moist. Boring terminated at 22.5 feet. Split-spoon sampler advanced to 24.0 feet.
				25				
				30				
				35				
				40				

WELL COMPLETION DETAILS

0 to 7.1 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC blank riser pipe.
7.1 to 22.1 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC well screen with 0.020-inch machined slots.
22.1 to 22.6 feet: 2-inch-diameter threaded end cap.

0 to 1.0 foot: Concrete.
1.0 to 5.5 feet: Bentonite chips hydrated with potable water.
5.5.0 to 22.6 feet: 10-20 Colorado Silica Sand.

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:3.3/28/03.BRIX...990056-01

Appendix B – Laboratory Reports

IN HARD COPY ONLY

Appendix C – Field Data Records

IN HARD COPY ONLY

Appendix D – Data Validation Review

LABORATORY DATA REVIEW

BRIX Maritime

February 2003

This report presents a review of the samples collected from BRIX Maritime on February 11 and 28, 2003. Samples were analyzed by Columbia Analytical Services, Inc. (CAS), in Kelso, Washington.

Data Qualifications

The following comments refer to the laboratory's performance in meeting the quality control (QC) specifications outlined in the analytical procedures and the Quality Assurance Project Plan (QAPP). Analytical results were reviewed using *USEPA Contract Laboratory Program National Functional Guidelines for Inorganics Data Review* (USEPA, 1994a), and *USEPA Contract Laboratory Program National Functional Guidelines for Organics Data Review* (USEPA, 1994b), and applying laboratory and method QC criteria.

The laboratory Sample Receipt Form states that the cooler temperatures were 2.5°C and 1.7 °C upon arrival at the laboratory. Sample transport and handling were acceptable.

Unless specifically noted in this report, laboratory results were within QC criteria.

Holding Times

All sample analyses were conducted within recommended holding times. No data were qualified due to these results.

Method Reporting Limits (MRLs)

The MRLs were acceptable.

Method Blanks

Method blanks were analyzed at the required frequency for all analyses. Method blanks were free of contamination with one exception. Toluene was detected in the Method Blank analyzed on 2/28/03; toluene was not detected in any of the associated samples. No data were qualified due to these results.

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Trip and Field Blanks

One trip blank was submitted with the samples and analyzed for VOCs. The trip blank was free of contamination. No data were qualified due to these results.

One field blank, MW-Z-022803, was collected and analyzed for VOCs. The field blank was free of contamination. No data were qualified due to these results.

Field Duplicates

One field duplicate was submitted with the samples. The field duplicate results were comparable with the following exception. The high molecular weight PAHs (HPAHs) had high relative percent differences (RPDs) between the primary (MW-5) and duplicate (MW-55) sample. The RPDs ranged from 70.8% to 143%. Therefore, the HPAHs (fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene and benzo(g,h,i)perylene) for the primary and duplicate samples are qualified as estimated (J). The remaining samples are not qualified as the LCS/LCSD RPDs were within the control limits.

Field duplicate results for total and dissolved lead and VOCs were comparable. No other data was qualified.

Surrogate Recoveries

Surrogate recoveries were reported for all organic analyses. Three samples had one of three VOC surrogates slightly below the control limits. One sample had one of three PAH surrogates slightly below the control limits. As only one of the three surrogates was slightly out, no data were qualified.

Laboratory Duplicate Results

The laboratory analyzed duplicates at the required frequency. All relative percent differences (RPDs) were within acceptance criteria. No data were qualified due to these results.

Matrix Spike/Matrix Spike Duplicate Results

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were conducted at the required frequency. No data were qualified due to these results.

Laboratory Control Sample Results

Laboratory control sample (LCS) analyses were conducted at the required frequency. The LCS-KWG0303202 percent recovery for 1,1-dichloroethane (80%) and 1,2-dichloropropane (84%) were below the laboratory control limits; associated samples are qualified as estimated (J) for these two analytes. The LCS-KWG0301881 percent

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recovery for 1,2-dichloropropane (83%), cis-1,3-dichloropropene and dibromochloromethane (77%) were below the laboratory control limits; associated samples are qualified as estimated (J) for these three analytes.

Completeness

The results reported by the laboratory were checked against chain-of-custody entries to determine if all of the requested analyses were completed. All requested analyses were conducted.

Overall Assessment

The data are judged to be acceptable, as qualified, for their intended use.

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REFERENCES

USEPA. 1986. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 530/SW-846.

USEPA. 1994a. USEPA Contract Laboratory Program National Functional Guidelines for Inorganics Data Review. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency. EPA 540/R-94/012. February.

USEPA. 1994b. USEPA Contract Laboratory Program National Functional Guidelines for Organics Data Review. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency. EPA 540/R-94/012. February.

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MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : RUST-INHIBITIVE PRIMER
IDENTIFICATION NUMBER: 1573 402
DATE PRINTED : 04/02/99

PRODUCT USE/CLASS : SPEEDY DRY SYSTEM

SUPPLIER:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, Illinois
60061 USA

(847) 367-7700 Rust-Oleum Corp.
Mon.-Fri, 8:00 AM-4:30 PM

MANUFACTURER:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, Illinois
60061 USA

(847) 367-7700 Rust-Oleum Corp.
Mon.-Fri, 8:00 AM-4:30 PM

PREPARER: LJW, PHONE: , PREPARE DATE: 04/02/99

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % LESS THAN
01	Magnesium Silicate	14807-96-6	30.0 %
02	XYLENE	1330-20-7	20.0 %
03	ETHYLBENZENE	100-41-4	5.0 %

EXPOSURE LIMITS

ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	MEXICAN TLV-TWA	SKIN
01	10mg/m3	N.E.	15mg/m3	N.E.	N.E.	NO
02	100PPM	150PPM	100PPM	N.E.	N.E.	NO
03	100 PPM	125 PPM	100 PPM	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: Harmful if swallowed. Causes eye irritation. Flammable liquid and vapor. Causes nose and throat irritation. Harmful if inhaled. May effect the brain or nervous system causing dizziness, headache or nausea. High vapor concentrations can irritate eyes, nose and respiratory

(Continued on Page 2)

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SECTION 3 - HAZARDS IDENTIFICATION

passages.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Prolonged or repeated skin contact may cause irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. Avoid breathing vapors or mists. High vapor concentrations are irritating to the eyes, nose, throat and lungs.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and hearing loss.

PRIMARY ROUTE(S) OF ENTRY: SKIN ABSORPTION INHALATION EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID - EYE CONTACT: Hold eyelids apart and flush with plenty of water for at lease 15 minutes. Get medical attention.

FIRST AID - SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 81 F (SETAFLASH CLOSED CUP)

LOWER EXPLOSIVE LIMIT: 1.0 %
UPPER EXPLOSIVE LIMIT: 6.7 %

AUTOIGNITION TEMPERATURE: ND

(Continued on Page 3)

SECTION 5 - FIRE FIGHTING MEASURES

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EXTINGUISHING MEDIA: DRY CHEMICAL FOAM WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Evacuate area and fight fire from a safe distance.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Eliminate all ignition sources; use explosion-proof equipment. Place material in a container and dispose of according to local, provincial, state and federal regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Keep away from heat, sparks, flame and sources of ignition. Keep container closed when not in use.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace

conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

(Continued on Page 4)

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE	: 276 - 284 F	VAPOR DENSITY	: Is heavier than air
ODOR	: SOLVENT	ODOR THRESHOLD	: ND
APPEARANCE	: LIQUID	EVAPORATION RATE	: Is slower than Ether
SOLUBILITY IN H2O	: INSOLUBLE		
FREEZE POINT	: ND	SPECIFIC GRAVITY	: 1.3756
VAPOR PRESSURE	: ND	pH @ 0.0 %	: ND
PHYSICAL STATE	: LIQUID	VISCOSITY	: ND

COEFFICIENT OF WATER/OIL DISTRIBUTION: ND

(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION PRODUCTS: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

COMPONENT TOXICOLOGICAL INFORMATION:

CHEMICAL NAME	LD50	LC50

(Continued on Page 5)

SECTION 11 - TOXICOLOGICAL PROPERTIES

CHEMICAL NAME	LD50	LC50
Magnesium Silicate	None	TCLo:11mg/m3 inh.
XYLENE	RAT 4300MG/KG	RAT 5000PPM 4HR
ETHYLBENZENE	RAT 3500MG/KG	N.A.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of material in accordance to local, state and federal regulations and ordinances. Do not allow to enter storm drains or sewer systems.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: PAINT

DOT TECHNICAL NAME:

DOT HAZARD CLASS: 3 HAZARD SUBCLASS:

DOT UN/NA NUMBER: UN1263 PACKING GROUP: III RESP. GUIDE PAGE: 127

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:
This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD CHRONIC HEALTH HAZARD FIRE HAZARD

(Continued on Page 6)

SECTION 15 - REGULATORY INFORMATION

SARA SECTION 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	WT/WT % IS LESS THAN
XYLENE	1330-20-7	20.0 %
ETHYLBENZENE	100-41-4	5.0 %

TOXIC SUBSTANCES CONTROL ACT:
This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

CHEMICAL NAME	CAS NUMBER
No information is available.	

U.S. STATE REGULATIONS: AS FOLLOWS -

NEW JERSEY RIGHT-TO-KNOW:
The following materials are non-hazardous, but are among the top five components in this product:

CHEMICAL NAME	CAS NUMBER
ALKYD RESIN	PROPRIETARY
Yellow Iron Oxide	51274-00-1
Zinc Phosphate	7779-90-0

PENNSYLVANIA RIGHT-TO-KNOW:
The following non-hazardous ingredients are present in the product at greater than 3%:

CHEMICAL NAME	CAS NUMBER
ALKYD RESIN	PROPRIETARY
Yellow Iron Oxide	51274-00-1
Zinc Phosphate	7779-90-0

CALIFORNIA PROPOSITION 65:
WARNING: The chemical(s) noted below and contained in this product, are known to the state of California to cause cancer, birth defects or other reproductive harm:

CHEMICAL NAME	CAS NUMBER
According to our raw material suppliers no Proposition 65 chemicals exist in this product above OSHA de minimus levels. All products comply with label provisions of Proposition 65.	

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

(Continued on Page 7)

SECTION 15 - REGULATORY INFORMATION

CANADIAN WHMIS CLASS: B2 D2A

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 2* FLAMMABILITY: 3 REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 04/02/99

REASON FOR REVISION: TRANSPORTATION INFORMATION

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

: No Information.

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

Material Safety Data Sheet

24 Hour Assistance:
1-847-367-7700
Rust-Oleum Corp.
www.rustoleum.com

Section 1 - Chemical Product / Company Information

Product Name:	Rust-Oleum High Performance Industrial DTM Acrylic Primer	Revision Date:	08/26/2004
Identification Number:	3769300, 3769402, 3781300, 3781402		Industrial Enamel Primer (Red Primer)
Product Use/Class:	Primer/Water Based Acrylic		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	Manufacturer:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
Preparer:	Cziczo, Ray		

Section 2 - Composition / Information On Ingredients

Chemical Name	CAS Number	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Titanium Dioxide	13463-67-7	10.0	10 mg/m3	N.E.	10 mg/m3	N.E.
Dipropylene Glycol Monobutyl Ether	29911-28-2	5.0	N.E.	N.E.	N.E.	N.E.
Zinc Phosphate	7779-90-0	5.0	N.E.	N.E.	N.E.	N.E.
Propylene Glycol	57-55-6	5.0	N.E.	N.E.	N.E.	N.E.
Diethylene Glycol Monobutyl Ether	112-34-5	5.0	N.E.	N.E.	N.E.	N.E.

Section 3 - Hazards Identification

*** Emergency Overview ***: Use ventilation necessary to keep exposures below recommended exposure limits, if any.

Effects Of Overexposure - Eye Contact: Causes eye irritation.

Effects Of Overexposure - Skin Contact: Substance may cause slight skin irritation.

Effects Of Overexposure - Inhalation: Low hazard for usual industrial handling or commercial handling by trained personnel.

Effects Of Overexposure - Ingestion: Substance may be harmful if swallowed.

Effects Of Overexposure - Chronic Hazards: Contains: Propylene Glycol. Human systemic effects by ingestion: general anesthesia, convulsions, changes in surface EEG.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Inhalation, Eye Contact

Section 4 - First Aid Measures

First Aid - Eye Contact: Hold eyelids apart and flush with plenty of water for at least 15 minutes. Get medical attention.

First Aid - Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists.

First Aid - Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

First Aid - Ingestion: Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention.

Section 5 - Fire Fighting Measures

Flash Point: >212 F
(Setaflash)

LOWER EXPLOSIVE LIMIT: 0.9 %
UPPER EXPLOSIVE LIMIT : 24.6 %

Extinguishing Media: Dry Chemical, Foam, Water Fog

Unusual Fire And Explosion Hazards: FLASH POINT IS TESTED TO BE GREATER THAN 200 DEGREES F.

Special Firefighting Procedures: Water may be used to cool closed containers to prevent buildup of steam.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers.

Section 7 - Handling And Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Avoid contact with eyes.

Storage: Keep container closed when not in use. Keep from freezing.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Respiratory Protection: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Skin Protection: Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

Eye Protection: Use safety eyewear designed to protect against splash of liquids.

Other protective equipment: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

Hygienic Practices: Wash thoroughly with soap and water before eating, drinking or smoking.

Section 9 - Physical And Chemical Properties

Boiling Range:	369 - 453 F	Vapor Density:	Heavier than air
Odor:	Ammonia Like	Odor Threshold:	ND
Appearance:	Liquid	Evaporation Rate:	Slower than Ether
Solubility in H2O:	Soluble		
Freeze Point:	ND	Specific Gravity:	1.4600
Vapor Pressure:		PH:	NE
Physical State:	Liquid		

(See section 16 for abbreviation legend)

Section 10 - Stability And Reactivity

Conditions To Avoid: Avoid contact with strong acid and strong bases.

Incompatibility: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

Hazardous Decomposition: When heated to decomposition it emits acrid smoke and irritating fumes. By open flame, carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur under normal conditions.

Stability: This product is stable under normal storage conditions.

Section 11 - Toxicological Information

Product LD50: ND

Product LC50: ND

Chemical Name	LD50	LC50
Titanium Dioxide	>7500 mg/kg (ORAL, RAT)	N.D.
Dipropylene Glycol Monobutyl Ether	4400 mg/kg (ORAL, RAT)	N.D.
Zinc Phosphate	N.D.	N.D.
Propylene Glycol	20000 mg/kg (ORAL, RAT)	N.D.
Diethylene Glycol Monobutyl Ether	6560 mg/kg (ORAL, RAT)	>2000 ppm (INH 7 Hr, RAT)

Section 12 - Ecological Information

Ecological Information: Product is a mixture of listed components.

Section 13 - Disposal Information

Disposal Information: Dispose of material in accordance to local, state and federal regulations and ordinances. Do not allow to enter storm drains or sewer systems.

Section 14 - Transportation Information

DOT Proper Shipping Name:	Paint	Packing Group:	—
DOT Technical Name:	—	Hazard Subclass:	—
DOT Hazard Class:	—	Resp. Guide Page:	—
DOT UN/NA Number:	—		

Section 15 - Regulatory Information

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD

SARA Section 313:

Listed below are the substances (if any) contained in this product that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS Number
Zinc Phosphate	7779-90-0
Diethylene Glycol Monobutyl Ether	112-34-5

Toxic Substances Control Act:

Listed below are the substances (if any) contained in this product that are subject to the reporting requirements of TSCA 12(B) if exported from the United States:

None known

U.S. State Regulations: As follows -

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

Chemical Name	CAS Number
Water	7732-18-5
Modified Acrylic Copolymer	PROPRIETARY
Calcium Carbonate	1317-65-3
Red Iron Oxide	1332-37-2

Pennsylvania Right-to-Know:

The following non-hazardous ingredients are present in the product at greater than 3%.

Chemical Name	CAS Number
Water	7732-18-5
Modified Acrylic Copolymer	PROPRIETARY
Calcium Carbonate	1317-65-3
Red Iron Oxide	1332-37-2

California Proposition 65:

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

Chemical Name	CAS Number
Microcrystalline Silica	14808-60-7
Lead Compounds	NOT SPECIFIED
Cadmium Compounds	NOT SPECIFIED
Propylene Oxide	75-56-9
Ethylene Oxide	75-21-8
Benzene	71-43-2
1,4-Dioxane	123-91-1
Arsenic Compounds	NOT SPECIFIED
Acetaldehyde	75-07-0
Formaldehyde	50-00-0

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

Chemical Name	CAS Number
Lead Compounds	NOT SPECIFIED
Cadmium Compounds	NOT SPECIFIED
Ethylene Oxide	75-21-8
Benzene	71-43-2
Arsenic Compounds	NOT SPECIFIED
Ethylene Glycol Monoethyl Ether	110-80-5

International Regulations: As follows -

CANADIAN WHMIS:

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: D2B

Section 16 - Other Information

HMIS Ratings:

Health: 1 Flammability: 0 Reactivity: 0 Personal Protection: X

VOLATILE ORGANIC COMPOUNDS, g/l: <250

REASON FOR REVISION:

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

CHEVRON RYKON® OILS AW

ISO 32, 46, 68

CUSTOMER BENEFITS

Chevron Rykon Oils AW deliver value through:

- **High oxidation stability** — Longer service life than with conventional lubricants in high pressure service.
- **Rust and corrosion protection** — Gives excellent protection against corrosion of both copper and steel, and passes the ASTM D 665A distilled water rust test and ASTM D 665B synthetic sea water rust test.
- **Minimum viscosity change** over a wide temperature range.
- **Foam inhibition** — Contains special foam suppressant. Eliminates both foaming and aeration problems.
- **Excellent antiwear properties**
- **Passes all major pump manufacturer's requirements** — Meets the requirements of leading hydraulic pump manufacturers for antiwear-type hydraulic fluids in both vane- and piston-type pumps.
- **Good stability in the presence of water** by ASTM D 2619 Hydrolytic Stability test and the Denison T6C Wet Vane Pump test.
- **Excellent thermal stability** in the presence of copper and steel at 135°C (275°F) by the Cincinnati Machine Thermal Stability, Procedure A, test.
- **Fast water separation** — Minimize rust problems by fast release of water.
- **Excellent filterability** — Excellent thermal and hydrolytic stability prevents formation of deposits which may interfere with filtration in equipment with close tolerances.

FEATURES

Chevron Rykon Oils AW are designed to give maximum hydraulic pump protection.

Chevron Rykon Oils AW are formulated with ISOSYN® base stocks.

They provide excellent antiwear protection, oxidation and corrosion inhibition, as well as foam and aeration suppression.

All grades have excellent demulsibility characteristics.

Hydraulic systems, due to the nature of their operation, experience accelerated wear unless they are protected by clean, high quality antiwear hydraulic oils. Surging pressures in pumps and valves can increase metal-to-metal contact unless antiwear protection is present. The antiwear additives in Chevron Rykon Oils AW create a protective film on the metal surfaces. This protective film minimizes metal-to-metal contact, which is most severe in vane- and gear-type pumps. As hydraulic pressures increase over 1000 psi, the need for antiwear protection increases proportionally.

APPLICATIONS

Chevron Rykon Oils AW are most commonly used for hydraulics with vane- or gear-type pumps, especially where pressures exceed 1000 psi. They can also be used to lubricate lightly loaded reciprocating compressors and as general purpose shop lubricants for motors and bearings.

Chevron Rykon Oils AW meet AGMA Specification 1 (ISO 46) and Specification 2 (ISO 68).

Chevron Rykon Oils AW are certified by **NSF** and are acceptable as lubricants where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Chevron Rykon Oils AW:

- have **Eaton-Vickers** 35VQ25A pump approvals for M-2950-S (Mobile) and I-286-S (Stationary)
- have **Denison** HF-0/HF-2 approvals
- have **Bosch Rexroth** approvals as well as meeting pump manufacturer requirements of **Racine** Model S

Chevron Rykon Oils AW meet the requirements of:

- **Cincinnati Machine** P-68 (ISO 32), P-70 (ISO 46), and P-69 (ISO 68)
- **General Motors** LS2 Specification LH for antiwear hydraulic fluids.

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8 January 2008
IO-195

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

TYPICAL TEST DATA

ISO Grade	32	46	68
Product Number	*229001*	*229002*	*229003*
MSDS Number	*10910*	*10910*	*10910*
AGMA Grade	—	1	2
API Gravity	32.6	31.8	31.6
Viscosity, Kinematic cSt at 40°C cSt at 100°C	 30.4 5.2	 43.7 6.5	 64.6 8.4
Viscosity, Saybolt SUS at 100°F SUS at 210°F	 157 44	 225 48	 335 54
Viscosity Index	98	97	99
Flash Point, °C(°F)	220(428)	226(439)	235(455)
Pour Point, °C(°F)	-33(-27)	-30(-22)	-30(-22)
Oxidation Stability Hours to 2.0 mg KOH/g acid number, ASTM D 943	 >5000	 >5000	 >5000

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.

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00035728

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Havoline® Motor Oil (Deposit Shield)

Product Use: Engine Oil
Product Number(s): CPS223391, CPS223392, CPS223393, CPS223394, CPS223395, CPS223396, CPS223397
Synonyms: Havoline® Motor Oil SAE 10W-30, Havoline® Motor Oil SAE 10W-40, Havoline® Motor Oil SAE 20W-50, Havoline® Motor Oil SAE 30, Havoline® Motor Oil SAE 40, Havoline® Motor Oil SAE 5W-20, Havoline® Motor Oil SAE 5W-30
Company Identification
Chevron Products Company
Global Lubricants
6001 Bollinger Canyon Road
San Ramon, CA 94583
United States of America

Transportation Emergency Response
CHEMTREC: (800) 424-9300 or (703) 527-3887
Health Emergency
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623
Product Information
email : lubemsds@chevrontexaco.com
Product Information: 800-LUBE-TEK
MSDS Requests: 800-414-6737

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 95 %weight

SECTION 3 HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS
Eye: Not expected to cause prolonged or significant eye irritation.
Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.
Ingestion: Not expected to be harmful if swallowed.
Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

Confidential Business Information
00035729

SECTION 4 FIRST AID MEASURES

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.
Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.
Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

SECTION 5 FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:
OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS: Health: 0 Flammability: 1 Reactivity: 0

FLAMMABLE PROPERTIES:
Flashpoint: (Cleveland Open Cup) 200 °C (392 °F) (Min)
Autoignition: No Data Available
Flammability (Explosive) Limits (% by volume in air): Lower: Not Applicable Upper: Not Applicable

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:
Fire Fighting Instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.
Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.
Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Confidential Business Information
00035730

Precautionary Measures: Keep out of the reach of children.
General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.
Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:
Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT
Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.
Respiratory Protection: No respiratory protection is normally required.
If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.
Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.
Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--

Confidential Business Information
00035731

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Amber
Physical State: Liquid
Odor: Petroleum odor
pH: Not Applicable
Vapor Pressure: <0.01 mmHg @ 100 °C (212 °F)
Vapor Density (Air = 1): >1
Boiling Point: >315°C (599°F)
Solubility: Soluble in hydrocarbons; insoluble in water
Freezing Point: Not Applicable
Specific Gravity: 0.87 @ 15.6°C (60.1°F) / 15.6°C (60.1°F) (Typical)
Density: 0.866 kg/l @ 15°C (59°F) (Typical)
Viscosity: 7.6 mm2/s @ 100°C (212°F) (Min)

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Incompatibility With Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products: None known (None expected)
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS
Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.
Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.
Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials or product components.
Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

ADDITIONAL TOXICOLOGY INFORMATION:
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen

Confidential Business Information
00035732

with unknown relevance to humans (A3).

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY
This material is not expected to be harmful to aquatic organisms.

ENVIRONMENTAL FATE
This material is not expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR
Additional Information:NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE.

IMO/IMDG Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

SECTION 15 REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES:

1.	Immediate (Acute) Health Effects:	NO
2.	Delayed (Chronic) Health Effects:	NO
3.	Fire Hazard:	NO
4.	Sudden Release of Pressure Hazard:	NO
5.	Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK

Confidential Business Information
00035733

02=NTP Carcinogen 06=NJ RTK
07=PA RTK

No components of this material were found on the regulatory lists above.

CHEMICAL INVENTORIES:
All components comply with the following chemical inventory requirements: EINECS (European Union), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components has been notified but may not be listed in the following chemical inventories: DSL (Canada). Secondary notification by the importer may be required.

One or more components does not comply with the following chemical inventory requirements: AICS (Australia), ENCS (Japan).

NEW JERSEY RTK CLASSIFICATION:
Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Motor oil)

WHMIS CLASSIFICATION:
This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 0 Flammability: 1 Reactivity: 0

HMIS RATINGS: Health: 1 Flammability: 1 Reactivity: 0
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

LABEL RECOMMENDATION:
Label Category : ENGINE OIL 1 - ENG1

REVISION STATEMENT: This is a new Material Safety Data Sheet.
Revision Date: October 02, 2006

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Government Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

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00035734

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Chevron Energy Technology Company, 100 Chevron Way, Richmond, California 94802.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Confidential Business Information
00035735

STP® Heavy Duty Brake Fluid, DOT 3

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

STP® Heavy Duty Brake Fluid, DOT 3

Manufactured for:
The Armor All / STP Products Company
1221 Broadway
Oakland, CA 94612
Telephone: (510)271-7000

Product Type Auto Brake Fluid

Stock ST0925, ST0925CAN, ST0925SP, ST0925PR, ST0926, ST0926CAN, Z-302

Formula RM3715, RM3725, RM3837, RM3941, RM3950

Emergency Phone Numbers For Medical Emergencies Call: 1-800-446-1014 For Transportation Emergencies Call: 1-800-424-9300 (Chemtrec)

2 COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Materials

Material	%	CAS #	Exposure Limit	Source
Triethylene Glycol Monobutyl Ether	0-70	143-22-6	None Established	(3)
Triethylene Glycol Monoethyl Ether	0-45	112-50-5	None Established	(3)
Triethylene Glycol Monomethyl Ether	0-35	112-35-6	None Established	(3)
Glycol Heavies	0-35	25322-68-3	None Established	(3)
Polyalkylene Glycol	0-10	9038-95-3	None Established	(3)
Diethylene Glycol Monobutyl Ether	0-10	112-34-5	None Established	(3)
Diethylene Glycol Monomethyl Ether	0-5	111-77-3	None Established	(3)
Diethylene Glycol Monoethyl Ether	0-2	111-90-0	None Established	(3)

None of the ingredients is listed as a carcinogen or potential carcinogen by IARC, NTP or OSHA.

The Permissible Exposure Limits (PEL) reported above are the pre-1989 limits that were reinstated by OSHA following a decision by the 11th Circuit Court of Appeals. These PELs are being enforced by Federal OSHA. Be aware that more restrictive limits may be enforced by some states. The Armor All / STP Products Company recommends that the lower exposure limits be observed as reasonable worker protection.

Confidential Business Information 00035736

STP® Heavy Duty Brake Fluid, DOT 3

2 COMPOSITION / INFORMATION ON INGREDIENTS (continued)

The source for exposure limits listed above are:

1. OSHA Permissible Exposure Limit (PEL)
2. ACGIH Threshold Limit Value (TLV)
3. Both the OSHA PEL and ACGIH TLV
4. Recommended by the Manufacturer

3 HAZARDS IDENTIFICATION

Principal Hazards

Warning

- Clear amber liquid with a mild odor.
- Accidental ingestion of this material may cause gastrointestinal disturbances including irritation, nausea, vomiting and diarrhea.
- Aspiration from ingestion may cause central nervous system depression and kidney and liver damage.
- Breathing vapors or mists may cause mucous membrane irritation.
- May cause eye irritation or possible corneal injury.
- Prolonged skin contact may cause irritation.

See Section 11 for complete health hazard information

KEEP OUT OF REACH OF CHILDREN

4 FIRST AID

Swallowing

If swallowed, get immediate medical advice by calling a Poison Control Center or emergency room. If advice is not available, then give 1 or 2 glasses of water or milk and induce vomiting. Take victim and product container to the nearest emergency treatment center or hospital. Do not attempt to give anything by mouth to an unconscious person.

Skin

Remove contaminated clothing. Wash all affected and exposed areas with soap and water. If irritation or redness develops or persists, seek medical attention.

Inhalation

Remove to fresh air if effects occur and seek medical attention.

Eyes

Exposed eyes should be immediately flushed with copious amounts of water using a steady stream for a minimum of 15 minutes. If irritation, pain, swelling or tearing develops, seek medical attention.

Notes To Physician

There is no specific antidote. Treatment should be directed at the control of symptoms and clinical conditions.

Confidential Business 00035737

STP® Heavy Duty Brake Fluid, DOT 3

5 FIRE FIGHTING MEASURES

Flash Point (Method)	250-275 °F (121-135 °C) PMCC
Upper Flammable Limit	Not determined
Lower Flammable Limit	Not determined
Extinguishing Media	Use water fog, foam, alcohol foam, carbon dioxide or dry chemical.
Special Firefighting Procedures	Use self contained breathing apparatus and full protective clothing. Use water to cool fire-exposed containers. A direct stream of water or foam may cause frothing.
Unusual Fire and Explosion Hazards	None
Combustion Decomposition	Burning can produce carbon dioxide, carbon monoxide and oxides of nitrogen.
Auto-ignition Temperature	Not determined
Explosion Data	None determined.

6 ACCIDENTAL RELEASE MEASURES

Spill

Wear appropriate personal protective equipment. Collect material with suitable absorbent material. Place into an appropriate container for disposal. Keep out of sewers and waterways.

7 HANDLING AND STORAGE

Handling Procedures

- Avoid contact with eyes.
- Avoid prolonged skin contact.
- Wash exposed skin with soap and water after use.
- Avoid breathing vapors and mists.
- Use only with adequate ventilation.
- Keep away from excessive heat or open flames
- Do not add nitrites or other nitrosating agents. A nitosamine, which may cause cancer, may be formed.

Storage Procedures

- Store in a cool, well ventilated area. Keep container tightly closed when not in use.

Confidential Business Information 00035738

STP® Heavy Duty Brake Fluid, DOT 3

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Procedures	General ventilation should be adequate for normal use. For operations where the product is heated or misted and exposures may be excessive, mechanical ventilation such as local exhaust may be needed to minimize exposure.
Gloves Protection	Chemical resistant gloves such as PVC coated gloves are recommended to prevent prolonged/repeated skin contact.
Eye Protection	Splash proof goggles are recommended to prevent eye contact.
Respiratory Protection	None needed under normal use conditions. For operations where the exposures may be excessive, a NIOSH/MSHA approved organic vapor respirator with a dust/mist pre-filter or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.
Clothing Recommendation	Protective clothing if needed to avoid prolonged / repeated skin contact. Suitable washing and eye flushing facilities should be available in the work area. Contaminated clothing should be removed and laundered or dry-cleaned before re-use.

9 PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure	Not determined
pH	Not determined
Specific Gravity	1.02-1.05
Water Solubility	100%
Vapor Density	Not determined
Evaporation Rate	Not determined
Odor	Characteristic odor
Appearance	Clear amber to yellow liquid
Viscosity	Not determined
Boiling Point	Greater than 430 °F
Freezing Point	Less than -40 °F

10 STABILITY AND REACTIVITY

tability	Stable
Incompatibility	Avoid strong oxidizing agents and peroxides.

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STP® Heavy Duty Brake Fluid, DOT 3

10 STABILITY AND REACTIVITY (continued)

Conditions to Avoid	Contact with nitrites or other nitrosating agents may produce nitrosamine, a known animal carcinogen.
Polymerization	Will not occur
Hazardous Decomposition	Burning can produce carbon monoxide, carbon dioxide, and oxides of nitrogen.

11 TOXICOLOGICAL INFORMATION

Oral Toxicity	Accidental ingestion of a small amount may cause gastrointestinal discomfort with nausea, vomiting and diarrhea. A large ingestion may produce central nervous system depression and kidney and liver damage.
Eye Irritation	May cause moderate to severe eye irritation and possible corneal damage.
Skin Irritation	Prolonged or repeated exposure may cause skin irritation.
Dermal Toxicity	A single prolonged exposure is not likely to result in material being absorbed in harmful amounts. Prolonged or repeated skin exposure to a very large amount of some of the ingredients of this formulation may cause drowsiness.
Inhalation Toxicity	High concentrations of vapors may cause respiratory irritation experienced as nasal discomfort and discharge.
Acute Toxicity Values	Product: No information available.
Sensitization	No evidence of sensitization from available data.
Chronic Toxicity	Prolonged or repeated skin contact with this product may possibly lead to irritation and dermatitis. Prolonged or repeated inhalation or ingestion may lead to central nervous system, gastrointestinal disturbances and possible adverse reproductive effects.
Medical Conditions Aggravated by Exposure	A knowledge of the available toxicology information and of the physical and clinical properties of this material suggests that overexposure is unlikely to aggravate existing medical conditions.
Carcinogenicity	None of the components of this product is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.
Mutagenicity	No evidence of mutagencity from available data.
Reproductive Toxicity and Teratogenicity	Minor components of this products, when tested separately, have resulted in fetal toxicity in animal studies. One component caused birth defects in animals following ingestion of large doses.

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STP® Heavy Duty Brake Fluid, DOT 3

12	ECOLOGICAL INFORMATION
Aquatic/Terrestrial Toxicity Environmental Fate	No data is available at this time.

13	DISPOSAL CONSIDERATIONS
Waste Disposal	Incinerate, recycled, treat or landfilled in accordance with federal, state and local regulations.

14	TRANSPORT INFORMATION
U.S. DOT Non-Bulk Shipping Description	None - Not Regulated
ID Number	None
Hazard Class	None
Packing Group	None
Label	None
Markings	None
Placards	None
IMDG Code Shipping escription	NONE - NOT REGULATED
ID Number	NONE
Hazard Class	NONE
Packing Group	NONE
Label	NONE
Placards	NONE
IMDG PG	NONE
Air - IATA Shipping Description	None - Not regulated
Technical Name	None
ID Number	None
Hazard Class	None
Packing Group	None
Markings	None
Label	None

15	REGULATORY INFORMATION
U.S. TSCA Inventory/ other TSCA Regulations.	All of the components of this product are listed on the TSCA inventory. This product is subject to export notification.
SARA Ext. Haz. Subst.	None.

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STP® Heavy Duty Brake Fluid, DOT 3

15 REGULATORY INFORMATION (continued)

SARA Section 313

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (SARA 313 - Toxic Chemical Release Reporting)

Chemical Name	CAS#	Weight %
Glycol Ethers	Not available	85-100

CERCLA Hazardous Substances (Section 103)/RQ

This product is not subject to CERCLA reporting requirements, however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65

This product does not contain chemicals regulated under California Proposition 65.

Canada

All of the components of this product are listed on the Canadian Domestic Substances List (DSL).

EEC EINECS

All of the ingredients are listed on the EINECS inventory.

16 OTHER INFORMATION

NFPA Code

Health: 2 Fire: 1 Reactivity: 1

HMIS Code

Health: 2* Fire: 1 Reactivity: 1

Precautionary Labels

Observe all requirements of plant, company or government regulations. "Empty" containers retain product residue and can be hazardous. Keep out of the reach of children. Do not take internally.

Revision Indicators

Supersedes: July 23, 1999 Revised Sections: Sections 2 (Composition)

General

This MSDS is directed to professional users and bulk handlers of the product or its ingredients. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations and in some instances might differ from the information provided herein.

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00035742

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Material Safety Data Sheet (MSDS)

NAPA Brake Fluid DOT 3

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MATERIAL SAFETY DATA SHEET
Effective Date: 11-15-99 Revision Date: none
NAPA Brake Fluid DOT 3
Code: CST Page: 1

==========

Section 1 - Product and Company Identification

PRODUCT NAME: NAPA Brake Fluid DOT 3

MANUFACTURER'S NAME: EMERGENCY TELEPHONE NUMBER
Coastal Uni-Lube Inc. (713)877-1400
9 Greenway Plaza
Houston, TX 77046 MISCELLANEOUS INFORMATION

==========

Section 2 - Hazardous Ingredients

Product Name	CAS #	Wt.	OSHA PEL	ACGIH TLV	Other	Units
Coastal S. H. D. Brake Fluid Mixture DOT3		100%	NA	NA		
Ingredients Blend of various Glycol Ethers, Glycol and Polyglycol	NA-P	100%	NA	NA	NA	PPM

NA= Not Available
NA-P= Information is claimed proprietary by supplier
STEL= Short Term Exposure Limit; 15 Minutes

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MATERIAL SAFETY DATA SHEET
Effective Date: none Revision Date: none
NAPA Brake Fluid DOT 3
Code: CST Page: 2

==========

Section 3 - Hazards Indentification

This product has not been tested as a whole to determine its specific hazards. The information provided in this section is based on health hazard information on the product components.

Effects of overexposure:
Acute:
EYES: May cause severe eye irritation and chemical burns.
SKIN: Slightly irritating to the skin. Harmful amounts may be absorbed through the skin with extensive and prolonged contact.
INHALATION: Exposure to vapors or mist may result in irritation of the respiratory tract, headache, drowsiness and dizziness. High concentrations of ethylene glycol ethers may be lethal.
INGESTION: May cause irritation of the mouth, throat, and the

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respiratory tract, abdominal discomfort, dizziness, lumbar pain, CNS depression, kidney and liver damage.

Chronic: Prolonged or repeated contact may result in toxic amounts being absorbed through the skin.

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No

==========

Section 4 - First Aid Measures

Eye Contact: Flush thoroughly with large amounts of water for at least 15 minutes, including underthe eye lids. Contact a physician immediately, preferably an opthamologist. Speed and thoroughness in rinsing eyes are important to avoid permanent injury.

Skin Contact: Remove contaminated clothing. Wash affected areas with soap and water. If irritation occurs, get medical help. Discard contaminated shoes.

Inhalation: Remove to fresh air. If breathing has stopped, apply artificial respiration. Get immediate medical attention.

Ingestion: Never give anything by mouth to an unconsious or convulsing person. Have the affected person, if conscious, drink 1 to 2 glasses of water, then induce vomiting. Get immediate medical attention.

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Section 5 - Firefighting Measures

Flash Point:	>200 F
Flammable Limits in Air % by Vol.:	Lower: N.A. Upper: N.A.
Autoignition Temperature:	N.A.
Extinguishing Media:	Dry chemical, foam, carbon dioxide

Special Fire Fighting Procedure: Water spray may be used to keep fire-exposed containers cool, preventing pressure build up and explosion. Firefighters should wear self-contained breathing apparatus.

Unusual Fire or Explosion Hazard: May ignite when sufficient heat is applied.

==========

Section 6 - Environmental Release Measures

Spill Procedures: Remove sources of heat or ignition including internal combustion engines and power tools. Remove spill with vacuum trucks or pump and soak up residue with an absorbent. Use approved respirator where occupational exposure limits may be exceeded.

==========

Section 7 - Handling and Storage

Store in tightly closed aontainers in an dry place, away from incompatible materials or sources of heat, ignition or strong oxidizers. Ground and bond all transfer and storage equipment. Empty containers may contain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, puncture, incinerate, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks or other sources of ignition.

==========

Section 8 - Exposure Controls/Personal Protection

Eye Protection: Remove contact lenses and wear chemical safety goggles where contact with liquid or mist may occur.

Skin Protection: Wear impervious gloves when contact with skin may occur. Use face shield where splashing may occur. Wash with soap and water before

Confidential Business Information 00035659

eating, drinking and smoking. Launder contaminated clothing before reuse.

Inhalation: Use approved respiratory protective equipment for cleaning large spills or entry into large tanks, vessels or other confined spaces or in situations where exposure may exceed occupational exposure levels.

Ventilation: Provide adequate general and local exhaust ventilation: (1) to keep mist and vapors below occupational exposure levels; and (2) to prevent the formation of an oxygen deficient atmosphere, particularly in a confined space.

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Section 9 - Physical and Chemical Properties

Boiling Point 760 mmHg:	401 F	Melting Point:	N.A.
Vapor Pressure mmHg @ 100F:	<0.1	Vapor Density (air=1):	N.A.
Solubility in H2O %:	Soluble	pH:	N.A.
Specific Gravity(H2O):	1.02-1.04	Evaporation Rate: (ethyl ether=1):	N.A.
% Volatile by Volume:	N.A.		
Viscosity (method, temp):	N.A.		

Appearance: Clear liquid Odor: Mild ether odor
N.A. = Not Available

==========

Section 10 - Stability and Reactivity

Stability: Stable
Hazardous Polymerization: Will not occur.
Conditions to Avoid/Incompatibility: Strong oxidizing agents, heat, spark, flame and build-up of static electricity.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, water and/or oxygenated hydrocarbons.

==========

Section 11 - Toxicological Information

Persons with preexisting resperatory, liver, kidney, eye or skin diseases may be adversely affected by this product. Ethylene glycol and ethylene glycol ethers have produced dose-related teratogenic effects and maternal toxicity in laboratory animals. Exposure to vapors of ethylene glycol ethers have caused testicular atrophy in laboratory animals.

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Section 12 - Ecological Information

No information.

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Section 13 - Disposal Considerations

Waste Disposal: Dispose through a licensed waste disposal company. Follow federal, state and local regulations.

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Section 14 - Transport Information

Not applicable.

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Section 15 - Regulatory Information

SARA TITLE III INFORMATION

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Section 311/312 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive
X	X			

SARA Hazardous Substances

Ingredient	CAS No.	%, wt	Sec 313	Sec 302	RQ, lb	TPQ, lb
Ethylene Glycol	110-80-5	NA	X			
Glycol Ethers	various	<75	X			

Key: Sec 313 = Toxic Chemicals, Section 313
Sec 302 = Extremely Hazardous Substances (EHS)
RQ = Reportable Quantity of EHS
TPQ = Threshold Planning Quantity of EHS

==========

Section 16 - Other Information

CALIFORNIA PROPOSITION 65 WARNING

Chemicals known to the State of California to cause cancer, birth defects or other reproductive harm may be found in the petroleum products. Although it is possible to sufficiently refine the petroleum products to remove the potential for cancer, we are advising that one or more of the listed chemicals may be present in some detectable quantities. Read and follow directions and use care when handling these petroleum products.

THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF THIS COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABLENESS AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

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Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29CFR 1910 1200 Standard must be consulted for specific requirements

OSPHO METAL TREATMENT

QUICK IDENTIFIER
Common Name (used on label and list)

SECTION 1 –

Manufacturer's Name: THE SKYBRYTE COMPANY

Address: 3125 PERKINS AVENUE

City, State, and ZIP: CLEVELAND, OHIO 44114

Emergency Telephone No: 800-424-9300 (CHEMTREC)

Other Information Calls: 703-527-3887 (CHEMTREC DIRECT)
216-771-1590 (SKYCO)

Signature of Person Responsible for Preparation (Optional): S. L. PITCHER

Date Prepared: MARCH 26, 2007

SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common name(s))	OSHA PEL	ACGIH TLV	Other Exposure Limits	% (optional)	CAS NO
PHOSPHORIC ACID SOLUTION (75%)	1 mg/m^3	1 mg/m^3	3 mg/m^3 STEL	45.0%	7664-38-2

Section 313 Supplier Notification: This product contains the following toxic chemicals subject to the requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (4O CFR 372) :

VOC = 0%

CHEMICAL NAME:		% BY WIEGHT	DOT Hazard: Class 8
PHOSPHORIC ACID SOLUTION (75%)	CAS# 7664-38-2	45.0%	UN# 1805 PG III

All ingredients of this product are listed in compliance withSection 15 of the Toxic Substance Control Act (T.S.C.A.)

This information should be included in all MSDS sheets that are distributed.

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: 240F

Specific Gravity (H_2O=1): 1.22+/-.04

Vapor Pressure (mm Hg): UNK

Vapor Density (Air = 1): N/A

Solubility in Water: 100% pH < 2 (strong acid)

Reactivity in Water: NONE

Appearance and Odor: GREEN LIQUID WITH TYPICAL ACIDIC ODOR

Melting Point: N/A

SECTION 4 – FIRE & EXPLOSION DATA

Flash Point: N/A C

Method Used: NON-FLAMMABLE

Flammable Limits in Air % by Volume: LEL Lower N/A UEL Upper N/A

Auto-Ignition Temperature: N/A

Extinguisher Media: N/A

Special Fire Fighting Procedures: N/A

Unusual Fire and Explosion Hazards: MAY DECOMPOSE TO RELEASE OXYGEN AROUND 400C (750F). WILL PRODUCE IRRITATING PHOSPHORIC OXIDE FUMES UNDER FIRE CONDITIONS.

SECTION 5 – PHYSICAL HAZARDS (REACTIVITY DATA)

Stability: Unstable ☐ / Stable ☒ — Conditions to Avoid: AVOID CONTACT WITH STRONG ALKALIES

Incompatability (Materials to Avoid): REACTION WITH METALS WILL LIBERATE HYDROGEN GAS. (EXTREMELY FLAMMABLE!)

Hazardous Decomposition Products: PHOSPHORIC ACID FUMES. (STRONG IRRITANT)

Hazardous Polymerization: May Occur ☐ / Will Not Occur ☒ — Conditions to Avoid: AVOID CONTACT WITH STRONG ALKALIES. (WILL PRODUCE VIOLENT ACID/BASE NEUTRALIZATION REACTION.)

SECTION 6 – HEALTH HAZARDS

1 Acute: STRONG IRRITANT - SLIGHTLY TOXIC

2 Chronic: SLIGHTLY TOXIC - CAUSES BURNS TO EXPOSED TISSUI

Signs and Symptoms of Exposure: LIQUID IS CORROSIVE TO EYES AND SKIN, MIST PRODUCES IRRITATION TO EYES, THROAT, AND LUNGS.

Medical Conditions Generally Aggravated by Exposure: EMPHYSEMA, ASTHMA OR OTHER CONDITIONS RESULTING IN DECREASED RESPIRATORY FUNCTION.

Chemical Lasted as Carcinogen or Potential Carcinogen:

	Yes	No
National Toxicology Program	☐	☒
I A R C Monographs	☐	☒
OSHA	☐	☒

Emergency and First Aid Procedures: CALL A PHYSICIAN IMMEDIATELY, INGESTION - GIVE LARGE QUANTITIES OF WATER. " DO NOT INDUCE VOMITING" SKIN AND EYES - FLUSH WITH WATER

ROUTES OF ENTRY

1 Inhalation: YES

2 Eyes: YES

3 Skin: YES

4 Ingestion: PRIMARY HAZARD

SECTION 7 – SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage: USE GOGGLES AND/OR FACE SHIELDS, RUBBER APRONS, GLOVES AND BOOTS WHERE SPLASHING OR LIQUID CONTACT MAY BE EXPECTED.

Other Precautions: AIRBORNE MIST - USE NIOSH/MSHA ACID GAS RESPIRATOR WITH FULL FACE PIECE. KEEP STORED IN SUITABLE CONTAINER.

Steps to be Taken in Case Material is Released or Spilled: WEAR SUITABLE PROTECTIVE CLOTHING. EYE PROTECTION, AND RESPIRATOR. NEUTRALIZE WITH SODA ASH AND FLUSH THE AREA WITH LARGE AMOUNTS OF WATER.

Waste Disposal Methods (Consult federal, state, and local regulations): NEUTRALIZE WITH SODA ASH OR LIME AND DISCHARGE INTO A TREATMENT SYSTEM IN ACCORDANCE WITH LOCAL REGULATIONS.

SECTION 8 – SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection (Specify Type): NIOSH/MSHA ACID GAS WITH FULL FACE PIECE.

Ventilation: Local Exhaust: ADEQUATE TO MEET PEL; Mechanical (General): N/A; Special: N/A; Other: N/A

Protective Gloves: ACID RESISTANT

Eye Protection: CHEMICAL GOGGLES

Other Protective Clothing or Equipment: RUBBER APRON AND BOOTS AS NECCESSARY.

Work/Hygienic Practices: STORE AND HANDLE AS STRONG ACID. WASH BEFORE EATING OR DRINKING.

IMPORTANT
Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

Get the most comprehensive
MSDS/HazCom program on the market!

Material Safety Data Sheet

SECTION I - Material Identity
SECTION II - Manufacturer's Information
SECTION III - Physical/Chemical Characteristics
SECTION IV - Fire and Explosion Hazard Data
SECTION V - Reactivity Data
SECTION VI - Health Hazard Data
SECTION VII - Precautions for Safe Handling and Use
SECTION VIII - Control Measures
SECTION IX - Label Data
SECTION X - Transportation Data
SECTION XI - Site Specific/Reporting Information
SECTION XII - Ingredients/Identity Information

SECTION I - Material Identity

Item Name	
Part Number/Trade Name	300016/300064/300055 PENCOOL 3000 CUTTING FLUID
National Stock Number	6850010854717
CAGE Code	OWT79
Part Number Indicator	A
MSDS Number	185790
HAZ Code	B

SECTION II - Manufacturer's Information

Manufacturer Name	PENRAY COMPANIES
Street	440 DENNIXTON COURT
City	WHEELING
State	IL
Country	US
Zip Code	60090
Emergency Phone	800 424-9300 CHEMTREC
Information Phone	847 459-5000

MSDS Preparer's Information

Date MSDS Prepared/Revised	15MAR99
Active Indicator	N

Alternate Vendors

SECTION III - Physical/Chemical Characteristics

Hazard Storage Compatibility Code	NR
NRC License Number	NR
Net Propellant Weight (Ammo)	NR
Appearance/Odor	NO ODOR, RED LIQUID
Boiling Point	212-215F
Melting Point	< 32 F
Vapor Pressure	NR
Vapor Density	NR
Specific Gravity	1.0956
Decomposition Temperature	NR
Evaporation Rate	NR
Solubility in Water	COMPLETELY
Percent Volatiles by Volume	NR
Chemical pH	12.0
Corrosion Rate	NR
Container Pressure Code	1
Temperature Code	4
Product State Code	L

SECTION IV - Fire and Explosion Hazard Data

Flash Point Method	UNK
Lower Explosion Limit	NG
Upper Explosion Limit	NG
Extinguishing Media	CARBON DIOXIDE, DRY CHEM, FOAM
Special Fire Fighting Procedures	WEAR SCBA AND FULL PROTECTIVE CLOTHING
Unusual Fire/Explosion Hazards	NONE KNOWN

SECTION V - Reactivity Data

Stability	YES
Stability Conditions to Avoid	EXCESSIVE HEAT AND OPEN FLAMES
Materials to Avoid	STRONG OXIDIZING AGENTS

Hazardous Decomposition Products	NR
Hazardous Polymerization	NO
Polymerization Conditions to Avoid	WILL NOT OCCUR
LD50 - LD50 Mixture	NR

SECTION VI - Health Hazard Data

Route of Entry: Skin	YES
Route of Entry: Ingestion	YES
Route of Entry: Inhalation	YES
Health Hazards - Acute and Chronic	[EYES] IRRITATION [SKIN] IRRITATION, DERMITITIS [INHAL] NON-VOLATILE, INHALATION HAZARD UNLIKELY [INGEST] GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA
Carcinogenity: NTP	NO
Carcinogenity: IARC	NO
Carcinogenity: OSHA	NO
Explanation of Carcinogenity	NOT CONSIDERED A CARCINOGEN
Symptoms of Overexposure	[EYES] IRRITATION [SKIN] IRRITATION, DERMITITIS [INHAL] NON-VOLATILE, INHALATION HAZARD UNLIKELY [INGEST] GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA
Medical Cond. Aggrevated by Exposure	NR
Emergency/First Aid Procedures	[EYES] FLUSH W/ WATER FOR 15 MINUTES [SKIN] WASH W/ SOAP AND WATER, REMOVE CONTAMINATED CLOTHING, LAUNDER BEFORE REUSE [INHAL] REMOVE TO FRESH AIR [INGEST] INDUCE VOMITING, NEVER GIVE ANYTHING TO AN UNCONSCIOUS PERSON

SECTION VII - Precautions for Safe Handling and Use

Steps if Material Released/Spilled	CLEAN-UP PERSONNEL SHOULD WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT. CLEAN WITH INERT ABSORBANT AND PLACE IN RECOVERY DRUMS FOR DISPOSAL
Neutralizing Agent	NR
Waste Disposal Method	DISPOSE IAW FEDERAL, STATE, LOCAL REGS
Handling and Storage Precautions	STORE IN CLEAN, DRY LOCATIONS AWAY FROM EXCESSIVE HEAT
Other Precautions	DO NOT GET INTO EYES, ON SKIN,

	OR ON CLOTHING

SECTION VIII - Control Measures

Respiratory Protection	NONE REQUIRED
Ventilation	GENERAL VENTILATION. MATERIAL NON-VOLATILE
Protective Gloves	CHEMICAL RESISTANT
Eye Protection	CHEM GOGGLES
Other Protective Equipment	NR
Work Hygenic Practices	WASH HANDS AFTER USE
Supplemental Health/Safety Data	NR

SECTION IX - Label Data

Protect Eye	YES
Protect Skin	YES
Protect Respiratory	YES
Chronic Indicator	NO
Contact Code	UNKNOWN
Fire Code	UNKNOWN
Health Code	UNKNOWN
React Code	UNKNOWN
Specific Hazard and Precaution	NO TARGET ORGANS LISTED

SECTION X - Transportation Data

Container Quantity	1
Unit of Measure	PT

SECTION XI - Site Specific/Reporting Information

Volatile Organic Compounds (P/G)	0
Volatile Organic Compounds (G/L)	0

SECTION XII - Ingredients/Identity Information

Ingredient #	01
Ingredient Name	SODIUM HYDROXIDE
CAS Number	1310732
Proprietary	NO
Percent	1

OSHA PEL	1 MG/M3
ACGIH TLV	1 MG/M3
Ingredient #	02
Ingredient Name	SODIUM NITRITE
CAS Number	7631994
Proprietary	NO
Percent	0
Ingredient #	03
Ingredient Name	SODIUM NITRITE (ESTIMATE%)
CAS Number	7632000
Proprietary	NO
Percent	5
Ingredient #	04
Ingredient Name	WATER
CAS Number	7732185
Proprietary	NO
Percent	0
Ingredient #	05
Ingredient Name	SODIUM TETRABORATE
CAS Number	1330434
Percent	0

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1301 E. 9th Street, #700
Cleveland OH 44114
(800) 726-9626

Barnes Distribution

Material Safety Data Sheet

MSDS Form No. : MSDS8889474
Item No. : C87370, C8889474

**** MATERIAL SAFETY DATA SHEET ****

PERMATEX(R) BLACK SILICONE ADHESIVE SEALANT

Part # MSDS8889474

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: PERMATEX(R) BLACK SILICONE ADHESIVE SEALANT
Product CAS: (none)
Product Code:
Synonyms: 87370; 8889474; C87370; C8889474; PERMATEX(R) BLACK SILICONE ADHESIVE SEALANT
Company Identification:
Name: LOCTITE CORPORATION
Address: 4450 CRANWOOD PKY.
Address:
City: CLEVELAND State: OH Zip: 44128
For information, call: (203) 571-5100
Emergency Number:
Emergency Agency:
Number:
MSDS Creation Date: 1/2/2006
Supersedes Date: 1/1/2003
Miscellaneous:
PRODUCT/TRADE NAME(S): 8889474

CAS #: N/A

CHEMICAL NAME: N/A

BRIEF DESCRIPTION: PRODUCT TYPE: RTV SILICONE.

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

Chemical Name	CAS	MIN	MAX
ACETIC ACID	64-19-7	5	5
CARBON BLACK	1333-86-4	1	1
ETHYLTRIACETOXYSILANE	17689-77-9	5	5
METHYLTRIACETOXYSILANE	4253-34-3	5	5
POLY (DIMETHYLSILOXANE), DIMETHYL	63148-62-9	90	90
SILICA, AMORPHOUS TREATED	112945-52-5	10	10

Miscellaneous:
COMPOSITION:
ACETIC ACID - WHEN THIS PRODUCT IS EXPOSURE TO MOISTURE, 3-5% ACETIC ACID MAY BE FORMED.

TOXICITY:
EYE AND SKIN IRRITANT. ORAL LD50 MORE THAN 10,000 MG/KG

EXPOSURE LIMITS (TWA):

INGREDIENT	ACGIH TLV	OSHA PEL	OTHER
SILICA, AMORPHOUS TREATED	10 MG/M3 TWA	6 MG/M3 TWA	NONE
CARBON BLACK	3.5 MG/M3 TWA	3.5 MG/M3 TWA	5 PPM
ACETIC ACID	10 PPM TWA 25 MG/M3	10 PPM TWA 25 MG/M3	NONE

EXPOSURE LIMITS (STEL):

INGREDIENT	ACGIH TLV	OSHA PEL
ACETIC ACID	15 PPM	NONE

37 MG/M3

INGREDIENTS FOR WHICH NO EXPOSURE LIMITS HAVE BEEN ESTABLISHED ARE NOT LISTED ABOVE.

Lbs of VOC per Gallon Coating (minus water): 0.40125
Coating Density (lbs/gal): 0
Solvent Density (lbs/gal): 0
Percent Solvent (volume): 0
Percent Solids (volume): 0
Percent Water (volume): 0

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

NFPA: Health: 2 Fire: 1 Reactivity: 1 Other:
HMIS: Health: 2 Fire: 1 Reactivity: 1 Special Protection:

POTENTIAL HEALTH EFFECTS

Target Organs:

Eye:
SIGNS AND SYMPTOMS: ACETIC ACID PRODUCED DURING CURE IRRITATES EYES. EXISTING

CONDITIONS
AGGRAVATED BY EXPOSURE: METHYLTRIACETOXYSILANE: EYE DISORDERS.

Skin:
EXISTING CONDITIONS AGGRAVATED BY EXPOSURE: METHYLTRIACETOXYSILANE: SKIN DISORDERS.

Ingestion:

Inhalation:
SIGNS AND SYMPTOMS: ACETIC ACID PRODUCED DURING CURE IRRITATES NOSE AND THROAT. EXISTING
CONDITIONS AGGRAVATED BY EXPOSURE: CARBON BLACK - RESPIRATORY DISORDERS. METHYLTRIACETOXYSILANE - PULMONARY DISORDERS.

Miscellaneous:

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

Eye:
FLUSH AT LEAST 15 MINUTES WITH WATER. OBTAIN MEDICAL ATTENTION.

Skin:
WIPE OFF PASTE WITH PAPER TOWEL OR CLOTH. WASH EXPOSED AREA WITH SOAP AND WATER. FLUSH AT
LEAST 15 MINUTES WITH WATER. OBTAIN MEDICAL ATTENTION.

Ingestion:
DO NOT INDUCE VOMITING. KEEP INDIVIDUAL CALM. OBTAIN MEDICAL ATTENTION.

Inhalation:
REMOVE TO FRESH AIR. TREAT SYMPTOMATICALLY.

Notes to Physician:

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

Unusual Fire and Explosion Hazards:
NONE. COMPRESSED GASES: NONE. PRESSURE AT ROOM TEMP: DOES NOT APPLY.

Special Fire Fighting Procedures:
ACETIC ACID, FORMALDEHYDE, SILICA FUME.

Extinguishing Media:
CARBON DIOXIDE, FOAM, DRY CHEMICAL.

Flash Point:
MORE THAN 200 F. METHOD: TAG CLOSED CUP

Flammable Limits:
Lower Limit:
(LEL): ACETIC ACID 4%
Upper Limit:
(UEL): ACETIC ACID: 19.9% AT 200 F

AutoIgnition Temperature:
N.A.

General Information:
FLAMMABLE LIMITS: NO DATA

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

Disposal:
CURED RUBBER CAN BE INCINERATED. FOLLOW EPA LOCAL REGULATIONS.

Spills/Leaks:
WIPE OR SCRAPE UP SPILLED MATERIAL. MAINTAIN GOOD VENTILATION FOR LARGE SPILLS. PLACE SCRAP
MATERIAL IN A WELL VENTILATED PLACE AND ALLOW TO CURE TO RUBBER.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Storage:
STORE IN A DRY AREA BELOW 90 F. KEEP CONTAINER CLOSED WHEN NOT IN USE. (CONTACT LOCTITE
CUSTOMER SERVICE 1-800-243-4874 FOR SHELF LIFE INFORMATION). HANDLING: AVOID EYE OR SKIN
CONTACT. AVOID BREATHING VAPOR.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
LOCAL EXHAUST: PROVIDE LOCAL VENTILATION FOR PROLONGED USE IN CONFINED AREA.

Eyes:
SAFETY GLASSES OR GOGGLES.

Skin:
PROTECTIVE GLOVES: RUBBER OR PLASTIC GLOVES.

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Clothing:

Respirators:

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

Appearance/Odor:
BLACK PASTE; ACETIC ACID.

pH: DOES NOT APPLY
Vapor Pressure: (MM HG.): LESS THAN 5 MM AT 70 F
Vapor Density: (AIR = 1): NOT AVAILABLE
Evaporation Rate: NOT AVAILABLE
Viscosity: N.A.
Boiling Point: NOT APPLICABLE, POLYMERIC MATERIAL
Freezing/Melting Point: N.A.
Decomposition Temperature: N.A.
Solubility: IN WATER: POLYMERIZED
Specific Gravity: 1.07
Molecular Formula: N.A.
Molecular Weight: N.A.
Miscellaneous:
% VOLATILE / VOLUME: NO DATA

VOLATILE ORGANIC COMPOUND (EPA METHOD 24): 4.5%; 48.15 G/L.

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

Chemical Stability:
YES

Conditions to Avoid:

Incompatibilities with Other Materials:
POLYMERIZED BY CONTACT WITH MOISTURE. ACETIC ACID LIBERATED.

Hazardous Decomposition Products:
NON-THERMAL: NONE

Hazardous Polymerization:
MAY OCCUR: NO

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

Toxicological Information:
LITERATURE REFERENCED

TARGET ORGAN AND OTHER HEALTH EFFECTS:
POLY(DIMETHYLSILOXANE), DIMETHYL: IRRITANT. CARCINOGEN - NO.

SILICA, AMORPHOUS TREATED: NUISANCE DUST. CARCINOGEN - NTP, OSHA - NO. IARC - N/A.

ETHYLTRIACETOXYSILANE: NO DATA. CARCINOGEN - NO.

METHYLTRIACETOXYSILANE: NO DATA. CARCINOGEN - NO.

CARBON BLACK: RESPIRATORY SYSTEM. CARCINOGEN - NTP, OSHA - NO. IARC - N/A

ACETIC ACID: CORROSIVE; EYES; GASTROINTESTINAL; IMMUNE SYSTEM; IRRITANT. CARCINOGEN - NO.

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

Ecological Information:

**** SECTION 13 - OTHER PRECAUTIONS ****

Other Precautions:

Work/Hygienic Practices:

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

Transportation Information:
CATEGORY: UNRESTRICTED

SHIPPING REGULATIONS:
DOT (49 CFR 172)
DOMESTIC GROUND TRANSPORT
PROPER SHIPPING NAME: UNRESTRICTED
HAZARD CLASS OR DIVISION: UNRESTRICTED
IDENTIFCATION NUMBER: NONE
MARINE POLLUTANT: NONE

IATA
PROPER SHIPPING NAME: UNRESTRICTED
CLASS OR DIVISION: UNRESTRICTED
UN OR ID NUMBER: NONE

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Label Information:

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

Regulatory Information:

****** SECTION 16 - ADDITIONAL INFORMATION ******

Additional Information:

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DOD Hazardous Materials Information System
DoD 6050.5-L
AS OF July 1998

FSC: 8040
NIIN: 00N021891
Manufacturer's CAGE: 11111
Part No. Indicator: A
Part Number/Trade Name: POLYPOXY WHITE AND COLORS PART A, 4170

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General Information

==========

Item Name:
Company's Name: PETTIT PAINT CO INC
Company's Street: 36 PINE ST
Company's P. O. Box:
Company's City: ROCKAWAY
Company's State: NJ
Company's Country: US
Company's Zip Code: 07866
Company's Emerg Ph #: 800-548-0489
Company's Info Ph #: 201-625-3100
Distributor/Vendor # 1:
Distributor/Vendor # 1 Cage:
Distributor/Vendor # 2:
Distributor/Vendor # 2 Cage:
Distributor/Vendor # 3:
Distributor/Vendor # 3 Cage:
Distributor/Vendor # 4:
Distributor/Vendor # 4 Cage:
Safety Data Action Code:
Safety Focal Point: N
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 001
Status: SMJ
Date MSDS Prepared: 16MAY89
Safety Data Review Date: 08NOV91
Supply Item Manager:
MSDS Preparer's Name:
Preparer's Company:
Preparer's St Or P. O. Box:
Preparer's City:
Preparer's State:
Preparer's Zip Code:
Other MSDS Number:
MSDS Serial Number: BLMNW
Specification Number:
Spec Type, Grade, Class:
Hazard Characteristic Code: F3
Unit Of Issue:
Unit Of Issue Container Qty:
Type Of Container:
Net Unit Weight:

Report for NIIN: 00N021891

NRC/State License Number:
Net Explosive Weight:
Net Propellant Weight-Ammo:
Coast Guard Ammunition Code:

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Ingredients/Identity Information

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==========
Proprietary: NO
Ingredient: XYLENES (O-,M-,P- ISOMERS) (SARA III)
Ingredient Sequence Number: 01
Percent: 8-17
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: ZE2100000
CAS Number: 1330-20-7
OSHA PEL: 100 PPM/150 STEL
ACGIH TLV: 100 PPM/150STEL;9192
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: METHYL ISOBUTYL KETONE (SARA III)
Ingredient Sequence Number: 02
Percent: 14-20
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: SA9275000
CAS Number: 108-10-1
OSHA PEL: 100 PPM/75 STEL
ACGIH TLV: 50 PPM/75 STEL; 9293
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: RUTILE; (TITANIUM DIOXIDE). LD50: ORL(RAT) >9500 MG/KG.
Ingredient Sequence Number: 03
Percent: 0-45
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: VM2940000
CAS Number: 1317-80-2
OSHA PEL: 15 MG/M3 TDUST
ACGIH TLV: 10 MG/M3 TDUST
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CARBON BLACK
Ingredient Sequence Number: 04
Percent: 0-4
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: FF5800000
CAS Number: 1333-86-4
OSHA PEL: 3.5 MG/M3
ACGIH TLV: 3.5 MG/M3; 9192

Report for NIIN: 00N021891

Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CADMIUM SULFOSELENIDE. LD50: ORL(RAT) >10,000 MG/KG.
Ingredient Sequence Number: 05
Percent: 0-15
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: 1003454CS
CAS Number: 58339-34-7
OSHA PEL: NOT APPLICABLE

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ACGIH TLV: NOT APPLICABLE
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: BARIUM SULFATE
Ingredient Sequence Number: 06
Percent: 0-10
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: CR0600000
CAS Number: 7727-43-7
OSHA PEL: 15 MG/M3 TDUST
ACGIH TLV: 10 MG/M3 TDUST; 9293
Other Recommended Limit: N/K

Proprietary: NO
Ingredient: CALCIUM CARBONATE (MARBLE) (LIMESTONE)
Ingredient Sequence Number: 07
Percent: 0-20
Ingredient Action Code:
Ingredient Focal Point: N
NIOSH (RTECS) Number: EV9580000
CAS Number: 1317-65-3
OSHA PEL: 15 MG/M3 TDUST
ACGIH TLV: 10 MG/M3 TDUST; 9192
Other Recommended Limit: N/K
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Physical/Chemical Characteristics

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Appearance And Odor: NONE SPECIFIED BY MANUFACTURER.
Boiling Point: 241F,116C
Melting Point: N/K
Vapor Pressure (MM Hg/70 F): ING 1 & 2
Vapor Density (Air=1): HVR/AIR
Specific Gravity: N/K
Decomposition Temperature: N/K
Evaporation Rate And Ref: SLOWER THAN ETHER
Solubility In Water: N/K
Percent Volatiles By Volume: 45-50
Viscosity:
pH: N/K
Radioactivity:

Report for NIIN: 00N021891

Form (Radioactive Matl):
Magnetism (Milligauss): N/P
Corrosion Rate (IPY): N/K
Autoignition Temperature:
==========

Fire and Explosion Hazard Data

==========
Flash Point: 70.0F,21.1C
Flash Point Method: CC
Lower Explosive Limit: 1%
Upper Explosive Limit: N/K
Extinguishing Media: CO2, DRY CHEMICAL, WATER FOG.
Special Fire Fighting Proc: WEAR NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N).
Unusual Fire And Expl Hazrds: CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED W/WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH

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COULD RESULT IN CONTAINER RUPTURE.

Reactivity Data

Stability: YES
Cond To Avoid (Stability): HEAT, SPARK AND OPEN FLAME.
Materials To Avoid: STRONG OXIDIZING AGENTS.
Hazardous Decomp Products: CO AND OTHER ORGANIC COMPOUNDS.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT

Health Hazard Data

LD50-LC50 Mixture: SEE INGREDIENTS
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: CAN LEAD TO CENTRAL NERVOUS SYSTEM DEPRESSION PRODUCING SUCH EFFECTS AS HEADACHE, DIZZINESS, AND LOSS OF CONSCIOUSNESS. EYE: MAY BE IRRITATING. SKIN: CAN BE IRRITATING & CAUSE DERMATITIS. INGEST: MAY RESULT IN VOMITING. BRTHG IN ANY VOMITUS INTO LUNGS CAN CAUSE CHEMICAL PNEUMONITIS.
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NOT RELEVANT
Signs/Symptoms Of Overexp: SEE HEALTH HAZARDS.
Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.
Emergency/First Aid Proc: EYES: FLUSH W/WATER FOR A MINIMUM OF 15 MINUTES. SKIN: WASH W/SOAP & WATER. INHAL: GIVE FRESH AIR OR OXYGEN. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. INGEST: DO NOT INDUCE VOMITING. KEEP HEAD BELOW HIPS IF VOMITING OCCURS.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: ELIMINATE ALL IGNITION SOURCES. TAKE UP W/AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS. SEAL TIGHTLY.

Report for NIIN: 00N021891

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
Waste Disposal Method: PLACE IN A DISPOSAL FACILITY APPROVED UNDER RCRA REGULATIONS FOR HAZARDOUS WASTE. LABEL PROPERLY. DISPOSAL MUST BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS (FP N).
Precautions-Handling/Storing: KEEP CONTRS TIGHTLY CLOSED. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES. STORE AWAY FROM STRONG OXIDIZING AGENTS IN A COOL, DRY PLACE.
Other Precautions: MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. THIS PRODUCT CONTAINS CHEMICALS UNDER SARA TITLE III SECTION 313.

Control Measures

Respiratory Protection: IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS, USE A NIOSH/MSHA APPROVED RESPIRATOR.
Ventilation: USE PROPER VENTILATION TO KEEP VAPOR CONCENTRATION BELOW 100 PPM.
Protective Gloves: IMPERVIOUS GLOVES.
Eye Protection: CHEMICAL WORKERS GOGGLES (FP N).
Other Protective Equipment: NONE.
Work Hygienic Practices: WASH W/SOAP & WATER BEFORE EATING, DRINKING,

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SMOKING OR USING TOILET FACILITIES.
Suppl. Safety & Health Data: NONE SPECIFIED BY MANUFACTURER.

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Transportation Data

==========

Transportation Action Code:
Transportation Focal Point: N
Trans Data Review Date: 92009
DOT PSN Code: GJJ
DOT Symbol:
DOT Proper Shipping Name: FLAMMABLE LIQUIDS, N.O.S.
DOT Class: 3
DOT ID Number: UN1993
DOT Pack Group: II
DOT Label: FLAMMABLE LIQUID
DOT/DoD Exemption Number:
IMO PSN Code: HIN
IMO Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. o
IMO Regulations Page Number: 3230
IMO UN Number: 1993
IMO UN Class: 3.2
IMO Subsidiary Risk Label: -
IATA PSN Code: MBV
IATA UN ID Number: 1993
IATA Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. *
IATA UN Class: 3
IATA Subsidiary Risk Class:
IATA Label: FLAMMABLE LIQUID
AFI PSN Code: MBV
AFI Symbols:
AFI Prop. Shipping Name: FLAMMABLE LIQUIDS, N.O.S.
AFI Class: 3

Report for NIIN: 00N021891

AFI ID Number: UN1993
AFI Pack Group: II
AFI Label:
AFI Special Prov:
AFI Basic Pac Ref: 7-7
MMAC Code:
N.O.S. Shipping Name:
Additional Trans Data:

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Disposal Data

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Disposal Data Action Code:
Disposal Data Focal Point:
Disposal Data Review Date:
Rec # For This Disp Entry:
Tot Disp Entries Per NSN:
Landfill Ban Item:
Disposal Supplemental Data:
1st EPA Haz Wst Code New:
1st EPA Haz Wst Name New:
1st EPA Haz Wst Char New:
1st EPA Acute Hazard New:
2nd EPA Haz Wst Code New:
2nd EPA Haz Wst Name New:
2nd EPA Haz Wst Char New:
2nd EPA Acute Hazard New:

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3rd EPA Haz Wst Code New:
3rd EPA Haz Wst Name New:
3rd EPA Haz Wst Char New:
3rd EPA Acute Hazard New:

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Label Data

==========

Label Required: YES
Technical Review Date: 08NOV91
Label Date: 08NOV91
MFR Label Number:
Label Status: G
Common Name: POLYPOXY WHITE AND COLORS PART A, 4170
Chronic Hazard: NO
Signal Word: DANGER!
Acute Health Hazard-None:
Acute Health Hazard-Slight: X
Acute Health Hazard-Moderate:
Acute Health Hazard-Severe:
Contact Hazard-None:
Contact Hazard-Slight: X
Contact Hazard-Moderate:
Contact Hazard-Severe:
Fire Hazard-None:
Fire Hazard-Slight:
Fire Hazard-Moderate:
Fire Hazard-Severe: X

Report for NIIN: 00N021891

Reactivity Hazard-None: X
Reactivity Hazard-Slight:
Reactivity Hazard-Moderate:
Reactivity Hazard-Severe:
Special Hazard Precautions: HIGHLY FLAMMABLE.ACUTE: INHALATION CAN LEAD TO CENTRAL NERVOUS SYSTEM DEPRESSION PRODUCING SUCH EFFECTS AS HEADACHE, DIZZINESS, AND LOSS OF CONSCIOUSNESS. SWALLOWING MAY RESULT IN VOMITING. MAY CAUSE EYE IRRITATION. CAN BE IRRITATING TO SKIN AND CAUSE DERMATITIS. CHRONIC: NONE LISTED BY MANUFACTURER.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: PETTIT PAINT CO INC
Label Street: 36 PINE ST
Label P.O. Box:
Label City: ROCKAWAY
Label State: NJ
Label Zip Code: 07866
Label Country: US
Label Emergency Number: 800-548-0489
Year Procured:

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PROGRESS REPORT - FIRST QUARTER 2003

BRIX MARITIME COMPANY
PORTLAND, OREGON

Prepared for

Brix Maritime Company

Prepared by

Anchor Environmental, L.L.C.
6650 SW Redwood Lane, Suite 110
Portland, OR 97224

April 15, 2003

ANCHOR
ENVIRONMENTAL, L.L.C.

Table of Contents

1 INTRODUCTION.....1

2 ACTIONS TAKEN DURING THE FIRST QUARTER.....1

3 ACTIONS SCHEDULED FOR THE SECOND QUARTER.....1

4 DATA GENERATED IN THE PREVIOUS QUARTER.....1
4.1 Well Installation..... 1
4.2 Well Development..... 2
4.3 Hydrology Data and Potentiometric Surface Map..... 3
4.4 Sampling and Analytical Testing..... 3
4.4.1 Soil..... 3
4.4.1.1 Soil Sampling Results..... 4
4.4.2 Groundwater..... 4
4.5 Data Validation..... 6

5 SUMMARIES OF PROBLEMS AND ACTIONS TAKEN TO RESOLVE PROBLEMS.....6

List of Tables

Table 1 – Water Level Measurements
Table 2 – Total Petroleum Hydrocarbons
Table 3 – Polynuclear Aromatic Hydrocarbons
Table 4 – Volatile Organic Compounds
Table 5 – Lead

List of Figures

Figure 1 – Site Location Map
Figure 2 – Well Location and Potentiometric Surface Map

List of Appendices

Appendix A – Well Logs
Appendix B – Laboratory Reports
Appendix C – Field Data Records
Appendix D – Data Validation Review

Confidential Business Information 00035683

1 INTRODUCTION

This Progress Report was prepared in accordance with Section II(H) of the Oregon Department of Environmental Quality (DEQ) Voluntary Agreement for Remedial Investigation and Source Control Measures (ECSI 2464 No. LQDVC-NWR-02-03). This report covers the work completed during the quarter ending March 31, 2003 for the Brix Maritime site in Portland, Oregon (Figure 1) and is divided into the following subject areas:

- Actions Taken During the First Quarter
- Actions Scheduled for the Second Quarter
- Data Generated in the First Quarter
- Summaries of Problems and Actions Taken To Resolve Problems

2 ACTIONS TAKEN DURING THE FIRST QUARTER

- Anchor submitted the fourth quarter 2002 progress report to DEQ on January 10, 2003.
- Monitoring wells MW-1, MW2, and MW-5 were installed on February 11, 2003.
- Monitoring wells MW-1, MW2, and MW-5 were developed on February 25, 2003.
- Monitoring wells MW-1, MW2, and MW-5 were sampled on February 28, 2003.
- Water levels were measured in monitoring wells MW-1 through MW-5 and at the river staff gauge on February 28, and March 31, 2003.
- Monitoring wells MW-1 through MW-5 and the river staff gauge were surveyed vertically and horizontally on March 19, 2003.

3 ACTIONS SCHEDULED FOR THE SECOND QUARTER

- Water levels will be measured in all onsite monitoring wells and at the river staff gauge in April, May, and June 2003.
- Anchor will prepare and submit first quarter progress report to DEQ.

4 DATA GENERATED IN THE PREVIOUS QUARTER

4.1 Well Installation

Monitoring wells MW-1, MW-2, and MW-5 were installed on February 11, 2003. The locations of the monitoring wells are shown in Figure 2. Well logs are provided in Appendix A. The well logs show lithologic descriptions, well construction details, soil sample collection depth, and photo-ionization detector (PID) readings. Monitoring well

Confidential Business Information 00035684

installation methods and materials were consistent with the monitoring plan submitted by Hahn and Associates on March 18, 2002, with modifications agreed to with DEQ in a letter dated July 12, 2002.

At location MW-1, the borehole was advanced to a total depth of 22.5 feet below ground surface (bgs). The split spoon sampler was advanced to 24.0 feet. The contact of the fill with the pre-fill soil surface was estimated to be at approximately 22 feet bgs. Monitoring well MW-1 was installed with the screen interval at 7.1 to 22.1 feet bgs.

At location MW-2, the borehole was advanced to a total depth of 25 feet bgs. The split spoon sampler was advanced to 26.5 feet. The contact of the fill with the pre-fill soil surface was estimated to be at approximately 25 feet bgs. Monitoring well MW-2 was installed with the screen interval at 9.6 to 24.6 feet bgs.

At location MW-5, the borehole was advanced to a total depth of 22.5 feet bgs. The split spoon sampler was advanced to 24.0 feet. The contact of the fill with the pre-fill soil surface was observed at approximately 22.7 feet bgs. Monitoring well MW-5 was installed with the screen interval at 7.1 to 22.1 feet bgs.

4.2 Well Development

Monitoring wells MW-1, MW-2, and MW-5 were developed on February 25, 2003. Development consisted of surging and bailing with disposable bailers. Approximately 20 casing volumes were purged from each well during development; however, the purge water was not clear of turbidity from suspended sediment by the end of development. The groundwater turbidity is from fine grained sands and silts in the soil outside the well screen. This type of fine grained soil can migrate through the well screen into the borehole during downhole purging and sampling activities. Plans have been made to conduct additional screen development prior to the next sampling event. Copies of the well development forms are in Appendix C.

Confidential Business Information 00035685

4.3 Hydrology Data and Potentiometric Surface Map

Water levels were measured in all onsite monitoring wells and at the river staff gauge on February 28 and March 31, 2003. Water levels and groundwater elevations based on the 1988 North American Vertical Datum (NAVD 88) are presented in Table 1.

A groundwater potentiometric surface map, using the February 28, 2003 measurements is shown on Figure 2. As expected, the contour pattern indicates that shallow groundwater flows roughly west to east from the upland portion of the site to the river.

During the February and March water level measurements, the river bank was examined for petroleum hydrocarbon seeps or sheens. No seeps or sheens were observed.

4.4 Sampling and Analytical Testing

4.4.1 Soil

Split spoon samples were collected at 5-foot intervals during boring advancement. At 20 feet bgs the split spoon sampling interval was increased to 2.5-feet to better define the sand/silt interface.

A soil sample obtained from the MW-1 borehole at the 15 to 16.5 feet bgs interval was submitted for laboratory analysis based on an elevated PID reading of 1,219 parts per million (ppm). A soil sample obtained from the MW-2 borehole at the 10.0 to 11.5 feet bgs interval was submitted for laboratory analysis based on a color change from dark brown to gray. Three soil samples obtained from the MW-5 borehole at depth intervals of 5.0 to 6.5, 15.0 to 16.5, and 22.5 to 24 feet bgs were submitted for laboratory analysis. The MW-5 soil sample intervals were chosen for laboratory analysis based on a petroleum hydrocarbon-like odor and to better define the vertical extent of soil contamination.

All submitted soil samples were analyzed for volatile organic compounds (VOCs) by EPA method 8260B; total petroleum hydrocarbons (TPH) by method NWTPH-Dx; polycyclic aromatic hydrocarbons (PAHs) by EPA method 8270C-SIM; and total lead by EPA method 7241.

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4.4.1.1 Soil Sampling Results

The soil quality data are presented in Tables 2 through 5 and summarized below. Laboratory reports and sample chain of custody documentation are in Appendix B. The laboratory data validation report is in Appendix D.

TPHs. TPH analytical results are shown in Table 2. TPHs were not detected in the two soil samples from MW-5 above the water table. TPH in the diesel range was detected in MW-1 (15-16.5) and MW-2 (10-11.5). TPH was detected in both the diesel range and the residual range (lube oil range) in MW-5 (22.5-24).

PAHs. PAH analytical results are presented in Table 3. PAHs were detected in all soil samples tested. Total LPAH concentrations ranged from 14.7 to 46,475 microgram per kilogram (µg/kg), with the highest concentration at MW-1 (15-16.5). Total HPAH concentrations ranged from 239 to 9,310 (µg/kg), with the highest concentration at MW-5 (22.5 to 24).

VOCs. VOC analytical results are presented in Table 4. Table 4 shows that a total of eleven VOCs (acetone, ethylbenzene, m,p-xylenes, o-xylene, isopropylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, 4-isopropyltoluene, n-butylbenzene, and naphthalene) were detected in MW-1 (15-16.5) and MW-5 (22.5-24). Note that all VOCs detected were not present in both samples. These VOCs are primarily gasoline components and gasoline breakdown products. VOCs were not detected in the soil sample from MW-2 or the two soil samples above the water table at MW-5.

Total Lead. Total lead analytical results are presented in Table 5. Total lead concentrations ranged from 4,000 to 32,500 µg/kg.

4.4.2 Groundwater

Groundwater samples were collected on February 28, 2003. Copies of the field sampling data sheets are in Appendix C. Monitoring wells MW-1, -2, -3, and -5 were purged and sampled using a new disposable bailer at each location. MW-4 was purged and sampled

Confidential Business Information 00035687

with a peristaltic pump with the exception of the VOC samples, which were collected with a disposable bailer.

Each well is checked for the presence of free petroleum product (LNAPL) during the monthly water level measurements. Table 1 shows that the only well with detectable LNAPL has been MW-3. The LNAPL thickness at MW-3 has ranged from non-detect to 0.19 ft. There was no detectable LNAPL at MW-3 during the March 31, 2003 measurement. The LNAPL at MW-3 was sampled on September 6, 2002. Lab testing showed that the sample constituents were consistent with a lube oil fingerprint. The sampling results are presented in the Third Quarter 2002 Progress Report (Anchor, October 10, 2002).

Groundwater samples were analyzed for VOCs by EPA method 8260B; PAHs by EPA method 8270C-SIM; and total and dissolved lead by EPA method 200.8. Samples to be tested for dissolved lead were field filtered through a 0.45 micron filter. The samples were supposed to be tested for TPH constituents, but TPH was inadvertently left off the sample analyte list. The analytical results are presented in Tables 2 through 5 and are summarized below.

PAHs. Table 3 shows that PAHs were detected in groundwater from each monitoring well. Total LPAH concentrations ranged from 0.29 to 55.64 μg/L, with the highest concentration at MW-5. Total HPAH concentrations ranged from 0.08 to 34.97 μg/L, with the highest concentration also at MW-5. A duplicate groundwater sample was analyzed from MW-5. The HPAH concentration from MW-5 had a high relative percent difference (RPD) of 100%. The high RPD is due to the turbidity of the sample. The silt fraction of the soil in the upper water table at this site is susceptible to movement into the well during purging and sampling. Sample turbidity appears to account for the increase in PAHs at monitoring well MW-3 from the July 2002 to the February 2003 sampling events.

Plans to rectify the groundwater turbidity problem include additional well screen development and future use of low flow sampling techniques.

Confidential Business Information 00035688

VOCs. VOC analytical results are presented in Table 4. A total of thirteen VOCs (benzene, toluene, ethylbenzene, m,p-xylenes, o-xylene, isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, 4-isopropyltoluene, n-butylbenzene, and naphthalene) were detected in MW-1, -3, -4, and -5. These VOCs are primarily gasoline components and gasoline breakdown products. VOCs were not detected in the groundwater sample from MW-2. The groundwater VOC concentrations are also likely biased high by the sample turbidity.

Total and Dissolved Lead. Total and dissolved lead analytical results are presented in Table 5. Total lead concentrations ranged from 0.7 to 288 μg/L. Dissolved lead concentrations ranged from nondetect (less than 0.02) to 0.06 μg/L. The total lead concentrations are biased high by the sample turbidity.

4.5 Data Validation

Review of the sampling and laboratory records showed no apparent discrepancies between samples collected in the field and those analyzed in the laboratory. The data validation report is in Appendix D. The HPAHs had high relative percent differences (RPDs) between the primary and duplicate samples from MW-5. Therefore, the HPAH concentrations for the primary and duplicate samples are qualified as estimated. Several VOCs were qualified as estimated due to poor percent recovery of laboratory control spikes. Overall, the data were judged to be acceptable for their intended use.

5 SUMMARIES OF PROBLEMS AND ACTIONS TAKEN TO RESOLVE PROBLEMS

Samples collected from MW-1, -2, -3, and -5 were turbid, which has affected the analytical results. This is because the target analytes tend to partition to the soil particles. Therefore, the analyte concentrations resulting from testing turbid groundwater samples does not reflect the ambient dissolved analyte concentration in groundwater. For future sampling events, all monitoring wells will be purged and sampled with a peristaltic pump with the exception of VOCs which will be collected using a disposable bailer. If the depth to water is too great to sample with a peristaltic pump, an alternative low flow or low impact technique will be used.

Confidential Business Information 00035689

TPH testing did not occur in the February 2003 groundwater sampling event. The error was discovered after the samples had been submitted to the lab but not enough sample volume was collected to analyze for TPH. Groundwater TPH testing by NWTPH-HCID with appropriate follow-up will occur on the next groundwater sampling event.

Confidential Business Information 00035690

Table 1
Water Level Measurements
Brix Maritime
Portland, Oregon

Anchor Environmental, L.L.C. — Site: Brix Maritime

Project No. : 990056-01

Well	Reference Elevation (Feet NAVD88)	Date (MM/DD/YY)	Time (2400)	DTW (feet)	Water Elevation (Feet NAVD88)	Comments
Monitoring Wells						
MW-1	41.81	02/28/03	12:20	18.89	22.92	
MW-1	41.81	03/31/03	16:35	19.43	22.38	
MW-2	42.13	02/28/03	12:10	19.88	22.25	
MW-2	42.13	03/31/03	15:50	20.36	21.77	
MW-3	42.13	07/29/02	13:00	22.91	19.22	
MW-3	42.13	08/22/02	7:15	23.50	18.63	Oil detected in well, thickness estimated at 0.02 foot
MW-3	42.13	09/30/02	7:00	23.37	18.76	Oil detected in well, thickness estimated at 0.02 foot
MW-3	42.13	10/30/02	15:50	23.68	18.45	DTP = 23.49 (0.19 foot thick)
MW-3	42.13	11/27/02	16:30	23.30	18.83	DTP = 23.16 (0.14 foot thick)
MW-3	42.13	12/30/02	16:30	21.99	20.14	Oil noted on probe, product too thin to measure with interface probe
MW-3	42.13	02/28/03	12:15	19.75	22.38	Oil noted on probe, product too thin to measure with interface probe
MW-3	42.13	03/31/03	16:20	20.24	21.89	No oil noted on probe
MW-4	23.55	07/29/02	12:55	11.62	11.93	
MW-4	23.55	08/22/02	7:25	11.77	11.78	
MW-4	23.55	09/30/02	6:50	11.94	11.61	
MW-4	23.55	10/30/02	15:55	12.06	11.49	
MW-4	23.55	11/27/02	16:35	11.85	11.70	
MW-4	23.55	12/30/02	16:35	10.24	13.31	
MW-4	23.55	02/28/03	12:35	4.34	19.21	
MW-4	23.55	03/31/03	16:45	4.59	18.96	
MW-5	41.66	02/28/03	12:28	19.45	22.21	
MW-5	41.66	03/31/03	16:10	19.99	21.67	
River Gauge[1]						
River	4.33	10/30/02	16:00	2.75	7.08	
River	4.33	11/27/02	16:40	3.10	7.43	
River	4.33	12/30/02	16:20	7.50	11.83	
River	4.33	02/28/03	12:00	6.10	10.43	
River	4.33	03/31/03	16:00	8.00	12.33	

Note: DTW = Depth to Water; DTP = Depth to Product

1 - The river gauge is marked in 1-foot increments, field measurements are estimated to the closest 0.1 foot.

Confidential Business Information

00035691

Table 2
Total Petroleum Hydrocarbons
Brix Maritime
Portland, Oregon

Location (sample depth in ft bgs)	Matrix	Date Date Sampled	Diesel Range Organics		Residual Range Organics	
MW-3	Water	07/30/02	3.4	Y	1.6	O
MW-4	Water	07/29/02	0.26	U	0.52	U
MW-1 (15-16.5)	Soil	02/11/03	360	L	110	U
MW-2 (10-11.5)	Soil	02/11/03	40	H	130	U
MW-4 (10-11.5)	Soil	07/17/02	35	U	140	U
MW-5 (5-6.5)	Soil	02/11/03	28	U	110	U
MW-5 (15-16.5)	Soil	02/11/03	27	U	110	U
MW-5 (22.5-24)	Soil	02/11/03	96	H	390	O

Notes: Water concentrations are in µg/L. Soil concentrations are in µg/kg.
ft bgs = feet below ground surface.
U = Not detected at method reporting limit.
O = The fingerprint resembles oil, but does not match the calibration standard.
L = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of lighter weight constituents than the calibration standard.
H = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of heavier weight constituents than the calibration standard.
Y = The fingerprint resembles a petroleum product in the correct carbon range, but the elution pattern does not match the calibration standard.

Confidential Business Information
00035692

TABLE 3
Polycyclic Aromatic Hydrocarbons
Brix Maritime
Portland, Oregon

Sample Designation	MW-1		MW-2		MW-3		MW-3		MW-4		MW-4		MW-5		MW-5 dup		MW-1 (15-16.5)		MW-2 (10-11.5)		MW-4 (10-11.5)		MW-5 (5-6.5)		MW-5 (15-16.5)		MW-5 (22.5-24)	
Matrix	Water		Water		Water		Water		Water		Water		Water		Water		Soil		Soil		Soil		Soil		Soil		Soil	
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/kg		µg/kg		µg/kg		µg/kg		µg/kg		µg/kg	
Date Sampled	02/28/03		02/28/03		07/30/02		02/28/03		07/29/02		02/28/03		02/28/03		02/28/03		07/17/02		02/11/03		07/17/02		07/17/02		07/17/02		07/17/02	
LPAHs																												
Naphthalene	**23**	D	**0.082**		**0.36**		**0.75**		**0.039**		**18**	D	**19**	D	**17**	D	**22000**	D	**26**		**41**		5	U	4.8	U	**1800**	D
Acenaphthylene	**0.19**		**0.023**		0.02	U	**0.22**		0.02	U	0.02	U	**0.10**		**0.40**		4.8	U	**11**		**11**		5	U	4.8	U	**38**	
Acenaphthene	**0.43**		0.02	U	**0.26**		**1.3**		**0.51**		**0.60**		**1.3**		**1.3**		**52**		**11**		7.1	U	**52**		4.8	U	**38**	
Dibenzofuran	**0.12**		0.02	U	**0.025**		**0.11**		0.02	U	0.02	U	**0.2**		**0.19**		**14**		5	U	7.1	U	**11**		4.8	U	**17**	
Fluorene	**0.36**		0.02	U	**0.09**		**1.0**		0.02	U	0.02	U	**1.2**		**1.3**		**110**		**10**		**7.3**		**53**		4.8	U	**51**	
Phenanthrene	**1.8**		**0.15**		**0.11**		**2.9**		**0.043**		0.02	U	**2.3**		**3.1**		**240**		**150**		**55**		**440**		**9.2**		**490**	
Anthracene	**0.53**		**0.032**		0.02	U	**0.55**		0.02	U	0.02	U	**0.55**		**0.93**		**59**		**48**		**11**		**54**		**5.5**		**82**	
2-MethylNaphthalene	**9.0**		0.02	U	**0.28**		**1.8**		0.02	U	**0.80**		**31**	D	**31**	D	**24000**	D	**11.0**		**8.4**		5.0	U	4.8	U	**910**	
Total LPAH	**35.43**		**0.29**		**1.13**		**8.63**		**0.59**		**19.40**		**55.64**		**55.22**		**46475**		**267.0**		**133.7**		**610.0**		**14.7**		**3426**	
HPAHs																												
Fluoranthene	**4.3**		**0.29**		**0.056**		**4.9**		**0.033**		**0.024**		**3.1**	J	**6.5**	J	**120**		**220**		**66**		**78**		**29**		**720**	
Pyrene	**13**	D	**0.42**		**0.058**		**7.6**	D	**0.046**		**0.055**		**4.3**	J	**9.1**	J	**160**		**410**		**83**		**77**		**63**		**850**	
Benz(a)anthracene	**2.1**		**0.11**		0.02	U	**2.1**	D	0.02	U	0.02	U	**0.72**	J	**2.80**	J	**54**		**120**		**18**		**9**		**16**		**330**	
Chrysene	**2.7**		**0.17**		0.02	U	**2.3**	D	0.02	U	0.02	U	**0.96**	J	**3.4**	J	**60**		**150**		**29**		**14**		**26**		**560**	
Benzo(b)fluoranthene	**1.4**		**0.14**		**0.022**		**1.8**	D	0.02	U	0.02	U	**0.44**	J	**2.2**	J	**32**		**94**		**23**		**12**		**16**		**830**	
Benzo(k)fluoranthene	**1.1**		**0.13**		0.02	U	**1.7**	D	0.02	U	0.02	U	**0.42**	J	**1.9**	J	**39**		**95**		**20**		**13**		**18**		**650**	
Benzo(a)pyrene	**2.0**		**0.19**		0.02	U	**2.3**	D	0.02	U	0.02	U	**0.65**	J	**3.6**	J	**36**		**150**		**34**		**14**		**23**		**920**	
Indeno(1,2,3-cd)pyrene	**1.5**		**0.20**		0.02	U	**1.5**	D	0.02	U	0.02	U	**0.49**	J	**2.5**	J	**30**		**120**		**33**		**21**		**23**		**2000**	D
Dibenz(a,h)anthracene	**0.17**		0.02	U	0.02	U	0.20	U	0.02	U	0.02	U	**0.044**	J	**0.27**	J	4.8	U	**13**		7.1	U	5.0	U	4.8	U	**150**	
Benzo(g,h,i)perylene	**1.5**		**0.22**		0.02	U	**1.9**	D	0.02	U	0.02	U	**0.52**	J	**2.7**	J	**41**		**120**		**49**		**22**		**25**		**2300**	D
Total HPAHs	**29.77**		**1.87**		**0.14**		**26.10**		**0.08**		**0.08**		**11.64**		**34.97**		**577**		**1492**		**355**		**260**		**239**		**9310**	

NOTE: µg/L = micrograms per liter or parts per billion.
µg/kg = micrograms per kilogram or parts per billion.
J = estimated concentration.
U = not detected at or above the indicated method reporting limit.

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00035693

Table 4
Volatile Organic Compounds
Brix Maritime
Portland, Oregon

Sample Designation	Matrix	Date Sampled	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	Acetone	1,1-Dichloroethene	Methyl tert-Butyl Ether	Carbon Disulfide	Methylene Chloride	*trans*- 1, 2-dichloroethene	1,1-Dichloroethane	2-Butanone	2,2-Dichloropropane	*cis*-1, 2-dichloroethene	Chloroform	Bromochloromethane	1,1,1-Trichloroethane	1,1-Dichloropropene	Carbon Tetrachloride
MW-1	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-2	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-3	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-3	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-5	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-5 Dup	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-1 (15-16.5)	Soil	02/11/03	110 U	110 U	110 U	110 U	110 U	110 U	4200 U	110 U	110 U	11 U	420 U	110 U	110 U	4200 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
MW-2 (10-11.5)	Soil	02/11/03	0.87 U	1.3 U	0.77 U	0.99 U	0.97 U	0.91 U	13 U	0.86 U	0.79 U	1.9 U	1.2 U	0.91 U	0.97 U	11 U	1 U	1.1 U	0.71 U	0.65 U	0.71 U	0.91 U	0.74 U
MW-4 (10-11.5)	Soil	07/17/02	6.8 UJ	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	**70**	6.8 U	6.8 U	6.8 U	14 U	6.8 U	6.8 U	27 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U
MW-5 (5-6.5)	Soil	02/11/03	5.5 UJ	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	11 U	5.5 U	5.5 U	22 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
MW-5 (15-16.5)	Soil	02/11/03	5.4 UJ	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	54 U	5.4 U	5.4 U	5.4 U	11 U	5.4 U	5.4 U	22 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
MW-5 (22.5-24)	Soil	02/11/03	7.5 UJ	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	**85**	7.5 U	7.5 U	7.5 U	15 U	7.5 U	7.5 U	30 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U

NOTE: Water concentrations are in µg/L. Soil concentrations are in µg/kg. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

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00035694

Table 4
Volatile Organic Compounds
Brix Maritime
Portland, Oregon

Sample Designation	Matrix	Date Sampled	1,2-Dichloroethane	Benzene	Trichloroethene	1,2-Dichloropropane	Bromodichloromethane	Dibromomethane	2-Hexanone	cis-1,3-Dichloropropene	Toluene	trans 1,3-Dichloropropene	1,1,2-Trichloroethane	4-Methyl-2-pentanone	1,3 Dichloropropane	Tetrachloroethene	Dibromochloromethane	1,2 Dibromoethane	Chlorobenzene	1,1,1,2-Tetrachloroethane	Ethylbenzene	m,p-Xylenes	o-Xylene	Styrene	Bromoform
MW-1	Water	02/28/03	0.5 U	**5.7**	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	**0.71**	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**37**	**50**	**12**	0.5 U	0.5 U
MW-2	Water	02/28/03	0.5 U	0.50 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-3	Water	07/17/02	0.5 U	**0.73**	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	**14**	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**0.51**	**3.5**	**2**	0.5 U	0.5 U
MW-3	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	**0.63**	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	**1.2**	**1.2**	0.5 U	0.5 U
MW-4	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	Water	02/28/03	0.5 U	**0.76**	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**2.3**	**1.4**	**1.2**	0.5 U	0.5 U
MW-5	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**15**	**12**	**0.97**	0.5 U	0.5 U
MW-5 Dup	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	**16**	**14**	**1.10**	0.5 U	0.5 U
MW-1 (15-16.5)	Soil	02/11/03	110 U	110 U	110 U	110 UJ	110 U	110 U	4200 U	110 UJ	110 U	110 U	110 U	4200 U	110 U	110 U	110 UJ	420 U	110 U	110 U	**1000**	**1600**	**440**	110 U	110 U
MW-2 (10-11.5)	Soil	02/11/03	0.83 U	0.98 U	0.35 U	0.89 UJ	0.66 U	0.89 U	7.6 U	0.94 UJ	1.1 U	0.74 U	0.86 U	6.8 U	0.65 U	0.39 U	0.74 UJ	0.98 U	0.87 U	0.63 U	0.71 U	1.9 U	0.86 U	0.91 U	0.81 U
MW-4 (10-11.5)	Soil	07/17/02	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	27 U	6.8 U	6.8 U	6.8 U	6.8 U	27 U	6.8 U	6.8 U	6.8 U	27 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U
MW-5 (5-6.5)	Soil	02/11/03	5.5 U	5.5 U	5.5 U	5.5 UJ	5.5 U	5.5 U	22 U	5.5 UJ	5.5 U	5.5 U	5.5 U	22 U	5.5 U	5.5 U	5.5 UJ	22 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
MW-5 (15-16.5)	Soil	02/11/03	5.4 U	5.4 U	5.4 U	5.4 UJ	5.4 U	5.4 U	22 U	5.4 UJ	5.4 U	5.4 U	5.4 U	22 U	5.4 U	5.4 U	5.4 UJ	22 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
MW-5 (22.5-24)	Soil	02/11/03	7.5 U	7.5 U	7.5 U	7.5 UJ	7.5 U	7.5 U	30 U	7.5 UJ	7.5 U	7.5 U	7.5 U	30 U	7.5 U	7.5 U	7.5 UJ	30 U	7.5 U	7.5 U	**2500**	**2700**	**33**	7.5 U	7.5 U

NOTE: Water concentrations are in µg/L. Soil concentrations are in µg/kg. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

Table 4
Volatile Organic Compounds
Brix Maritime
Portland, Oregon

Sample Designation	Matrix	Date Sampled	Isopropylbenzene	1,1,2,2-Tetrachloroethane	1,2,3-Trichloropropane	Bromobenzene	n-Propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	1,3-Dichlorobenzene	4-Isopropyltoluene	1,4-Dichlorobenzene	n-Butylbenzene	1,2-Dichlorobenzene	1,2-Dibromo-3-chloropropane	1,2,4-Trichlorobenzene	1,2,3-Trichlorobenzene	Naphthalene	Hexachlorobutadiene
MW-1	Water	02/28/03	**19**	0.5 U	0.5 U	0.5 U	**65** D	2 U	2 U	**26**	2 U	**140** D	**10**	0.5 U	2 U	0.5 U	**21**	0.5 U	0.5 U	2 U	2 U	**31**	2 U
MW-2	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	0.5 U	2 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U
MW-3	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	**2.2**	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	0.5 U	2 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U
MW-3	Water	02/28/03	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	0.5 U	2 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U
MW-4	Water	07/17/02	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	0.5 U	2 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U
MW-4	Water	02/28/03	**29**	0.5 U	0.5 U	0.5 U	**35**	2 U	2 U	**2.2**	2 U	**3.8**	2 U	0.5 U	2 U	0.5 U	**3.1**	0.5 U	0.5 U	2 U	2 U	**45**	2 U
MW-5	Water	02/28/03	**24**	0.5 U	0.5 U	0.5 U	**110** D	2 U	2 U	**26**	2 U	**75** D	**27**	0.5 U	2 U	0.5 U	**87** D	0.5 U	0.5 U	2 U	2 U	**23**	2 U
MW-5 Dup	Water	02/28/03	**25**	0.5 U	0.5 U	0.5 U	**110** D	2 U	2 U	**30**	2 U	**99** D	**30**	0.5 U	**2.3**	0.5 U	**110** D	0.5 U	0.5 U	2 U	2 U	**25**	2 U
MW-1 (15-16.5)	Soil	02/11/03	**3000**	110 U	110 U	420 U	**18000**	420 U	420 U	7800 U	420 U	**59000**	7300 U	110 U	**1800**	110 U	**29000**	110 U	420 U	420 U	420 U	**64000**	420 U
MW-2 (10-11.5)	Soil	02/11/03	0.84 U	0.91 U	0.76 U	1 U	0.89 U	0.91 U	0.92 U	4.7 U	0.92 U	1.1 U	0.92 U	0.88 U	0.89 U	1.1 U	0.93 U	0.81 U	1.1 U	0.95 U	1.2 U	1.1 U	0.93 U
MW-4 (10-11.5)	Soil	07/17/02	6.8 U	6.8 U	6.8 U	6.8 U	27 U	27 U	27 U	27 U	27 U	27 U	27 U	6.8 U	27 U	6.8 U	27 U	6.8 U	6.8 U	27 U	27 U	27 U	27 U
MW-5 (5-6.5)	Soil	02/11/03	5.5 U	5.5 U	5.5 U	5.5 U	22 U	22 U	22 U	22 U	22 U	22 U	22 U	5.5 U	22 U	5.5 U	22 U	5.5 U	5.5 U	22 U	22 U	22 U	22 U
MW-5 (15-16.5)	Soil	02/11/03	5.4 U	5.4 U	5.4 U	5.4 U	22 U	22 U	22 U	22 U	22 U	22 U	22 U	5.4 U	22 U	5.4 U	22 U	5.4 U	5.4 U	22 U	22 U	22 U	22 U
MW-5 (22.5-24)	Soil	02/11/03	**7000**	7.5 U	7.5 U	7.5 U	30 U	65 U	30 U	970 U	30 U	**20000**	**180**	7.5 U	**33**	7.5 U	2500 U	7.5 U	7.5 U	30 U	30 U	**4900**	30 U

NOTE: Water concentrations are in µg/L. Soil concentrations are in µg/kg. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

Table 5
Lead
Brix Maritime
Portland, Oregon

Location		Matrix	Date Sampled	Result	
MW-1	Total	Water	02/28/03	288	
MW-1	Dissolved	Water	02/28/03	0.03	
MW-2	Total	Water	02/28/03	57.6	
MW-2	Dissolved	Water	02/28/03	0.04	
MW-3	Total	Water	07/30/02	0.88	
MW-3	Dissolved	Water	07/30/02	0.13	
MW-3	Total	Water	02/28/03	65.9	
MW-3	Dissolved	Water	02/28/03	0.05	
MW-4	Total	Water	07/29/02	0.36	
MW-4	Dissolved	Water	07/29/02	0.02	U
MW-4	Total	Water	02/28/03	0.70	
MW-4	Dissolved	Water	07/29/02	0.02	U
MW-5	Total	Water	02/28/03	131	
MW-5	Dissolved	Water	02/28/03	0.06	
MW-5 Duplicate	Total	Water	02/28/03	116	
MW-5 Duplicate	Dissolved	Water	02/28/03	0.03	
MW-1 (15-16.5)	Total	Soil	02/11/03	4200	
MW-2 (10-11.5)	Total	Soil	02/11/03	15900	
MW-4 (10-11.5)	Total	Soil	07/17/02	21000	
MW-5 (5-6.5)	Total	Soil	02/11/03	5400	
MW-5 (15-16.5)	Total	Soil	02/11/03	4000	
MW-5 (22.5-24)	Total	Soil	02/11/03	32500	

Note: U = not detected at method reporting limit. ppb = parts per billion.
Water concentrations are in µg/L. Soil concentrations are in µg/kg.

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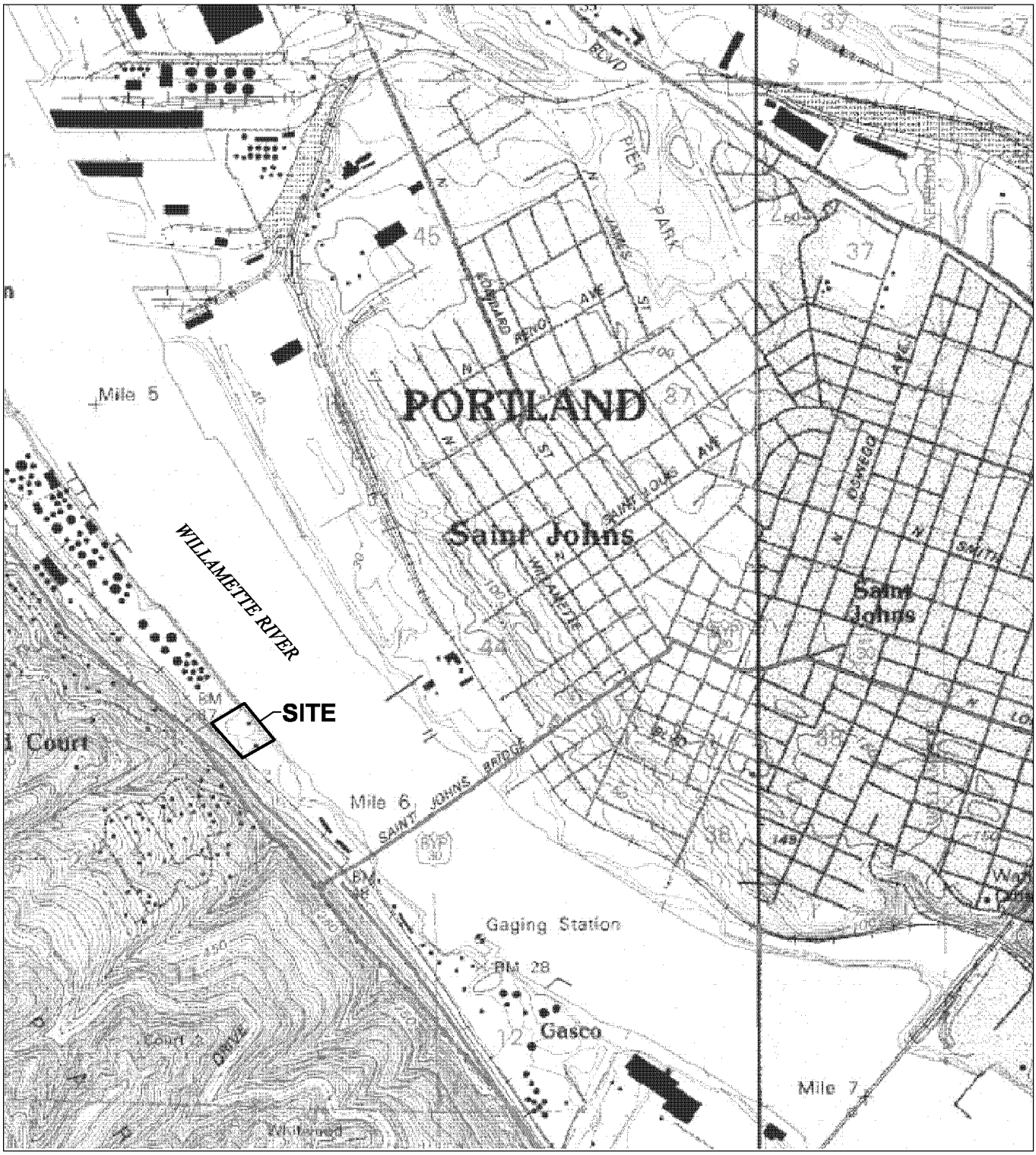

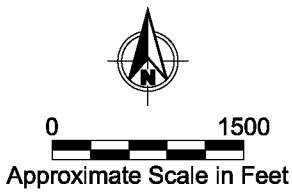

Apr 01, 2003 4:09pm cdavidson I:\CAD\Jobs\990056-Brix_Maritime\99005601\99005601-03.dwg FIG 1

ANCHOR ENVIRONMENTAL, L.L.C.

Figure 1
Site Location Map
Brix Maritime
Portland, Oregon

MW-1 Monitoring Well Location and Number

(22.92) Groundwater Elevation in Feet (NAVD 88)

— 19.5 — Potentiometric Surface Contour in Feet

□ Stormwater Catch Basin

0 100
Scale in Feet

Source: Aerial photograph acquired from WAC, Corp. 1991.

Apr 14, 2003 4:38pm rchao I:\CAD\Jobs\990056-Brix_Maritime\990005601\990005601-02.dwg Fig 2

ANCHOR ENVIRONMENTAL, L.L.C.

Figure 2
Well Location and Potentiometric Surface Map
Brix Maritime
Portland, Oregon

Appendix A – Well Logs

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-1**
LOCATION	**Portland, Oregon**	PAGE	**1 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**24.0'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
524	1.0	3 2 1		5				**5.0 to 6.5 feet: SILTY SAND (SM)**; medium to dark brown; 60 to 70 percent fine to medium sand; subangular to subrounded; 20 to 30 percent non to low plasticity fines; 10 percent fine to medium gravel; subrounded; gasoline-like odor; moist.
1,114	1.0	4 8 10		10				**10.0 to 11.5 feet: SAND (SP)**; dark gray to black; fine to medium sand; subangular to subrounded; trace fine to medium gravel; subrounded; gasoline-like odor; moist.
1,219	1.0	2 5 5		15				**15.0 to 16.5 feet: SAND (SP)**, as above.
				20				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:1.3/5/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-1**
LOCATION	**Portland, Oregon**	PAGE	**2 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**24.0'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
81.2	1.5	2 1 1						**20.0 to 21.0 feet: SAND (SP)**, same as above.
								21.0 to 21.5 feet: SILTY SAND (SM); dark gray to black; 70 to 80 percent low to medium plasticity fines; trace wood fragments; gasoline-like odor; wet.
20.3	0.5	1 0 0						**22.5 to 24.0 feet: SILT (ML)**; gray; low to medium plasticity fines; trace fine to medium sand; trace wood fragments and roots; moist.
				25				Boring terminated at 22.5 feet. Split-spoon sampler advanced to 24.0 feet.
				30				**WELL COMPLETION DETAILS** 0 to 7.1 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC blank riser pipe. 7.1 to 22.1 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC well screen with 0.020-inch machined slots. 22.1 to 22.6 feet: 2-inch-diameter threaded end cap. 0 to 1.0 foot: Concrete. 1.0 to 5.5 feet: Bentonite chips hydrated with potable water. 5.5 to 22.6 feet: 10-20 Colorado Silica Sand.
				35				
				40				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:3.3/28/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-2**
LOCATION	**Portland, Oregon**	PAGE	**1 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**26.5'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
								0.5 to 2.5 feet: GRAVEL (GW), base fill.
				5				
0	1.5	15 15 15						**5.0 to 6.5 feet: SILTY SAND (SM)**; medium to dark brown; 60 percent fine to medium sand, subangular to subrounded; 20 to 30 percent nonplastic to low plasticity fines; 10 to 20 percent gravel; fine to medium; angular; moist.
								@ 7.5 feet: smoother drilling.
				10				
0	1.0	3 4 4						**10.0 to 11.5 feet: SILTY SAND (SM)**; medium to dark brown; 60 to 70 percent fine to medium sand; subangular to subrounded; 30 to 40 percent nonplastic to low plasticity fines; moist. @ 11.0 feet: color change to gray.
				15				
0	1.5	5 9 12						**15.0 to 16.5 feet: SAND (SP)**; medium brown; fine to medium sand; subangular to subrounded; trace fine to medium gravel; subrounded; moist.
								@ 20.0 feet: wet.
				20				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:2.3/19/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-2**
LOCATION	**Portland, Oregon**	PAGE	**2 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**26.5'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
0	1.0	5 7 9						**20.0 to 21.5 feet: SAND (SP)**; same as above.
0	1.0	4 5 3						**22.5 to 23.5 feet: SAND (SP)**; same as above. **23.5 to 24.0 feet: SILTY SAND (SM)**; dark gray to black; 70 to 80 percent fine sand; 20 to 30 percent nonplastic to low plasticity fines; wet.
0	1.5	1 1 2		25				**25.0 to 26.5 feet: SILT (ML)**; gray; medium plasticity fines; trace fine to medium sand; trace root hairs; moist.
				30				Boring terminated at 25.0 feet. Split-spoon sampler advanced to 26.5 feet. **WELL COMPLETION DETAILS** 0 to 9.6 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC blank riser pipe. 9.6 to 24.6 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC well screen with 0.020-inch machined slots. 24.6 to 25.1 feet: 2-inch-diameter threaded end cap. 0 to 1.0 foot: Concrete. 1.0 to 8.0 feet: Bentonite chips hydrated with potable water. 8.0.0 to 25.0 feet: 10-20 Colorado Silica Sand.
				35				
				40				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:3.3/28/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-5**
LOCATION	**Portland, Oregon**	PAGE	**1 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**24.0'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
								0.5 to 2.5 feet: GRAVEL (GW); gravel base fill.
2	1.0	4 5 5		5				**5.0 to 6.0 feet: SAND (SP)**; dark gray to black; fine to medium sand; subangular to subrounded; trace fine to medium gravel; subangular to subrounded; petroleum-hydrocarbon-like odor; moist.
2.2	1.0	3 20 23		10				**5.0 to 6.0 feet: SAND (SP)**; same as above.
6.3	1.0	3 5 9		15				**15.0 to 16.5 feet: SAND (SP)**; same as above.
				20				

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:2.3/19/03.BRIX...990056-01

LOG OF EXPLORATORY BORING

PROJECT NAME	**Brix Maritime**	BORING NO.	**MW-5**
LOCATION	**Portland, Oregon**	PAGE	**2 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Hollow-stem Auger**	TOTAL DEPTH	**24.0'**
LOGGED BY	**John Renda**	DATE COMPLETED	**02/11/03**

PID (in ppm)	RECOVERY (feet)	BLOWS (per 6 inches)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
3.0	1.0	3 5 6						**20.0 to 21.5 feet: SAND (SP)**; same as above; wet.
101	1.0	0 1 3						**22.5 to 22.7 feet: SAND (SP)**; same as above. **22.7 to 24.0 feet: SILT (ML)**; gray; medium plasticity fines; trace fine to medium sand; trace root hairs; slight sheen at sand/silt interface; moist. Boring terminated at 22.5 feet. Split-spoon sampler advanced to 24.0 feet.
				25				
				30				
				35				
				40				

WELL COMPLETION DETAILS

0 to 7.1 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC blank riser pipe.
7.1 to 22.1 feet: 2-inch-diameter, flush-threaded, Schedule 40 PVC well screen with 0.020-inch machined slots.
22.1 to 22.6 feet: 2-inch-diameter threaded end cap.

0 to 1.0 foot: Concrete.
1.0 to 5.5 feet: Bentonite chips hydrated with potable water.
5.5.0 to 22.6 feet: 10-20 Colorado Silica Sand.

REMARKS

ANCHOR ENVIRONMENTAL, L.L.C.

BRIX.gds:3.3/28/03.BRIX...990056-01

Appendix B – Laboratory Reports

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Appendix C – Field Data Records

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Appendix D – Data Validation Review

LABORATORY DATA REVIEW

BRIX Maritime

February 2003

This report presents a review of the samples collected from BRIX Maritime on February 11 and 28, 2003. Samples were analyzed by Columbia Analytical Services, Inc. (CAS), in Kelso, Washington.

Data Qualifications

The following comments refer to the laboratory's performance in meeting the quality control (QC) specifications outlined in the analytical procedures and the Quality Assurance Project Plan (QAPP). Analytical results were reviewed using *USEPA Contract Laboratory Program National Functional Guidelines for Inorganics Data Review* (USEPA, 1994a), and *USEPA Contract Laboratory Program National Functional Guidelines for Organics Data Review* (USEPA, 1994b), and applying laboratory and method QC criteria.

The laboratory Sample Receipt Form states that the cooler temperatures were 2.5°C and 1.7 °C upon arrival at the laboratory. Sample transport and handling were acceptable.

Unless specifically noted in this report, laboratory results were within QC criteria.

Holding Times

All sample analyses were conducted within recommended holding times. No data were qualified due to these results.

Method Reporting Limits (MRLs)

The MRLs were acceptable.

Method Blanks

Method blanks were analyzed at the required frequency for all analyses. Method blanks were free of contamination with one exception. Toluene was detected in the Method Blank analyzed on 2/28/03; toluene was not detected in any of the associated samples. No data were qualified due to these results.

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Trip and Field Blanks

One trip blank was submitted with the samples and analyzed for VOCs. The trip blank was free of contamination. No data were qualified due to these results.

One field blank, MW-Z-022803, was collected and analyzed for VOCs. The field blank was free of contamination. No data were qualified due to these results.

Field Duplicates

One field duplicate was submitted with the samples. The field duplicate results were comparable with the following exception. The high molecular weight PAHs (HPAHs) had high relative percent differences (RPDs) between the primary (MW-5) and duplicate (MW-55) sample. The RPDs ranged from 70.8% to 143%. Therefore, the HPAHs (fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene and benzo(g,h,i)perylene) for the primary and duplicate samples are qualified as estimated (J). The remaining samples are not qualified as the LCS/LCSD RPDs were within the control limits.

Field duplicate results for total and dissolved lead and VOCs were comparable. No other data was qualified.

Surrogate Recoveries

Surrogate recoveries were reported for all organic analyses. Three samples had one of three VOC surrogates slightly below the control limits. One sample had one of three PAH surrogates slightly below the control limits. As only one of the three surrogates was slightly out, no data were qualified.

Laboratory Duplicate Results

The laboratory analyzed duplicates at the required frequency. All relative percent differences (RPDs) were within acceptance criteria. No data were qualified due to these results.

Matrix Spike/Matrix Spike Duplicate Results

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were conducted at the required frequency. No data were qualified due to these results.

Laboratory Control Sample Results

Laboratory control sample (LCS) analyses were conducted at the required frequency. The LCS-KWG0303202 percent recovery for 1,1-dichloroethane (80%) and 1,2-dichloropropane (84%) were below the laboratory control limits; associated samples are qualified as estimated (J) for these two analytes. The LCS-KWG0301881 percent

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recovery for 1,2-dichloropropane (83%), cis-1,3-dichloropropene and dibromochloromethane (77%) were below the laboratory control limits; associated samples are qualified as estimated (J) for these three analytes.

Completeness

The results reported by the laboratory were checked against chain-of-custody entries to determine if all of the requested analyses were completed. All requested analyses were conducted.

Overall Assessment

The data are judged to be acceptable, as qualified, for their intended use.

Confidential Business Information 00035712

REFERENCES

USEPA. 1986. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 530/SW-846.

USEPA. 1994a. USEPA Contract Laboratory Program National Functional Guidelines for Inorganics Data Review. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency. EPA 540/R-94/012. February.

USEPA. 1994b. USEPA Contract Laboratory Program National Functional Guidelines for Organics Data Review. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency. EPA 540/R-94/012. February.

Confidential Business Information 00035713

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : RUST-INHIBITIVE PRIMER
IDENTIFICATION NUMBER: 1573 402
DATE PRINTED : 04/02/99

PRODUCT USE/CLASS : SPEEDY DRY SYSTEM

SUPPLIER:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, Illinois
60061 USA

(847) 367-7700 Rust-Oleum Corp.
Mon.-Fri, 8:00 AM-4:30 PM

MANUFACTURER:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, Illinois
60061 USA

(847) 367-7700 Rust-Oleum Corp.
Mon.-Fri, 8:00 AM-4:30 PM

PREPARER: LJW, PHONE: , PREPARE DATE: 04/02/99

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % LESS THAN
01	Magnesium Silicate	14807-96-6	30.0 %
02	XYLENE	1330-20-7	20.0 %
03	ETHYLBENZENE	100-41-4	5.0 %

EXPOSURE LIMITS

ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	MEXICAN TLV-TWA	SKIN
01	10mg/m3	N.E.	15mg/m3	N.E.	N.E.	NO
02	100PPM	150PPM	100PPM	N.E.	N.E.	NO
03	100 PPM	125 PPM	100 PPM	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: Harmful if swallowed. Causes eye irritation. Flammable liquid and vapor. Causes nose and throat irritation. Harmful if inhaled. May effect the brain or nervous system causing dizziness, headache or nausea. High vapor concentrations can irritate eyes, nose and respiratory

(Continued on Page 2)

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SECTION 3 - HAZARDS IDENTIFICATION

passages.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Prolonged or repeated skin contact may cause irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. Avoid breathing vapors or mists. High vapor concentrations are irritating to the eyes, nose, throat and lungs.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and hearing loss.

PRIMARY ROUTE(S) OF ENTRY: SKIN ABSORPTION INHALATION EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID - EYE CONTACT: Hold eyelids apart and flush with plenty of water for at lease 15 minutes. Get medical attention.

FIRST AID - SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 81 F (SETAFLASH CLOSED CUP)

LOWER EXPLOSIVE LIMIT: 1.0 %
UPPER EXPLOSIVE LIMIT: 6.7 %

AUTOIGNITION TEMPERATURE: ND

(Continued on Page 3)

SECTION 5 - FIRE FIGHTING MEASURES

Confidential Business Information 00035715

EXTINGUISHING MEDIA: DRY CHEMICAL FOAM WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Evacuate area and fight fire from a safe distance.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Eliminate all ignition sources; use explosion-proof equipment. Place material in a container and dispose of according to local, provincial, state and federal regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Keep away from heat, sparks, flame and sources of ignition. Keep container closed when not in use.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace

conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

(Continued on Page 4)

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE	: 276 - 284 F	VAPOR DENSITY	: Is heavier than air
ODOR	: SOLVENT	ODOR THRESHOLD	: ND
APPEARANCE	: LIQUID	EVAPORATION RATE	: Is slower than Ether
SOLUBILITY IN H2O	: INSOLUBLE		
FREEZE POINT	: ND	SPECIFIC GRAVITY	: 1.3756
VAPOR PRESSURE	: ND	pH @ 0.0 %	: ND
PHYSICAL STATE	: LIQUID	VISCOSITY	: ND

COEFFICIENT OF WATER/OIL DISTRIBUTION: ND

(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION PRODUCTS: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

COMPONENT TOXICOLOGICAL INFORMATION:

CHEMICAL NAME	LD50	LC50

(Continued on Page 5)

SECTION 11 - TOXICOLOGICAL PROPERTIES

CHEMICAL NAME	LD50	LC50
Magnesium Silicate	None	TCLo:11mg/m3 inh.
XYLENE	RAT 4300MG/KG	RAT 5000PPM 4HR
ETHYLBENZENE	RAT 3500MG/KG	N.A.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of material in accordance to local, state and federal regulations and ordinances. Do not allow to enter storm drains or sewer systems.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: PAINT

DOT TECHNICAL NAME:

DOT HAZARD CLASS: 3 HAZARD SUBCLASS:

DOT UN/NA NUMBER: UN1263 PACKING GROUP: III RESP. GUIDE PAGE: 127

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:
This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD CHRONIC HEALTH HAZARD FIRE HAZARD

(Continued on Page 6)

SECTION 15 - REGULATORY INFORMATION

SARA SECTION 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	WT/WT % IS LESS THAN
XYLENE	1330-20-7	20.0 %
ETHYLBENZENE	100-41-4	5.0 %

TOXIC SUBSTANCES CONTROL ACT:
This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

CHEMICAL NAME	CAS NUMBER
No information is available.	

U.S. STATE REGULATIONS: AS FOLLOWS -

NEW JERSEY RIGHT-TO-KNOW:
The following materials are non-hazardous, but are among the top five components in this product:

CHEMICAL NAME	CAS NUMBER
ALKYD RESIN	PROPRIETARY
Yellow Iron Oxide	51274-00-1
Zinc Phosphate	7779-90-0

PENNSYLVANIA RIGHT-TO-KNOW:
The following non-hazardous ingredients are present in the product at greater than 3%:

CHEMICAL NAME	CAS NUMBER
ALKYD RESIN	PROPRIETARY
Yellow Iron Oxide	51274-00-1
Zinc Phosphate	7779-90-0

CALIFORNIA PROPOSITION 65:
WARNING: The chemical(s) noted below and contained in this product, are known to the state of California to cause cancer, birth defects or other reproductive harm:

CHEMICAL NAME	CAS NUMBER
According to our raw material suppliers no Proposition 65 chemicals exist in this product above OSHA de minimus levels. All products comply with label provisions of Proposition 65.	

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

(Continued on Page 7)

SECTION 15 - REGULATORY INFORMATION

CANADIAN WHMIS CLASS: B2 D2A

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 2* FLAMMABILITY: 3 REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 04/02/99

REASON FOR REVISION: TRANSPORTATION INFORMATION

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

: No Information.

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

Material Safety Data Sheet

24 Hour Assistance:
1-847-367-7700
Rust-Oleum Corp.
www.rustoleum.com

Section 1 - Chemical Product / Company Information

Product Name:	Rust-Oleum High Performance Industrial DTM Acrylic Primer	Revision Date:	08/26/2004
Identification Number:	3769300, 3769402, 3781300, 3781402		Industrial Enamel Primer (Red Primer)
Product Use/Class:	Primer/Water Based Acrylic		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	Manufacturer:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
Preparer:	Cziczo, Ray		

Section 2 - Composition / Information On Ingredients

Chemical Name	CAS Number	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Titanium Dioxide	13463-67-7	10.0	10 mg/m3	N.E.	10 mg/m3	N.E.
Dipropylene Glycol Monobutyl Ether	29911-28-2	5.0	N.E.	N.E.	N.E.	N.E.
Zinc Phosphate	7779-90-0	5.0	N.E.	N.E.	N.E.	N.E.
Propylene Glycol	57-55-6	5.0	N.E.	N.E.	N.E.	N.E.
Diethylene Glycol Monobutyl Ether	112-34-5	5.0	N.E.	N.E.	N.E.	N.E.

Section 3 - Hazards Identification

*** Emergency Overview ***: Use ventilation necessary to keep exposures below recommended exposure limits, if any.

Effects Of Overexposure - Eye Contact: Causes eye irritation.

Effects Of Overexposure - Skin Contact: Substance may cause slight skin irritation.

Effects Of Overexposure - Inhalation: Low hazard for usual industrial handling or commercial handling by trained personnel.

Effects Of Overexposure - Ingestion: Substance may be harmful if swallowed.

Effects Of Overexposure - Chronic Hazards: Contains: Propylene Glycol. Human systemic effects by ingestion: general anesthesia, convulsions, changes in surface EEG.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Inhalation, Eye Contact

Section 4 - First Aid Measures

First Aid - Eye Contact: Hold eyelids apart and flush with plenty of water for at least 15 minutes. Get medical attention.

First Aid - Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists.

First Aid - Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

First Aid - Ingestion: Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention.

Section 5 - Fire Fighting Measures

Flash Point: >212 F
(Setaflash)

LOWER EXPLOSIVE LIMIT: 0.9 %
UPPER EXPLOSIVE LIMIT : 24.6 %

Extinguishing Media: Dry Chemical, Foam, Water Fog

Unusual Fire And Explosion Hazards: FLASH POINT IS TESTED TO BE GREATER THAN 200 DEGREES F.

Special Firefighting Procedures: Water may be used to cool closed containers to prevent buildup of steam.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers.

Section 7 - Handling And Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Avoid contact with eyes.

Storage: Keep container closed when not in use. Keep from freezing.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Respiratory Protection: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Skin Protection: Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

Eye Protection: Use safety eyewear designed to protect against splash of liquids.

Other protective equipment: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

Hygienic Practices: Wash thoroughly with soap and water before eating, drinking or smoking.

Section 9 - Physical And Chemical Properties

Boiling Range:	369 - 453 F	Vapor Density:	Heavier than air
Odor:	Ammonia Like	Odor Threshold:	ND
Appearance:	Liquid	Evaporation Rate:	Slower than Ether
Solubility in H2O:	Soluble		
Freeze Point:	ND	Specific Gravity:	1.4600
Vapor Pressure:		PH:	NE
Physical State:	Liquid		

(See section 16 for abbreviation legend)

Section 10 - Stability And Reactivity

Conditions To Avoid: Avoid contact with strong acid and strong bases.

Incompatibility: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

Hazardous Decomposition: When heated to decomposition it emits acrid smoke and irritating fumes. By open flame, carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur under normal conditions.

Stability: This product is stable under normal storage conditions.

Section 11 - Toxicological Information

Product LD50: ND

Product LC50: ND

Chemical Name	LD50	LC50
Titanium Dioxide	>7500 mg/kg (ORAL, RAT)	N.D.
Dipropylene Glycol Monobutyl Ether	4400 mg/kg (ORAL, RAT)	N.D.
Zinc Phosphate	N.D.	N.D.
Propylene Glycol	20000 mg/kg (ORAL, RAT)	N.D.
Diethylene Glycol Monobutyl Ether	6560 mg/kg (ORAL, RAT)	>2000 ppm (INH 7 Hr, RAT)

Section 12 - Ecological Information

Ecological Information: Product is a mixture of listed components.

Section 13 - Disposal Information

Disposal Information: Dispose of material in accordance to local, state and federal regulations and ordinances. Do not allow to enter storm drains or sewer systems.

Section 14 - Transportation Information

DOT Proper Shipping Name:	Paint	Packing Group:	—
DOT Technical Name:	—	Hazard Subclass:	—
DOT Hazard Class:	—	Resp. Guide Page:	—
DOT UN/NA Number:	—		

Section 15 - Regulatory Information

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD

SARA Section 313:

Listed below are the substances (if any) contained in this product that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS Number
Zinc Phosphate	7779-90-0
Diethylene Glycol Monobutyl Ether	112-34-5

Toxic Substances Control Act:

Listed below are the substances (if any) contained in this product that are subject to the reporting requirements of TSCA 12(B) if exported from the United States:

None known

U.S. State Regulations: As follows -

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

Chemical Name	CAS Number
Water	7732-18-5
Modified Acrylic Copolymer	PROPRIETARY
Calcium Carbonate	1317-65-3
Red Iron Oxide	1332-37-2

Pennsylvania Right-to-Know:

The following non-hazardous ingredients are present in the product at greater than 3%.

Chemical Name	CAS Number
Water	7732-18-5
Modified Acrylic Copolymer	PROPRIETARY
Calcium Carbonate	1317-65-3
Red Iron Oxide	1332-37-2

California Proposition 65:

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

Chemical Name	CAS Number
Microcrystalline Silica	14808-60-7
Lead Compounds	NOT SPECIFIED
Cadmium Compounds	NOT SPECIFIED
Propylene Oxide	75-56-9
Ethylene Oxide	75-21-8
Benzene	71-43-2
1,4-Dioxane	123-91-1
Arsenic Compounds	NOT SPECIFIED
Acetaldehyde	75-07-0
Formaldehyde	50-00-0

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

Chemical Name	CAS Number
Lead Compounds	NOT SPECIFIED
Cadmium Compounds	NOT SPECIFIED
Ethylene Oxide	75-21-8
Benzene	71-43-2
Arsenic Compounds	NOT SPECIFIED
Ethylene Glycol Monoethyl Ether	110-80-5

International Regulations: As follows -

CANADIAN WHMIS:

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: D2B

Section 16 - Other Information

HMIS Ratings:

Health: 1 Flammability: 0 Reactivity: 0 Personal Protection: X

VOLATILE ORGANIC COMPOUNDS, g/l: <250

REASON FOR REVISION:

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

CHEVRON RYKON® OILS AW

ISO 32, 46, 68

CUSTOMER BENEFITS

Chevron Rykon Oils AW deliver value through:

- **High oxidation stability** — Longer service life than with conventional lubricants in high pressure service.
- **Rust and corrosion protection** — Gives excellent protection against corrosion of both copper and steel, and passes the ASTM D 665A distilled water rust test and ASTM D 665B synthetic sea water rust test.
- **Minimum viscosity change** over a wide temperature range.
- **Foam inhibition** — Contains special foam suppressant. Eliminates both foaming and aeration problems.
- **Excellent antiwear properties**
- **Passes all major pump manufacturer's requirements** — Meets the requirements of leading hydraulic pump manufacturers for antiwear-type hydraulic fluids in both vane- and piston-type pumps.
- **Good stability in the presence of water** by ASTM D 2619 Hydrolytic Stability test and the Denison T6C Wet Vane Pump test.
- **Excellent thermal stability** in the presence of copper and steel at 135°C (275°F) by the Cincinnati Machine Thermal Stability, Procedure A, test.
- **Fast water separation** — Minimize rust problems by fast release of water.
- **Excellent filterability** — Excellent thermal and hydrolytic stability prevents formation of deposits which may interfere with filtration in equipment with close tolerances.

FEATURES

Chevron Rykon Oils AW are designed to give maximum hydraulic pump protection.

Chevron Rykon Oils AW are formulated with ISOSYN® base stocks.

They provide excellent antiwear protection, oxidation and corrosion inhibition, as well as foam and aeration suppression.

All grades have excellent demulsibility characteristics.

Hydraulic systems, due to the nature of their operation, experience accelerated wear unless they are protected by clean, high quality antiwear hydraulic oils. Surging pressures in pumps and valves can increase metal-to-metal contact unless antiwear protection is present. The antiwear additives in Chevron Rykon Oils AW create a protective film on the metal surfaces. This protective film minimizes metal-to-metal contact, which is most severe in vane- and gear-type pumps. As hydraulic pressures increase over 1000 psi, the need for antiwear protection increases proportionally.

APPLICATIONS

Chevron Rykon Oils AW are most commonly used for hydraulics with vane- or gear-type pumps, especially where pressures exceed 1000 psi. They can also be used to lubricate lightly loaded reciprocating compressors and as general purpose shop lubricants for motors and bearings.

Chevron Rykon Oils AW meet AGMA Specification 1 (ISO 46) and Specification 2 (ISO 68).

Chevron Rykon Oils AW are certified by **NSF** and are acceptable as lubricants where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Chevron Rykon Oils AW:

- have **Eaton-Vickers** 35VQ25A pump approvals for M-2950-S (Mobile) and I-286-S (Stationary)
- have **Denison** HF-0/HF-2 approvals
- have **Bosch Rexroth** approvals as well as meeting pump manufacturer requirements of **Racine** Model S

Chevron Rykon Oils AW meet the requirements of:

- **Cincinnati Machine** P-68 (ISO 32), P-70 (ISO 46), and P-69 (ISO 68)
- **General Motors** LS2 Specification LH for antiwear hydraulic fluids.

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8 January 2008
IO-195

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

TYPICAL TEST DATA

ISO Grade	32	46	68
Product Number	*229001*	*229002*	*229003*
MSDS Number	*10910*	*10910*	*10910*
AGMA Grade	—	1	2
API Gravity	32.6	31.8	31.6
Viscosity, Kinematic cSt at 40°C cSt at 100°C	 30.4 5.2	 43.7 6.5	 64.6 8.4
Viscosity, Saybolt SUS at 100°F SUS at 210°F	 157 44	 225 48	 335 54
Viscosity Index	98	97	99
Flash Point, °C(°F)	220(428)	226(439)	235(455)
Pour Point, °C(°F)	-33(-27)	-30(-22)	-30(-22)
Oxidation Stability Hours to 2.0 mg KOH/g acid number, ASTM D 943	 >5000	 >5000	 >5000

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.

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