RUBBER-SEAL® Medallion™ Refinish System

MATERIAL SAFETY DATA SHEET

Created 04/02/2012
Revised 04/02/2012

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

RS-782, RS-782-Q

HMIS CODES

Health	2
Flammability	3
Reactivity	1

PRODUCT NAME

Super High Build 2K Urethane Primer/Surfacer

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
Ethylbenzene 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		

0.1 - 1%	108-65-6	3.8	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Toluene			
5 - 20%	108-88-3	21	
		ACGIH TLV	20
		ACGIH STEL	
		OSHA PEL	200
		OSHA STEL	300
		NIOSH	100
		NIOSH	STEL 150
		NIOSH	IDLH 500
Methyl Ethyl Ketone			
0.1 - 1%	78-93-3	78	
		ACGIH TLV	200
		ACGIH STEL	300
		OSHA PEL	200
		OSHA STEL	N/E
		NIOSH	TWA 200
		NIOSH	STEL 300
		NIOSH	IDLH 3000
Styrene			
0.1 - 1%	100-42-5	5	
		ACGIH TLV	20
		ACGIH STEL	40
		OSHA PEL	100
		OSHA STEL	N/E
		NIOSH	50
		NIOSH	STEL 100
		NIOSH	IDLH 700
		OSHA	PEL-C 200
Acetone			
5 - 20%	67-64-1	180	
		ACGIH TLV	500
		ACGIH STEL	750
		OSHA PEL	1000
		OSHA STEL	N/E
		NIOSH	REL 250
		NIOSH	IDLH 2500
Aluminum Hydroxide			
0.1 - 1%	21645-51-2	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Titanium Dioxide			
5 - 20%	13463-67-7	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Carbon Black			
0.1 - 1%	1333-86-4	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E

Talc			
5 - 20%	14807-96-6	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Calcium Carbonate			
20 - 50%	1317-65-3	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Crystalline Quartz			
1 - 5%	14808-60-7	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Amorphous Silica			
0.1 - 1%	7631-86-9	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Cellulose Acetate Butyrate			
5 - 20%	9004-36-8	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
n-butyl Acetate			
0.1 - 1%	123-86-4	10	
		ACGIH TLV	150
		ACGIH STEL	200
		OSHA PEL	150
		OSHA STEL	N/E
		NIOSH	REL 150
		NIOSH	STEL 200
		NIOSH	IDLH 1700
Ethyl-3-Ethoxy Propionate			
0.1 - 1%	763-69-9	2.0	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
VM & P Naphtha			
0.1 - 1%	8032-32-4	2	
		ACGIH TLV	300
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Quaternary Ammonium Compounds			
1 - 5%	71011-24-0	N/A	
		ACGIH TLV	N/E
		ACGIH STEL	N/E
		OSHA PEL	N/E
		OSHA STEL	N/E
Tremolite			

0.1 - 1%	14567-73-8	10	
		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
-4 F	0.1	12.8

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), 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.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	11.256 lb/gal	1350 g/l
SPECIFIC GRAVITY	1.350	
BOILING POINT	132 - 401 F	56 - 205 C
VOLATILES	30.6 % by wt	51.6 % by vol
EVAPORATION RATE	Same as ether	
VAPOR DENSITY	Heavier than air	
REGULATORY VOC	2.63 lb/gal	315 g/l
ACTUAL VOC	2.09 lb/gal	251 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 alkalies, 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
1330-20-7	Xylene

IARC Classification Group 3
Acute oral toxicity: LD50 Rat: 4.300 mg/kg

Acute inhalation toxicity: No data available

Acute dermal toxicity: LD50 Rabbit: (>) 2,000 mg/kg

100-41-4 Ethylbenzene

IARC Classification Group 2B
Toxicological Information:

Draize test, rabbit, eye: 500 mg Severe;
Inhalation, mouse: LC50 = 35500 mg/m3/2H;
Inhalation, rat: LC50 = 55000 mg/m3/2H;
Oral, rat: LD50 = 3500 mg/kg;
Oral, rat: LD50 = 3500 mg/kg;
Skin, rabbit: LD50 = 17800 uL/kg;

Inhalation rat LC50: 17.2 mg/l/4H from BASF.

Carcinogenicity:
Confirmed animal carcinogen with unknown relevance to humans
California: carcinogen, initial date 6/11/04
NTP: Not listed.
IARC: Group 2B carcinogen
Epidemiology: No information found
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: Mutation in mammalian somatic cells (Rodent,mouse) Lymphocyte = 80 mg/L.
Neurotoxicity: No information found
Other Studies:

108-65-6 Methoxy-2-Propyl Acetate

IARC Classification Not Established
Acute toxicity

LD50 Oral	rat	8,532 MG/KG BWT
LD50 Skin	rat	>5,000 MG/KG

Irritation
Skin
May be irritating to the skin.

Eyes
May irritate eyes.

Target organs
Eye. Skin.

Repeated dose toxicity
No known chronic health effects.

108-88-3 Toluene

IARC Classification Group 3
Acute oral toxicity: LD50 rat: 2,600-7,500 mg/kg

Acute inhalation toxicity: LC50 rat: 8000 ppm, 4 h

Acute dermal toxicity: LD50 rabbit: 12,124 mg/kg

78-93-3 Methyl Ethyl Ketone

IARC Classification Not Established
Acute oral toxicity:
LD50 Mouse: 670 mg/kg

LD50 Rat: 2,300-3,500 mg/kg

Acute inhalation toxicity:
LC50 Rat: 11,700 mg/l

LC50 Mouse: 11,000 mg/l

LC50 Rat: 11,700 mg/l, 4h

Acute dermal toxicity:
LD50 Rabbit: (>) 8,000 mg/kg
LD50 Rabbit: (>) 5 g/kg

100-42-5 Styrene

IARC Classification Group 2B
LD50/LC50:
CAS# 100-42-5:
Draize test, rabbit, eye: 100 mg Severe;
Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, skin: 100% Moderate;
Inhalation, mouse: LC50 = 9500 mg/m3/4H;
Inhalation, rat: LC50 = 12 gm/m3/4H;
Oral, mouse: LD50 = 316 mg/kg;
Oral, rat: LD50 = 2650 mg/kg;
Carcinogenicity:
ACGIH: A4 - Not Classifiable as a Human Carcinogen
OSHA: Possible Select carcinogen
IARC: Group 2B carcinogen
Epidemiology: TCLo (Inhalation, rat) = 293 ppm/6H; Reproductive - Effects on Newborn - behavioral.
Teratogenicity: TCLo - Lowest published toxic concentration(Inhalation,rat)= 300 ppm/6H; Lungs, Thorax, or Respiration - structural or functional change in trachea or bronchi; Lungs, Thorax, or Respiration - other changes; Liver - other changes.

Reproductive Effects: RTECs reports reproductive effects in animals such as effects on weaning/lactation index, naternal effects, fetoxitity, stillbirth and post-implantation mortality. TCLo (Inhalation, rat) = 293 ppm/6H; Reproductive - Effects on Newborn - behavioral.
Neurotoxicity: No information available.
Mutagenicity: An increased incidence of mutations such as chromosome aberrations and micronuclei in peripheral lymphocytes has been reported in workers exposed occupationally. Some studies have found a slight increase in the incidence of sister chromatid exchanges while no increase has been found in several other studies.Mutation in microorganisms(Salmonella typhimurium) =1 umol/plate(Yeast - Saccharomyces cerevisiae) =1 mmol/L.
Other Studies: IARC has determined that there is inadequate evidence for carcinogenicity in humans. Three studies have sugg ested an association between leukaemia and lymph omas with exposure to styrene. Other studies have sh own no excess in mortality from cancer in humans. IARC has determined there is sufficient evidence of carcinogenicity in animals.Standard Draize test(skin,rabbit) = 100%; Moderate.Standard Draize test(eye,rabbit) = 100 mg; Severe.

67-64-1 Acetone

IARC Classification Not Established
Acute oral toxicity

LD50 Rat: 5,800 mg/kg

Acute inhalation toxicity

LC50 Rat: >16000 ppm, 4 h

Acute dermal toxicity

LD50 Rabbit: >20,000 mg/kg

21645-51-2 Aluminum Hydroxide

IARC Classification Not Established
Routes of Entry: Inhalation, Ingestion
Toxicity to Animals: LD50: Not available. LC50: Not available
Chronic Effects on Human: Not Available
Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals: Not available
Special remarks on Chronic Effects on Humans: Not available
Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: May cause mild skin, eye and upper respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation: May affect bones (osteomalacia), metabolism, blood, behavior (muscle concentration, spasticity, change in motor activity), liver.

13463-67-7 Titanium Dioxide

IARC Classification Group 2B
No data available.

1333-86-4 Carbon Black

IARC Classification Group 2B
RTECS#:
CAS# 1333-86-4: FF5800000
LD50/LC50:
CAS# 1333-86-4:
Oral, rat: LD50 = >15400 mg/kg;
Skin, rabbit: LD50 = >3 gm/kg;

Carcinogenicity:
CAS# 1333-86-4:
l ACGIH: Not listed.
l California: carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size
l NTP: Not listed.
l IARC: Group 2B carcinogen
Epidemiology: No data available.
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: See actual entry in RTECS for complete information.
Neurotoxicity: No information found
Other Studies:

14807-96-6 Talc

IARC Classification Group 2B
Acute toxicity
Oral LD50
no data available
Inhalation LC50
Dermal LD50
no data available
Other information on acute toxicity
no data available
Skin corrosion/irritation
Skin - Human - Mild skin irritation - 3 h
Serious eye damage/eye irritation
no data available
Respiratory or skin sensitization
no data available
Germ cell mutagenicity
no data available
Carcinogenicity
Carcinogenicity - rat - Inhalation
Tumorigenic:Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration:Bronchiogenic carcinoma. Endocrine:Tumors.
Carcinogenicity - rat - Inhalation
Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors.
This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH,NTP, or EPA classification.
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrous magnesium silicate)
1 - Group 1: Carcinogenic to humans (Hydrous magnesium silicate)
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrous magnesium silicate)
1 - Group 1: Carcinogenic to humans (Hydrous magnesium silicate)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity
no data available
Teratogenicity
no data available
Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available
Aspiration hazard
no data available
Potential health effects
Inhalation Toxic if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Signs and Symptoms of Exposure
Prolonged inhalation of crystalline silica may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis. In advanced stages, loss of appetite, pleuritic pain, and total incapacity to work. Advanced silicosis may result in death due to cardiac failure or destruction of lung tissue. Crystalline silica is classified as group 1 "known to be carcinogenic to humans" by IARC and "sufficient evidence" of carcinogenicity by the NTP., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Synergistic effects
no data available
Additional Information
RTECS: WW2710000

1317-65-3 Calcium Carbonate

IARC Classification Not Established
General Product Information:
Overexposure to calcium carbonate may result in irritation to eyes, skin and respiratory system. Acute ingestion may result in mild gastrointestinal distress while chronic exposure may result in hypercalcemia, alkalosis and renal impairment. Approximately 70-80% of inhaled calcium carbonate was retained in the lungs. Animal studies suggest that inhalation of calcium carbonate dusts may enhance susceptibility to respiratory infection.

14808-60-7 Crystalline Quartz

IARC Classification Group 1
LD50/LC50:
Not available.
Not available.

Carcinogenicity:
CAS# 7782-42-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
California: carcinogen (airborne particles of respirable size) - initial date 10/1/88
NIOSH: occupational carcinogen

NTP: Suspect carcinogen
OSHA: Possible Select carcinogen
IARC: Group 1 carcinogen
Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: No data available.
Neurotoxicity: No data available.
Mutagenicity: No data available.
Other Studies: No data available.

7631-86-9 Amorphous Silica

IARC Classification Group 3
LD50/LC50:
CAS# 7631-86-9:
Draize test, rabbit, eye: 25 mg/24H Mild;
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Carcinogenicity:
CAS# 7631-86-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: See carcinogenicity
Teratogenicity: No information available.
Reproductive Effects: No information available.
Mutagenicity: Please refer to RTECS for specific information.
Neurotoxicity: No information available.
Other Studies:

9004-36-8 Cellulose Acetate Butyrate

IARC Classification Not Established
Oral LD-50:(rat) >6,400 mg/kg(highest dose tested)

Dermal LD-50: (guinea pig) > 1,000 mg/kg (highest dose tested)

Skin Irritation (guinea pig) slight

Skin Sensitization: (guinea pig) none

123-86-4 n-butyl Acetate

IARC Classification Not Established
Acute oral toxicity: LD50 Rat: 10.8 g/kg

Acute inhalation toxicity: LC50 Rat: 160mh/l, 4h

Acute dermal toxicity: LD50 Rabbit: 17,600 mg/kg

763-69-9 Ethyl-3-Ethoxy Propionate

IARC Classification Not Established
Acute Oral Toxicity: LD 50 Rat: 5g/kg

Acute inhalation toxicity:LC 50 Rat: 1000ppm; 6h

Acute dermal toxicity: LD 50 Rabbit: 9.5 g/kg

8032-32-4 VM & P Naphtha

IARC Classification Not Established
LD50/LC50:

Inhalation, rat: LC50 = 3400 ppm/4H;

Carcinogenicity:
ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans

California: Not listed.
NTP: Not listed.
IARC: Not listed.

Epidemiology: Epidemiological studies involving petroleum refinery workers indicate persons with routine exposure to petroleum or one of its constituents may be at an increased risk to the development of benign neoplasms, digestive tract cancer, and skin cancer.

Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: No information found
Neurotoxicity: No information found

71011-24-0 Quaternary Ammonium Compounds

IARC Classification Not Established
Local effects Contact may irritate or burn eyes.
Chronic effects Hazardous by OSHA criteria. Prolonged exposure may cause chronic effects. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against

silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.
Carcinogenicity Hazardous by OSHA criteria. Cancer hazard. Risk of cancer cannot be excluded with prolonged exposure.
IARC Monographs on Occupational Exposures to Chemical Agents: Overall evaluation
Quartz (14808-60-7) 1 Human carcinogen.
US ACGIH Threshold Limit Values: A2 carcinogen
Quartz (14808-60-7) Group A2 Suspected human carcinogen.
US NTP Report on Carcinogens: Known carcinogen
Quartz (14808-60-7) Known carcinogen.

14567-73-8 Tremolite

IARC Classification Not Established
Acute oral toxicity: LD50 Rat: 10.8 g/kg

Acute inhalation toxicity: LC50 Rat: 160mh/l, 4h

Acute dermal toxicity: LD50 Rabbit: 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 which 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 which 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 which 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

1330-20-7 Xylene

Biodegradability: No data available

Bioaccumulation: No data available

Ecotoxicity effects

Toxicity to fish: 96h LC50 Flathead minnow (oimephales promelas); 23.53-29.97 mg/l
Method: Static
Mortality

Toxicity to daphnia and other aquatic Invertebrates: 24h LC50 Water flea (Daphnia magna): > 100.00 - <1,000.00 mg/l
Method: Static
Mortality

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

100-41-4 Ethylbenzene

Ecological Information

Ecotoxicity: Fish: Rainbow trout: LC50 = 14.0 mg/L; 96 Hr.; Static BioassayFish: Fathead Minnow: LC50 = 12.1 mg/L; 96 Hr.; Flow-through BioassayFish: Bluegill/Sunfish: LC50 = 150.0

mg/L; 96 Hr.; Static Bioassay, pH 6.5-7.9, 21-23 degrees CWater flea EC50 = 2.1 mg/L; 48 Hr.; Static BioassayWater flea EC50 = 75.0 mg/L; 48 Hr.; Static Bioassay Shrimp (mysidoposis bahia), LC50=87.6 mg/L/96hr. Sheepshead minnow LC50=275 mg/L/96hr. Fathead minnow LC50=42.3 mg/L/96hr in hard water &48.5 mg/L/96hr in softwater.
Environmental: Experimental data on the bioconcentration of ethylbenzene 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 ethylbenzene should not significantly bioconcentrate in aquatic organisms. Ethylbenzene has a moderate adsorption for soil. The measured Koc for silt loam was 164
Physical: The predominant photochemical reaction of ethylbenzene 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. Photooxidation products which have been identified include ethylphenol, benzaldehyde, acetophenone and m- and p-ethylnitrobenzene. Ethylbenzene is resistant to hydrolysis. Ethylbenzene does not significantly absorb light above 290 nm in methanol solution.

108-65-6 Methoxy-2-Propyl Acetate

Ecotoxicity:
No Data Available.

Acute Fish toxicity:
LC50/96 HOURS Oryzias latipes (Orange-red killfish) > 100 mg/l

NOEC/96 HOURS Oryzias latipes (Orange-red killfish) 556 mg/l

Acute toxicity to aquatic invertebrates
EC50/48 HOURS Daphnia magna (water flea) 373 mg/l
NOEC/48 HOURS Daphnia magna (water flea) 278 mg/l

Environmental fate and pathways

It may enter soil and water.

Persistence and degradibility
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
Bioconcentration factor (bcf): 94
Method: not reported

Ecotoxicity effects

Toxicity to fish: 96h lc50 rainbow trout, donaldson

trout (oncorhynchus mykiss):
5.80 mg/l
method: renewal
mortality 96h lc50 fathead minnow
(pimephales promelas): 12.60 mg/l
method: static
mortality

Toxicity to dahnia and other aquatic invertebrates.

48 h ec 50 water flea (dapnia magna): 6.00 mg/l
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

78-93-3 Methyl Ethyl Ketone

Biodegradability:
No data available

Bioaccumulation:
No data available

Ecotoxicity effects

Toxicity to fish:
96 h flow-through test LC50 Fathead minnow
(Pinephales promelas): 3,130.00-3,320.00 mg/l

Mortality

Toxicity to daphnia and other aquatic invertebrates:
48 h static test EC50 Water flea (Daphnia magna):
4,025.00-6,440.00 mg/l

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

100-42-5 Styrene

Ecotoxicity: No data available. Cas# 100-42-5:LC50(96Hr.)Fathead Minnow = 46.4` mg/L; Static Bioassay Softwater.LC50(96Hr.)Fathead Minnow = 59.30 mg/L; Static Bioassay, Hardwater.LC50(96Hr.)Bluegill = 25.05 mg/L; Static Bioassay, Softwater.LC50(96Hr.)Goldfish = 64.74 mg/L; Static Bioassay, water.LC50(48Hr.) Water flea = 23.0 mg/L, Unspecified Bioassay.EC50(48Hr.) Water flea = 23.0 mg/L; Unspecified Bioassay.
Environmental: Styrene does not absorb solar radiation at wavelengths above the solar cutoff (approximately 300 nm); therefore, it will not be directly photolyzed in the lower atmosphere (troposphere) or surface water. However, styrene is expected to be involved in indirect photochemical reactions. Styrenes have been found to be very active generators of photochemical smog.
Physical: Styrene released to soil is subject to biodegradation. Volatilization and biodegradation are important transport and degradation processes respectively for styrene in water.
Other: No information available.

67-64-1 Acetone

Biodegradability:

no data available

Bioaccumulation:

no data available

Ecotoxicity to fish:

96 h LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss): 4,740.00-6,330.00 mg/l Method: Static Mortality

96 h LC50 Bluegill (Lepomis macrochirus): 8,300.00 mg/l
Method: Static
Mortality

96 h LC50 Fathead minnow (Pimephales promelas): 8,733.00-
9,482.00 mg/l Method: Flow through
Mortality

Toxicity to daphnia and other aquatic invertebrates:

no data available

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

21645-51-2 Aluminum Hydroxide

Ecotoxicity: Not available
BOD5 and COD: Not available
Products of Biodegradition: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: This product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation: Not available
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13463-67-7 Titanium Dioxide

Ecotoxicity: Daphnia: Daphnia: LC50 = 32-32.5 mg/L; 30D; EC0 Bacteria:EC0 = 5 g/LPseudomonas fluorescens: EC0 > 10000 mg/L / 24HPseudomonas fluorescens: EC0 > 5000 mg/L / 24HFish:Phoxinus phoxinus: LC0 >=1000 mg/L / 30DCoregonus autumnalis migratorius G: LC0 = 3mg/L / 30DCyprinodon variegatus: LC50 <370 >240 mg/L / 96HOpossum shrimp:Mysidopsis almyra: LC50 <400 >300 mg/L / 96H
Environmental: No information available.
Physical: No information available.
Other: No information available.

1333-86-4 Carbon Black

No information available.

14807-96-6 Talc

No data available.

1317-65-3 Calcium Carbonate

General Product Information:
This material is not expected to be harmful to aquatic life.

Component Analysis - Ecotoxicity - Aquatic Toxicity:
No ecotoxicity data are available for this product's components.

Environmental Fate:
This material shows no bioaccumulation or food chain concentration toxicity potential.

14808-60-7 Crystalline Quartz

Ecotoxicity: Not available.
Environmental Fate: Not available.
Physical/Chemical: Not available.
Other: Not available.

7631-86-9 Amorphous Silica

No information available.

9004-36-8 Cellulose Acetate Butyrate

No data available.

123-86-4 n-butyl Acetate

Aquatic toxicity

Acute and Prolonged Toxicity to Fish: No data

Acute Toxicity to Aquatic Invertebrates: No data

Environmental fate and pathways: No data

763-69-9 Ethyl-3-Ethoxy Propionate

Biodegradability: no data available

Bioaccumulation: no data available

Exotoxicity effects
Toxicity to fish: no data available

Toxicity to daphnia and other acquatic invertebrates: no data available

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

8032-32-4 VM & P Naphtha

Ecotoxicity: No data available.

This chemical is expected to cause some oxygen depletion in
aquatic systems. It has a low potential to affect aquatic systems. It has a low potential to affect
aquatic organisms, secondary waste treatment microorganisms and the germination of some plants. It has a
moderate potential to affect the germination and growth of some plants.

Environmental: No information available.
Physical: No information available.
Other: No information available.

71011-24-0 Quaternary Ammonium Compounds

Ecotoxicity This product has no known eco-toxicological effects.
Persistence and degradability Not available.

14567-73-8 Tremolite

Aquatic toxicity

Acute and Prolonged Toxicity to Fish: No data

Acute Toxicity to Aquatic Invertebrates: No data

Environmental fate and pathways: No data

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	6.2
100-41-4	Ethylbenzene	1.4
108-88-3	Toluene	6.4
78-93-3	Methyl Ethyl Ketone	0.3
100-42-5	Styrene	0.1
67-64-1	Acetone	12.0

PROP 65

CAS No.	CHEMICAL COMPOUND	% by WT
100-41-4	Ethylbenzene	1.4
108-88-3	Toluene	6.4
1333-86-4	Carbon Black	0.2

TSCA CERTIFICATION:

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is 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.