

## Safety Data Sheet



### Section 1: Identification

#### Product identifier

**Product Name** • Reno Pump 70 LC  
**Product Code** • 153600

#### Relevant identified uses of the substance or mixture and uses advised against

**Recommended use** • Refractory applications

#### Details of the supplier of the safety data sheet

**Manufacturer** • Reno Refractories, Inc.  
P O Box 201  
Morris, AL 35116  
United States  
www.renorefractories.com  
sales@renorefractories.com  
**Telephone (General)** • 205-647-0240

#### Emergency telephone number

**Manufacturer** • 1-800-262-8200 - CHEMTREC

### Section 2: Hazard Identification

#### United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

#### Classification of the substance or mixture

**OSHA HCS 2012** • Carcinogenicity 1A  
Specific Target Organ Toxicity Repeated Exposure 1

#### Label elements

OSHA HCS 2012

**DANGER**



**Hazard statements** • May cause cancer.  
Causes damage to organs through prolonged or repeated exposure.

#### Precautionary statements

**Prevention** • Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust.

Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves, clothing, and eye/face protection, .

**Response** • IF exposed or concerned: Get medical advice/attention.

**Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Other hazards

### OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Canada

According to: WHMIS

## Classification of the substance or mixture

### WHMIS

- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

## Label elements

### WHMIS



### WHMIS

- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

## Other hazards

### WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

## Section 3 - Composition/Information on Ingredients

## Substances

- Material does not meet the criteria of a substance.

## Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Alumina Silicate	<i>Proprietary</i>	42.1% TO 48.66%	NDA	OSHA HCS 2012: STOT RE 2 (Lungs)	NDA
Aluminum oxide	CAS:1344-28 -1	20.79% TO 29%	Inhalation-Rat LC50 • 0.2 mg/L 5 Hour(s) 28 Week(s)	OSHA HCS 2012: Not Classified	NDA
Silica, amorphous	CAS:7631-86 -9	< 9.34%	NDA	OSHA HCS 2012: Not Classified	NDA
Cement, alumina, chemicals	CAS:65997- 16-2	5% TO 9%	NDA	OSHA HCS 2012: Not Classified	NDA
Aluminum(III) silicate (2:1)	CAS:1302-76 -7	3.4% TO 8.55%	NDA	OSHA HCS 2012: STOT RE 2 (Lungs)	NDA
Amorphous silica fume	CAS:69012- 64-2	3.6% TO 8%	NDA	OSHA HCS 2012: STOT RE 1 (Lungs)	NDA

Quartz	CAS:14808-60-7	0.2% TO 0.9%	NDA	OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs)	NDA
Titanium dioxide	CAS:13463-67-7	0.04% TO 0.45%	NDA	OSHA HCS 2012: Carc. 2	NDA
Dispersing Agent	Proprietary	< 0.14%		OSHA HCS 2012: Exposure limits	NDA
Cristobalite	CAS:14464-46-1	< 0.123%	NDA	OSHA HCS 2012: Carc. 1A	NDA
Dispersing Agent	Proprietary	< 0.08%	Ingestion/Oral-Rat LD50 • 3053 mg/kg	OSHA HCS 2012: WHMIS: Other Toxic Effects - D2B	NDA
Dispersing Agent	Proprietary	< 0.0176%		OSHA HCS 2012: Exposure limits	NDA
Dispersing Agent	Proprietary	<= 0.008%	Ingestion/Oral-Rat LD50 • 4 g/kg	OSHA HCS 2012: Exposure limits	NDA
Formaldehyde	CAS:50-00-0	<= 0.00001%	Ingestion/Oral-Rat LD50 • 100 mg/kg Inhalation-Rat LC50 • 250 ppm 2 Hour(s) Skin-Rabbit LD50 • 270 mg/kg	OSHA HCS 2012: Exposure limits	NDA

## Section 4: First-Aid Measures

### Description of first aid measures

#### Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately.

#### Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If skin irritation occurs: Get medical advice/attention.

#### Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

#### Ingestion

- Rinse mouth. Do not give anything by mouth to an unconscious person. Get medical attention immediately.

### Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

### Indication of any immediate medical attention and special treatment needed

#### Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## Section 5: Fire-Fighting Measures

### Extinguishing media

**Suitable Extinguishing Media** • Material is non-combustible. In case of fire use media as appropriate for surrounding fire.

**Unsuitable Extinguishing Media** • None known.

### Special hazards arising from the substance or mixture

**Unusual Fire and Explosion Hazards** • None known.

**Hazardous Combustion Products** • None known.

### Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Wear chemical protective clothing that is specifically recommended by the

manufacturer. It may provide little or no thermal protection.

## Section 6 - Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

#### Personal Precautions

- Isolate hazard area and deny entry to unauthorized and/or unprotected personnel. Do not walk through spilled material. Ensure adequate ventilation to remove vapors, fumes, dust etc. Wear appropriate personal protective equipment, avoid direct contact.

#### Emergency Procedures

- Ventilate closed spaces before entering. Isolate hazard area and deny entry to unauthorized and/or unprotected personnel.

### Environmental precautions

- No specific actions or treatments recommended related to exposure to this material.

### Methods and material for containment and cleaning up

#### Containment/Clean-up Measures

- Avoid generating dust.  
FOR SMALL SPILLS: Clean with a vacuum with a filtration system sufficient to remove and prevent recirculation of crystalline silica (a vacuum equipped with a high-efficiency particulate air (HEPA) filter is recommended).  
FOR LARGE SPILLS: Use a fine spray or mist to control dust creation and carefully scoop or shovel into clean dry container for later reuse or disposal.  
If, an appropriate vacuum is unavailable, only wet-clean-up methods should be used (i.e. misting). Moisture should be added as necessary to reduce exposure to airborne respirable silica dust.

## Section 7 - Handling and Storage

### Precautions for safe handling

#### Handling

- Use good safety and industrial hygiene practices. Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact. Wear long sleeves and/or protective coveralls. Do not breathe dust. Avoid contact with skin, eyes, and clothing. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Contaminated clothing must be vacuumed before removal. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash thoroughly after handling.

### Conditions for safe storage, including any incompatibilities

#### Storage

- Store in a covered location. Keep container closed. Keep from freezing. Storage and work area should be periodically cleaned to minimize dust accumulation.

## Section 8 - Exposure Controls/Personal Protection

### Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Ontario	Canada Quebec	Mexico	NIOSH
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	1.5 ppm Ceiling	2 ppm Ceiling; 3 mg/m <sup>3</sup> Ceiling	2 ppm Ceiling; 3 mg/m <sup>3</sup> Ceiling	0.1 ppm Ceiling (15 min)
	STELs	Not established	1.0 ppm STEL	Not established	Not established	Not established
	TWAs	Not established	Not established	Not established	Not established	0.016 ppm TWA
Dispersing Agent (Proprietary)	TWAs	Not established	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWAEV	Not established	5 mg/m <sup>3</sup> TWA
	STELs	Not established	Not established	Not established	20 mg/m <sup>3</sup> STEL [LMPE-CT] (as Ti)	Not established

Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWA	10 mg/m3 TWA	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust)	10 mg/m3 TWA LMPE-PPT (as Ti)	Not established
Cristobalite (14464-46-1)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.05 mg/m3 TWA (designated substances regulation, respirable, listed under Silica, crystalline)	0.05 mg/m3 TWAEV (respirable dust)	0.05 mg/m3 TWA LMPE-PPT (respirable fraction)	0.05 mg/m3 TWA (respirable dust)
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.10 mg/m3 TWA (designated substances regulation, respirable, listed under Silica, crystalline)	0.1 mg/m3 TWAEV (respirable dust)	0.1 mg/m3 TWA LMPE-PPT (respirable fraction)	0.05 mg/m3 TWA (respirable dust)
Amorphous silica fume (69012-64-2)	TWAs	Not established	2 mg/m3 TWA (respirable, listed under Silica fume)	2 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, respirable dust)	2 mg/m3 TWA LMPE-PPT; 10 mg/m3 TWA LMPE-PPT (inhalable particulate); 3 mg/m3 TWA LMPE-PPT (respirable particulate)	Not established
Cement, alumina, chemicals	TWAs	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended) <i>as Particulates not otherwise classified (PNOC)</i>	10 mg/m3 TWA (inhalable); 3 mg/m3 TWA (respirable) <i>as Particulates not otherwise classified (PNOC)</i>	10 mg/m3 TWAEV (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica, total dust) <i>as Particulates not otherwise classified (PNOC)</i>	Not established	Not established
Silica, amorphous (7631-86-9)	TWAs	Not established	Not established	Not established	Not established	6 mg/m3 TWA
Aluminum oxide (1344-28-1)	TWAs	1 mg/m3 TWA (respirable fraction) <i>as Aluminum insoluble compounds</i>	1 mg/m3 TWA (respirable) <i>as Aluminum insoluble compounds</i>	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust, as Al)	10 mg/m3 TWA LMPE-PPT	Not established

**Exposure Limits/Guidelines (Con't.)**

	Result	OSHA
Formaldehyde (50-00-0)	STELs	2 ppm STEL (see 29 CFR 1910.1048)
	TWAs	0.75 ppm TWA
Titanium dioxide (13463-67-7)	TWAs	15 mg/m3 TWA (total dust)
Cement, alumina, chemicals	TWAs	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) <i>as Particulates not otherwise classified (PNOC)</i>
Aluminum oxide (1344-28-1)	TWAs	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

**Exposure Limits Supplemental  
OSHA**

- Silica, amorphous (7631-86-9): **Mineral Dusts:** (20 mppcf TWA; (80)/(%)SiO<sub>2</sub>) mg/m<sup>3</sup> TWA)
- Cristobalite (14464-46-1): **Mineral Dusts:** ((1/2)(30)/(%)SiO<sub>2</sub> + 2) mg/m<sup>3</sup> TWA, total dust; (1/2)(250)/(%)SiO<sub>2</sub> + 5) mppcf TWA, respirable fraction; (1/2)(10)/(%)SiO<sub>2</sub> + 2) mg/m<sup>3</sup> TWA, respirable fraction)
- Quartz (14808-60-7): **Mineral Dusts:** ((30)/(%)SiO<sub>2</sub> + 2) mg/m<sup>3</sup> TWA, total dust; (250)/(%)SiO<sub>2</sub> + 5) mppcf TWA, respirable fraction; (10)/(%)SiO<sub>2</sub> + 2) mg/m<sup>3</sup> TWA, respirable fraction)

**Exposure controls**

**Engineering  
Measures/Controls**

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment). Collection systems must be designed and maintained to prevent the accumulation and recirculation of respirable silica into the workplace.

**Personal Protective Equipment**

**Respiratory**

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

**Eye/Face**

- Wear protective eyewear (goggles, face shield, or safety glasses).

**Hands**

- Wear appropriate gloves.

**Skin/Body**

- Wear long sleeves and/or protective coveralls.

**General Industrial Hygiene  
Considerations**

- Do not breathe dust. Avoid contact with skin, eyes or clothing. Do not remove dusts from clothing by blowing or shaking. Do not eat, drink or smoke during work. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

**Environmental Exposure  
Controls**

- Follow best practice for site management and disposal of waste. Dispose of in an approved landfill.

**Key to abbreviations**

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

**Section 9 - Physical and Chemical Properties**

**Information on Physical and Chemical Properties**

<b>Material Description</b>			
Physical Form	Solid	Appearance/Description	Gray granular dry powder with an earthy odor.
Color	Gray	Odor	Earthy
Particulate Size	600 µ	Odor Threshold	No data available
<b>General Properties</b>			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available

Specific Gravity/Relative Density	2.2 to 2.9 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	No data available		
<b>Volatility</b>			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	VOC (Wt.)	0 %
VOC (Vol.)	0 %		
<b>Flammability</b>			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
<b>Environmental</b>			
Octanol/Water Partition coefficient	No data available		

## Section 10: Stability and Reactivity

### Reactivity

- No dangerous reaction known under conditions of normal use.

### Chemical stability

- Stable under normal temperatures and pressures.

### Possibility of hazardous reactions

- Hazardous polymerization will not occur.

### Conditions to avoid

- No data available

### Incompatible materials

- No data available

### Hazardous decomposition products

- No data available

## Section 11 - Toxicological Information

### Information on toxicological effects

Components		
Silica, amorphous (< 9.34%)	7631-86-9	<b>Irritation:</b> Eye-Rabbit • 25 mg 24 Hour(s) • Mild irritation
Cristobalite (< 0.123%)	14464-46-1	<b>Acute Toxicity:</b> Inhalation-Human TClO • 16 mppcf 8 Hour(s) 17.9 Year(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Fibrosis, focal (pneumoconiosis); Lungs, Thorax, or Respiration:Cough; Lungs, Thorax, or Respiration:Dyspnea;</i> <b>Multi-dose Toxicity:</b> Inhalation-Mouse TClO • 43 mg/m <sup>3</sup> 5 Hour(s) 9 Day(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Pleural effusion; Lungs, Thorax, or Respiration:Other changes</i>
Titanium dioxide (0.04% TO 0.45%)	13463-67-7	<b>Irritation:</b> Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; <b>Tumorigen / Carcinogen:</b> Inhalation-Rat TClO • 250 mg/m <sup>3</sup> 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</i>

GHS Properties	Classification
<b>Acute toxicity</b>	OSHA HCS 2012 • No data available

<b>Skin corrosion/Irritation</b>	OSHA HCS 2012 • No data available
<b>Serious eye damage/Irritation</b>	OSHA HCS 2012 • No data available
<b>Skin sensitization</b>	OSHA HCS 2012 • No data available
<b>Respiratory sensitization</b>	OSHA HCS 2012 • No data available
<b>Aspiration Hazard</b>	OSHA HCS 2012 • No data available
<b>Carcinogenicity</b>	OSHA HCS 2012 • Carcinogenicity 1A
<b>Germ Cell Mutagenicity</b>	OSHA HCS 2012 • No data available
<b>Toxicity for Reproduction</b>	OSHA HCS 2012 • No data available
<b>STOT-SE</b>	OSHA HCS 2012 • No data available
<b>STOT-RE</b>	OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1

**Target Organs**

- [[206]]

**Route(s) of entry/exposure**

- Inhalation, Skin, Eye, Ingestion

**Medical Conditions Aggravated by Exposure**

- Any pre-existing conditions of the lungs. Disorders of the lungs.

**Potential Health Effects****Inhalation****Acute (Immediate)**

- Nuisance dust may affect the lungs but reactions are typically reversible.

**Chronic (Delayed)**

- Chronic overexposure to dust containing respirable sized crystalline silica can cause delayed lung injury (silicosis). Inhalation of dust containing crystalline silica pulmonary diseases such as asthma and lung disorder associated with smoking.

**Skin****Acute (Immediate)**

- Exposure to dust may cause mechanical irritation.

**Chronic (Delayed)**

- No data available.

**Eye****Acute (Immediate)**

- Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

**Chronic (Delayed)**

- No data available.

**Ingestion****Acute (Immediate)**

- Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

**Chronic (Delayed)**

- No data available.

**Carcinogenic Effects**

- May cause cancer. IARC studies have shown sufficient evidence from animal studies to categorize crystalline silica as a group 1 carcinogen.

<b>Carcinogenic Effects</b>				
	<b>CAS</b>	<b>OSHA</b>	<b>IARC</b>	<b>NTP</b>
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Titanium dioxide	13463-67-7	Not Listed	Group 2B-Possible Carcinogen	Not Listed
Cristobalite	14464-46-1	Not Listed	Group 1-Carcinogenic	Not Listed
Quartz	14808-60-7	Not Listed	Group 1-Carcinogenic	Known Human Carcinogen

**Key to abbreviations**

TC = Toxic Concentration

**Section 12 - Ecological Information**



**Toxicity**

- Material data lacking.

**Persistence and degradability**

- Material data lacking.

**Bioaccumulative potential**

- Material data lacking.

**Mobility in Soil**

- Material data lacking.

**Other adverse effects**

- No studies have been found.

**Section 13 - Disposal Considerations****Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Packaging waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Section 14 - Transport Information**

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

**Special precautions for user** • None specified.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** • No data available

**Section 15 - Regulatory Information****Safety, health and environmental regulations/legislation specific for the substance or mixture**

**SARA Hazard Classifications** • Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Aluminum oxide	1344-28-1	Yes	Yes	Yes
Cristobalite	14464-46-1	Yes	Yes	Yes
Dispersing Agent	<i>Proprietary</i>	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes	Yes
Quartz	14808-60-7	Yes	Yes	Yes
Silica, amorphous	7631-86-9	Yes	Yes	Yes

Titanium dioxide	13463-67-7	Yes	Yes	Yes
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Inventory			
Component	CAS	Canada DSL	TSCA
Aluminum oxide	1344-28-1	Yes	Yes
Cristobalite	14464-46-1	Yes	Yes
Dispersing Agent	<i>Proprietary</i>	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes
Quartz	14808-60-7	Yes	Yes
Silica, amorphous	7631-86-9	Yes	Yes
Titanium dioxide	13463-67-7	Yes	Yes

**Canada**

**Labor**

**Canada - WHMIS - Classifications of Substances**

• Formaldehyde	50-00-0	A, B1, D1A, D2A, D2B; B3, D1A, D2A, D2B, E (regulated under Formol)
• Titanium dioxide	13463-67-7	D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Titanium dioxide, mixture containing on Health Canada's WHMIS Division website.)
• Dispersing Agent	<i>Proprietary</i>	D2B (listed under Sodium pyrophosphate)
• Aluminum oxide	1344-28-1	Uncontrolled product according to WHMIS classification criteria
• Cristobalite	14464-46-1	D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.)
• Silica, amorphous	7631-86-9	Uncontrolled product according to WHMIS classification criteria
• Quartz	14808-60-7	D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.)

**Canada - WHMIS - Ingredient Disclosure List**

• Formaldehyde	50-00-0	0.1 %
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	1 %

• Aluminum oxide	1344-28-1	1 %
• Cristobalite	14464-46-1	1 %
• Silica, amorphous	7631-86-9	1 %
• Quartz	14808-60-7	1 %

**Environment**

**Canada - CEPA - Priority Substances List**

• Formaldehyde	50-00-0	Priority Substance List 2 (substance considered toxic)
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**Canada - CEPA - Schedule I - List of Toxic Substances**

• Formaldehyde	50-00-0	
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**United States**

**Labor**

**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Formaldehyde	50-00-0	1000 lb TQ
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - OSHA - Specifically Regulated Chemicals**

• Formaldehyde	50-00-0	2 ppm STEL (See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level (See 29 CFR 1910.1048); 0.75 ppm TWA (See 29 CFR 1910.1048)
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**Environment**

**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Formaldehyde	50-00-0	
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed

• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities**

• Formaldehyde	50-00-0	100 lb final RQ; 45.4 kg final RQ
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs**

• Formaldehyde	50-00-0	100 lb EPCRA RQ
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs**

• Formaldehyde	50-00-0	500 lb TPQ
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

• Formaldehyde	50-00-0	0.1 % de minimis concentration
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	1.0 % de minimis concentration (fibrous forms)
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII**

• Formaldehyde	50-00-0	Included in waste streams: K009, K010, K038, K040, K156, K157
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261**

• Formaldehyde	50-00-0	waste number U122
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics**

• Formaldehyde	50-00-0	waste number U122
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**United States - California**

**Environment**

**U.S. - California - Proposition 65 - Carcinogens List**

• Formaldehyde	50-00-0	carcinogen, 1/1/1988 (gas) carcinogen, 9/2/2011
• Titanium dioxide	13463-67-7	(airborne, unbound particles of respirable size)
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	carcinogen, 10/1/1988 (airborne particles of respirable size)

**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**

• Formaldehyde	50-00-0	40 µg/day NSRL (gas)
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**United States - Pennsylvania**

**Labor**

**U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Formaldehyde	50-00-0	
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

**U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances**

• Formaldehyde	50-00-0	
• Titanium dioxide	13463-67-7	Not Listed
• Dispersing Agent	<i>Proprietary</i>	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Quartz	14808-60-7	Not Listed

## Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer.

## Section 16 - Other Information

### Revision Date

- 30/April/2018

### Last Revision Date

- 08/January/2016

### Preparation Date

- 08/January/2016

### Disclaimer/Statement of Liability

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### Key to abbreviations

NDA = No data available