



MATERIAL SAFETY DATA SHEET

Revision Date: 04/02/2012

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

RS-783, RS-783-8

HMIS CODES

Health	2
Flammability	3
Reactivity	1

PRODUCT NAME

2K Urethane Primer Catalyst

MANUFACTURER'S NAME

Rubber-Seal Products
5751 N. Webster Street
Dayton, OH 45414
www.rubber-seal.com

EMERGENCY TELEPHONE NO.

CHEMTREC:
800-424-9300 (Within USA)
001-703-527-3887 (Outside the USA)
INFORMATION TELEPHONE NO
(937) 890-6547

Section 2 -- COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient % by weight

CAS Number

Vapor Pressure

Xylene
5 - 20%

1330-20-7

8

ACGIH TLV	100
ACGIH STEL	150
OSHA PEL	100
OSHA STEL	
NIOSH	STEL 150
NIOSH	REL 100

Ethyl benzene
1 - 5%

100-41-4

7

ACGIH TLV	100
ACGIH STEL	125
OSHA PEL	100
OSHA STEL	N/E
NIOSH	REL 100
NIOSH	STEL 125
NIOSH	IDLH 800

Methoxy-2-Propyl Acetate

5 - 20%

108-65-6

3.8

ACGIH TLV	N/E
ACGIH STEL	N/E
OSHA PEL	N/E
OSHA STEL	N/E

Toluene		21	
20 - 50%	108-88-3	ACGIH TLV	20
		ACGIH STEL	
		OSHA PEL	200
		OSHA STEL	300
		NIOSH	100
		NIOSH	STEL 150
		NIOSH	IDLH 500
1, 6-Hexamethylene Diisocyanate		.05	
0.1 - 1%	822-06-0	ACGIH TLV	0.005
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
		NIOSH	REL: .005
		NIOSH	C: .020
Hexamethylene Diisocyanate		N/A	
20 - 50%	28182-81-2	ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
N-butyl Acetate		10	
5 - 20%	123-86-4	ACGIH TLV	150
		ACGIH STEL	200
		OSHA PEL	150
		OSHA STEL	N/E
		NIOSH	REL 150
		NIOSH	STEL 200
		NIOSH	IDLH 1700

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE:

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

EFFECTS OF OVEREXPOSURE:

Irritation of eyes, skin and 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

If INHALED:

If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN:

Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

If in EYES:

Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If SWALLOWED:

Do not induce vomiting. Get medical attention immediately.

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
39 F	1.0	10.0

EXTINGUISHING MEDIA:

Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible auto ignition or explosion when exposed to extreme heat.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES:

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible auto ignition or explosion when exposed to extreme heat.

Section 6 -- ACCIDENTAL RELEASE MEASURES

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

Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbent should be placed in this container.

Section 7 -- HANDLING RELEASE MEASURES

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 other sources of ignition. Consult NFPA Code. Use approved bonding and grounding procedures. Do not 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 dust are ACGIII TLV 10 mg/m³ (total dust), 3 mg/m³ (respirable fraction), OSHA PEL 15 mg/m³ (total dust), and 5 mg/m³ (respirable fraction). Removal of old paint by sanding, scraping, or other means may generate dust or fumes that contain lead.

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, and complete an industrial hygiene study to analyze specific working conditions.

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.



PROTECTIVE GLOVES:

None required for normal application of these products where minimal skin contact is expected. For prolonged repeated contact, wear chemical resistant gloves.



EYE PROTECTION:

Wear safety spectacles with unperforated side shields.

OTHER PRECAUTIONS:

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

HEALTH	*	2
FLAMMABILITY		3
PHYSICAL HAZARD		1
PERSONAL PROTECTION	H	

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	7.924 lb. /gal	950 g/l
SPECIFIC GRAVITY	0.950	
BOILING POINT	231 - 291 F	111 - 144 C
VOLATILES	69.9 % by wt	73.0 % by Vol
EVAPORATION RATE	Same as ether	
VAPOR DENSITY	Heavier than air	
REGULATORY VOC	5.54 lb. /gal	663 g/l
ACTUAL VOC	5.54 lb. /gal	663 g/l

Section 10 -- STABILITY AND REACTIVITY

STABILITY:

This product is normally stable and will not undergo hazardous reactions.

CONDITIONS TO AVOID:

None Known

INCOMPATIBILITY:

Avoid contact with strong alkalis, strong mineral acids, or strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide, carbon dioxide, oxides of sulfur, oxides of barium, lowers molecular weight polymer fractions.

HAZARDOUS POLYMERIZATION:

None Known

Section 11 -- TOXICOLOGICAL INFORMATION

CAS No	Ingredient Name
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1330-20-7	Xylene
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IARC Classification	Group 3
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Acute oral toxicity:

Rat:	LD50 = 4.300 mg/kg
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Acute inhalation toxicity:	No data available
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Acute dermal toxicity:

Rabbit:	LD50 = (>) 2,000 mg/kg
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100-41-4	Ethyl benzene
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IARC Classification	Group 2B
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Toxicological Information:

Draize test, rabbit, eye:	500 mg Severe;
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Inhalation, mouse:	LC50 = 35500 mg/m3/2H;
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Inhalation, rat:	LC50 = 55000 mg/m3/2H;
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Oral, rat:	LD50 = 3500 mg/kg;
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Oral, rat:	LD50 = 3500 mg/kg;
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Skin, rabbit:	LD50 = 17800 uL/kg;
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Inhalation rat	LC50 = 17.2 mg/l/4H from BASF.
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Carcinogenicity:	Confirmed animal carcinogen with unknown relevance to humans
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California:	Carcinogen, initial date 6/11/04
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NTP:	Not listed.
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IARC:	Group 2B carcinogen
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Epidemiology:	No information found
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Teratogenicity:	No information found
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Reproductive Effects:	No information found
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Mutagenicity:	Mutation in mammalian somatic cells (Rodent, mouse) Lymphocyte = 80 mg/L.
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Neurotoxicity:	No information found
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Other Studies:	No information found
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108-65-6 Methoxy-2-Propyl Acetate

IARC Classification Not Established
Acute toxicity:
Oral, rat: LD50 = 8,532 MG/KG BWT
Skin, rat: LD50 = >5,000 MG/KG

Irritation
Skin:
May be irritating to the skin

Eyes:
May irritate eyes

Target organs:
Eyes, Skin

Repeated dose toxicity:
No known chronic health effects.

108-88-3 Toluene

IARC Classification Group 3
Acute oral toxicity:
Rat: LD50 = 2,600-7,500 mg/kg
Acute inhalation toxicity:
Rat: LC50 = 8000 ppm, 4 h
Acute dermal toxicity:
Rabbit: LD50 = 12,124 mg/kg

822-06-0 1, 6-Hexamethylene Diisocyanate

IARC Classification Not Established
Inhalation, mouse: LC50 = 30 mg/m³;
Inhalation, rat: LC50 = 124 mg/m³; 4 h
Inhalation, rat: LC50 = 462 mg/m³; 4 h
Oral, mouse: LD50 = 350 mg/kg;
Oral, rat: LD50 = 710 uL/kg;
Skin, rabbit: LD50 = 570 uL/kg;

28182-81-2 Hexamethylene Diisocyanate

IARC Classification Not Established
Acute oral toxicity:
Rat: LD50 = > 5,000 mg/kg

Acute inhalation toxicity:
Rat, male/female: LC50 = 390-453 mg/m³; 4 h
RD50 = 20.8 mg/m³; 3 h

Acute dermal toxicity:

Rabbit: LD50 = > 5,000 mg/kg

Skin irritation:

Rabbit, Draize: Slightly irritating

Eye irritation:

Rabbit, Draize: Slightly irritating

Sensitization:

Dermal: Sensitizer (Guinea pig, Maximization Test)

Dermal: Non-sensitizer (Guinea pig, Buehler)

Inhalation: Non-sensitizer (Guinea pig)

Repeated dose toxicity:

3 wks., inhalation: NOAEL: 3.7 - 4.3 mg/m³, (Rat)

90 d, inhalation: NOAEL: 3.3 - 3.4 mg/m³, (Rat)

Irritation to lungs and nasal cavity

Mutagenicity Genetic

Toxicity in Vitro:

Ames: Negative (Salmonella typhimurium, Metabolic Activation: with/without)

123-86-4

n-butyl Acetate

IARC Classification

Not Established

Acute oral toxicity:

Rat: LD50 = 10.8 g/kg

Acute inhalation toxicity:

Rat: LC50 = 160mh/l; 4 h

Acute dermal toxicity:

Rabbit: LD50 = 17,600 mg/kg

IARC Reference

IARC Group 1: The agent is *carcinogenic to humans*

This category is used when there is *sufficient evidence of carcinogenicity* in humans. Exceptionally, an agent may be placed in this category when evidence of carcinogenicity in humans is less than *sufficient* but there is *sufficient evidence of carcinogenicity* in experimental animals and strong evidence in exposed humans that the agent acts through a relevant mechanism of carcinogenicity.

IARC Group 2A: The agent is *probably carcinogenic to humans*.

This category is used when there is *limited evidence of carcinogenicity* in humans and *sufficient evidence of carcinogenicity* in experimental animals. In some cases, an agent may be classified in this category when there is *inadequate evidence of carcinogenicity* in humans and *sufficient evidence of carcinogenicity* in experimental animals and strong evidence that the carcinogenesis is mediated by a mechanism that also operates in humans. Exceptionally, an agent may be classified in this category solely on the basis of *limited evidence of carcinogenicity* in humans. An agent may be assigned to this category if it clearly belongs, based on mechanistic considerations, to a class of agents for which one or more members have been classified in Group 1 or Group 2A.

IARC Group 2B: The agent is *possibly carcinogenic to humans*.

This category is used for agents for whom there is *limited evidence of carcinogenicity* in humans and less than *sufficient evidence of carcinogenicity* in experimental animals. It may also be used when there is *inadequate evidence of carcinogenicity* in humans but there is *sufficient evidence of carcinogenicity* in experimental animals. In some instances, an agent for which there is *inadequate evidence of carcinogenicity* in humans and less than *sufficient evidence of carcinogenicity* in experimental animals together with supporting evidence from mechanistic and other relevant data may be placed in this group. An agent may be classified in this category solely on the basis of strong evidence from mechanistic and other relevant data.

IARC Group 3: The agent is *not classifiable as to its carcinogenicity to humans*.

This category is used most commonly for agents for whom the evidence of carcinogenicity is *inadequate* in humans and *inadequate* or *limited* in experimental animals. Exceptionally, agents for which the evidence of carcinogenicity is *inadequate* in humans but *sufficient* in experimental animals may be placed in this category when there is strong evidence that the mechanism of carcinogenicity in experimental animals does not operate in humans. Agents that do not fall into any other group are also placed in this category. An evaluation in Group 3 is not a determination of non-carcinogenicity or overall safety. It often means that further research is needed, especially when exposures are widespread or the cancer data are consistent with differing interpretations.

IARC Group 4: The agent is *probably not carcinogenic to humans*.

This category is used for agents for whom there is *evidence suggesting lack of carcinogenicity* in humans and in experimental animals. In some instances, agents for which there is *inadequate evidence of carcinogenicity* in humans but *evidence suggesting lack of carcinogenicity* in experimental animals, consistently and strongly supported by a broad range of mechanistic and other relevant data, may be classified in this group.

Section 12 -- ECOLOGICAL INFORMATION

CAS No	Ingredient Name
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1330-20-7	Xylene
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Biodegradability:	No data available
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Bioaccumulation:	No data available
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Eco toxicity effects

Toxicity to fish:

Flathead minnow (oimephales promelas):	LC50 = 23.53-29.97 mg/l; 96 h
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Method: Static

Mortality

Toxicity to daphnia and other aquatic Invertebrates:

Water flea (Daphnia magna):	LC50 = > 100.00 -<1,000.00 mg/l; 24 h
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Method: Static

Mortality

Toxicity to algae:	No data available
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Toxicity to bacteria:	No data available
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Biochemical Oxygen Demand (BOD):	No data available
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Chemical Oxygen Demand (COD):	No data available
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Additional ecological information:	No data available
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Ecological Information

Eco toxicity: Fish: Rainbow trout:	LC50 = 14.0 mg/L; 96 h
Static Bioassay Fish: Fathead Minnow:	LC50 = 12.1 mg/L; 96 h
Flow-through Bioassay Fish: Bluegill/Sunfish:	LC50 = 150.0mg/L; 96 h
Static Bioassay Water flea:	pH 6.5-7.9, 21-23 degrees C EC50 = 2.1 mg/L; 48 h
Static Bioassay Water flea:	EC50 = 75.0 mg/L; 48 h
Static Bioassay Shrimp (mysidoposis Bahia):	LC50 = 87.6 mg/L/96 h
Sheepshead minnow:	LC50 = 275 mg/L/96 h
Fathead minnow:	LC50 = 42.3Mg/L/96 h in hard water &48.5 mg/L/96 h in soft water

Environmental: Experimental data on the bio concentration of ethyl benzene include a log BCF of 1.9 in goldfish and the log BCF of 0.67 for clams exposed to the water-soluble fraction of crude oil. Using its octanol/water partition coefficient (log Kow= 3.15) and using a recommended regression equation, one can calculate a log BCF in fish of 2.16 indicating that ethyl benzene should not significantly bio concentrate in aquatic organisms. Ethyl benzene has a moderate adsorption for soil. The measured Koc for silt loam was 164

Physical: The predominant photochemical reaction of ethyl benzene in the atmosphere is with hydroxyl radicals; the tropospheric half-life for this reaction is 5.5 and 24 hr. in the summer and winter, actively. Degradation is somewhat faster under photochemical smog situations.

Photo oxidation products which have been identified include ethyl phenol, benzaldehyde, acetophenone and m- and p-ethylnitrobenzene. Ethyl benzene is resistant to hydrolysis.

Ethyl benzene does not significantly absorb light above 290 nm in methanol solution.

Eco toxicity: No Data Available.

Acute Fish toxicity:

Oryzias latipes (Orange-red killifish):	LC50 = > 100 mg/l; 96 h
Oryzias latipes (Orange-red killifish):	NOEC = 556 mg/l; 96 h

Acute toxicity to aquatic invertebrates

Daphnia magna (water flea):	EC50 = 373 mg/l; 48 h
Daphnia magna (water flea):	NOEC = 278 mg/l; 48 h

Environmental fate and pathways: It may enter soil and water.

Persistence and degradability

Biodegradation: Expected to be biodegradable.

108-88-3 Toluene

Biodegradability: No data available

Bioaccumulation:

Species: ide, silver or golden orfe (*Leuciscus idus*)

Exposure time: 3 d

Dose: 0.05 mg/l

Bio concentration factor (bcf): 94

Method: Not reported

Eco toxicity effects:

Toxicity to fish:

Rainbow trout, Donaldson trout (*Oncorhynchus mykiss*): LC50 = 5.80 mg/l; 96 h

Method: Renewal

Mortality

Fathead minnow (*Pimephales promelas*): LC50 = 12.60 mg/l; 96 h

Method: Static

Mortality

Toxicity to daphnia and other aquatic invertebrates:

Water flea (*daphnia magna*): EC50 = 6.00 mg/l; 48 h

Method: Static intoxication

Toxicity to algae: No data available

Toxicity to bacteria: No data available

Biochemical oxygen demand (BOD): No data available

Chemical oxygen demand (COD): No data available

Additional ecological information: No data available

822-06-0 1, 6-Hexamethylene Diisocyanate

Bacteria: *Phytobacterium phosphoreum*: EC50 = 15.7 mg/L; 5-30 min

Microtox test

28182-81-2 Hexamethylene Diisocyanate

Biodegradation

0 %, Exposure time: 28 Days, Not readily biodegradable.

Acute and Prolonged Toxicity to Fish:

Zebra fish (*Brachydanio rerio*): LC50 = > 100 mg/l; 96 h

Acute Toxicity to Aquatic Invertebrates:

Water flea (*Daphnia magna*): EC50 = > 100 mg/l; 48 h

Toxicity to Aquatic Plants

Green algae (*Scenedesmus subspicatus*): EC50: > 1,000 mg/l; 72 h

Toxicity to Microorganisms:

Activated sludge microorganisms: EC50: > 1,000 mg/l; 3 h

Aquatic toxicity:

Acute and Prolonged Toxicity to Fish:

No data available

Acute Toxicity to Aquatic Invertebrates:

No data available

Environmental fate and pathways:

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. Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section 14 -- TRANSPORT INFORMATION

Proper Shipping Name: Consumer Commodity
NOS Technical Name: ORM-D
Hazard Class: N/A
UN Number: N/A
Packing Group: N/A

Section 15 -- REGULATORY INFORMATION

Canadian Regulations:

CEPA (Canadian Environmental Protection Act):

All substances in this product are listed on the Canadian Domestic Substance List (DSL) or are not required to be listed.

US Regulations:

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.

SARA 313:

CAS No	CHEMICAL/COMPOUND	% by WT
1330-20-7	Xylene	8.6
100-41-4	Ethyl benzene	2.9
108-88-3	Toluene	24.9

PROP 65:

CAS No	CHEMICAL COMPOUND	% by WT
100-41-4	Ethyl benzene	2.9
108-88-3	Toluene	24.9

TSCA CERTIFICATION:

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or are otherwise exempt from TSCA Inventory reporting requirements.

Section 16 -- OTHER INFORMATION

DISCLAIMER:

Do not handle until the manufacturer's safety precautions have been read and understood. Regulations require that all employees be trained on Material Safety Data Sheets for all products with which they come in contact. While we believe that the data contained herein is accurate and derived from qualified sources, the data are not to be taken as a warranty or representation for which we assume legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state, provincial, and local laws and regulations.