Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Reno NC 6044 HT**

Product Code • 187800

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 • Skin Sensitization 1
Germ Cell Mutagenicity 1A
Carcinogenicity 1A
Reproductive Toxicity 1A
Specific Target Organ Toxicity Repeated Exposure 1

Label elements

OSHA HCS 2012

DANGER

Hazard statements • May cause an allergic skin reaction
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.

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.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, clothing , and eye/face protection , .

Response
- If on skin: Wash with plenty of water .
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
If skin irritation or rash occurs: Get medical advice/attention.
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**
Aluminum oxide	**CAS:**1344-28-1	< 80%	Inhalation-Rat LC50 • 0.2 mg/L 5 Hour(s) 28 Week(s)	**OSHA HCS 2012:** Not Classified

Silicon carbide	**CAS:**409-21-2	10.5% TO 15.2%	NDA	**OSHA HCS 2012:** STOT RE 2 (Lungs)
Metal	*Proprietary*	0.997% TO 4%	NDA	**OSHA HCS 2012:** STOT RE 2 (Lungs, Inhl)
Amorphous silica fume	**CAS:**69012-64-2	0.6% TO 4%	NDA	**OSHA HCS 2012:** STOT RE 1 (Lungs)
Aluminum(III) silicate (2:1)	**CAS:**1302-76-7	1.7% TO 3.8%	NDA	**OSHA HCS 2012:** STOT RE 2 (Lungs)
Resinous Carbon	*Proprietary*	1% TO 3%	NDA	**OSHA HCS 2012:** Skin Sens. 1; Repr. 1A; Carc. 1A; Muta. 1A
Mullite	**CAS:**1302-93-8	0.87% TO 2%	NDA	**OSHA HCS 2012:** STOT RE 2 (Lungs)
Carbide	*Proprietary*	< 0.485%	NDA	**OSHA HCS 2012:** Not Classified
Quartz	**CAS:**14808-60-7	0.1% TO 0.414%	NDA	**OSHA HCS 2012:** Carc. 1A; STOT RE 1 (Lungs)
Amorphous/fused silica	**CAS:**60676-86-0	< 0.4%	NDA	**OSHA HCS 2012:** Not Classified
Silica, amorphous	**CAS:**7631-86-9	< 0.26%	NDA	**OSHA HCS 2012:** Not Classified
Titanium dioxide	**CAS:**13463-67-7	0.02% TO 0.2%	NDA	**OSHA HCS 2012:** Carc. 2
Iron oxide	**CAS:**1309-37-1	< 0.2%	NDA	**OSHA HCS 2012:** Not Classified
Chemical 1	*Proprietary*	< 0.1088%	NDA	**OSHA HCS 2012:** Not Classified
Sodium hydroxide	**CAS:**1310-73-2	< 0.05%	NDA	**OSHA HCS 2012:** Exposure limits
Calcium oxide	**CAS:**1305-78-8	< 0.05%	NDA	**OSHA HCS 2012:** Exposure limits
Cristobalite	**CAS:**14464-46-1	< 0.007%	NDA	**OSHA HCS 2012:** Carc. 1A
Benzo(a)pyrene	**CAS:**50-32-8	< 0.0015%	NDA	**OSHA HCS 2012:** Exposure limits

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.

Skin
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.

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

Ingestion
- Rinse mouth. Do not give anything by mouth to an unconscious person.

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 thepatient. Consideration should be given to the possibility that overexposure to materialsother than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media
- This product does not burn or support combustion. Use extinguishing agent suitable for type of 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

- 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.
Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions
- Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not walk through spilled material. Ventilate enclosed areas.

Emergency Procedures
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. Keep unauthorized personnel away. Stay upwind.

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.
Wet down material before clean-up. Use vacuums with high-efficiency particulate air (HEPA) filters or wet-sweeping for clean-up. Never dry sweep or blow dust with compressed air.

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 Manitoba**	**Canada Ontario**	**Canada Quebec**	**Mexico**
Benzo(a)pyrene (50-32-8)	Designated Substances	Not established	Present	Not established	Not established	Not established
	TWAs	Not established	Not established	exposure by all routes should be carefully controlled to levels as low as possible	0.005 mg/m3 TWAEV	Not established
Cristobalite (14464-46-1)	TWAs	0.025 mg/m3 TWA (respirable fraction)	Not established	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)
Titanium dioxide (13463-67-7)	STELs	Not established	Not established	Not established	Not established	20 mg/m3 STEL [LMPE-CT] (as Ti)
	TWAs	10 mg/m3 TWA	Not established	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)
Sodium hydroxide (1310-73-2)	Ceilings	2 mg/m3 Ceiling	Not established	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling
Calcium oxide (1305-78-8)	TWAs	2 mg/m3 TWA	Not established	2 mg/m3 TWA	2 mg/m3 TWAEV	2 mg/m3 TWA LMPE -PPT
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	Not established	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)
Chemical 1 (Proprietary)	TWAs	10 mg/m3 TWA (inhalable fraction)	Not established	10 mg/m3 TWA (inhalable)	10 mg/m3 TWAEV (fume, as Mg)	10 mg/m3 TWA LMPE-PPT (fume, as Mg)
Iron oxide (1309-37-1)	STELs	Not established	Not established	Not established	Not established	10 mg/m3 STEL [LMPE-CT] (as Fe)
	TWAs	5 mg/m3 TWA (respirable fraction)	Not established	5 mg/m3 TWA (respirable)	5 mg/m3 TWAEV (dust and fume, as Fe); 10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, regulated under Rouge, total dust)	5 mg/m3 TWA LMPE -PPT
Amorphous/fused silica (60676-86-0)	TWAs	Not established	Not established	0.1 mg/m3 TWA (respirable)	0.1 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, respirable dust)	0.1 mg/m3 TWA LMPE-PPT; 10 mg/m3 TWA LMPE-PPT (inhalable particulate); 3 mg/m3 TWA LMPE-PPT (respirable

						particulate)
Amorphous silica fume (69012-64-2)	TWAs	Not established	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)
Metal (Proprietary)	TWAs	1 mg/m3 TWA (respirable fraction)	Not established	1 mg/m3 TWA (respirable)	10 mg/m3 TWAEV	10 mg/m3 TWA LMPE-PPT (dust)
Resinous Carbon (Proprietary)	TWAs	Not established	Not established	Not established	Not established	10 mg/m3 TWA LMPE-PPT
Silicon carbide (409-21-2)	STELs	Not established	Not established	Not established	Not established	20 mg/m3 STEL [LMPE-CT]
	TWAs	10 mg/m3 TWA (nonfibrous, inhalable fraction, particulate matter containing no asbestos and <1% crystalline silica); 3 mg/m3 TWA (nonfibrous, respirable fraction, particulate matter containing no asbestos and <1% crystalline silica); 0.1 fiber/cm3 TWA (as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination., respirable fibers, including whiskers, length >5 µm, aspect ratio >=3:1)	Not established	10 mg/m3 TWA (non-fibrous, containing no Asbestos and <1% Crystalline silica, inhalable); 3 mg/m3 TWA (non-fibrous, containing no Asbestos and <1% Crystalline silica, respirable); 0.1 fibre/cm3 TWA (fibrous, including whiskers, fibres >5 µm in length and an aspect ratio >=3:1 as determined by the membrane filter method at 400-450 times magnification (4-mm objective), using phase-contrast illumination, respirable)	10 mg/m3 TWAEV (non fibrous, containing no Asbestos and <1% Crystalline silica, total dust)	10 mg/m3 TWA LMPE-PPT
Aluminum oxide (1344-28-1)	TWAs	1 mg/m3 TWA (respirable fraction) *as Aluminum insoluble compounds*	Not established	1 mg/m3 TWA (respirable) *as Aluminum insoluble compounds*	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust, as Al)	10 mg/m3 TWA LMPE-PPT

Exposure Limits/Guidelines (Con't.)

	Result	NIOSH	OSHA
Benzo(a)pyrene (50-32-8)	TWAs	Not established	0.2 mg/m3 TWA (listed under Coal tar pitch volatiles)
Cristobalite (14464-46-1)	TWAs	0.05 mg/m3 TWA (respirable dust)	Not established
Titanium dioxide (13463-67-7)	TWAs	Not established	15 mg/m3 TWA (total dust)
Sodium hydroxide	TWAs	Not established	2 mg/m3 TWA

(1310-73-2)	Ceilings	2 mg/m3 Ceiling	Not established
Calcium oxide (1305-78-8)	TWAs	2 mg/m3 TWA	5 mg/m3 TWA
Quartz (14808-60-7)	TWAs	0.05 mg/m3 TWA (respirable dust)	Not established
Chemical 1 (Proprietary)	TWAs	Not established	15 mg/m3 TWA (fume, total particulate)
Iron oxide (1309-37-1)	TWAs	5 mg/m3 TWA (dust and fume, as Fe)	10 mg/m3 TWA (fume); 15 mg/m3 TWA (total dust, listed under Rouge); 5 mg/m3 TWA (respirable fraction, listed under Rouge)
Silica, amorphous (7631-86-9)	TWAs	6 mg/m3 TWA	Not established
Metal (Proprietary)	TWAs	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Silicon carbide (409-21-2)	TWAs	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Aluminum oxide (1344-28-1)	TWAs	Not established	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

Exposure Control Notations

Mexico

- Silicon carbide (409-21-2): **Carcinogens:** (A4 - Not classifiable as a human carcinogen)
- Aluminum oxide (1344-28-1): **Carcinogens:** (A4 - Not classifiable as a human carcinogen)
- Iron oxide (1309-37-1): **Carcinogens:** (A4 - Not classifiable as a human carcinogen)
- Titanium dioxide (13463-67-7): **Carcinogens:** (A4 - Not classifiable as a human carcinogen)

Canada Ontario

- Cristobalite (14464-46-1): **Designated Substances:** (0.05 mg/m3 TWA (respirable fraction, listed under Silica, crystalline))
- Quartz (14808-60-7): **Designated Substances:** (0.10 mg/m3 TWA (respirable fraction, listed under Silica, crystalline))
- Benzo(a)pyrene (50-32-8): **Known Toxic Agents:** (Known toxic agent)

Canada Quebec

- Quartz (14808-60-7): **Carcinogens:** (C2 carcinogen - effect suspected in humans)
- Benzo(a)pyrene (50-32-8): **Carcinogens:** (C2 carcinogen - effect suspected in humans)

ACGIH

- Cristobalite (14464-46-1): **Carcinogens:** (A2 - Suspected Human Carcinogen)
- Silicon carbide (409-21-2): **Carcinogens:** (A2 - Suspected Human Carcinogen (fibrous, including whiskers))
- Aluminum oxide as Aluminum insoluble compounds: **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Quartz (14808-60-7): **Carcinogens:** (A2 - Suspected Human Carcinogen)
- Iron oxide (1309-37-1): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Chemical 1 (Proprietary): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Titanium dioxide (13463-67-7): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Metal (Proprietary): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Metal as Aluminum insoluble compounds (Proprietary): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Benzo(a)pyrene (50-32-8): **Carcinogens:** (A2 - Suspected Human Carcinogen)

Exposure Limits Supplemental

OSHA

- Cristobalite (14464-46-1): **Mineral Dusts:** ((1/2)(30)/(%SiO2 + 2) mg/m3 TWA, total dust; (1/2)(250)/(%SiO2 + 5) mppcf TWA, respirable fraction; (1/2)(10)/(%SiO2 + 2) mg/m3 TWA, respirable fraction)
- Amorphous/fused silica (60676-86-0): **Mineral Dusts:** ((80)/(% SiO2) mg/m3 TWA; 20 mppcf TWA)
- Quartz (14808-60-7): **Mineral Dusts:** ((30)/(%SiO2 + 2) mg/m3 TWA, total dust; (250)/(%SiO2 + 5) mppcf TWA, respirable fraction; (10)/(%SiO2 + 2) mg/m3 TWA, respirable fraction)
- Silica, amorphous (7631-86-9): **Mineral Dusts:** (20 mppcf TWA; (80)/(% SiO2) mg/m3 TWA)

ACGIH

•Cristobalite (14464-46-1): **TLV Basis - Critical Effects:** (lung cancer; pulmonary fibrosis)
•Silicon carbide (409-21-2): **TLV Basis - Critical Effects:** (upper respiratory tract irritation (nonfibrous); cancer (fibrous, including whiskers); mesothelioma (fibrous, including whiskers))
•Aluminum oxide as Aluminum insoluble compounds: **TLV Basis - Critical Effects:** (pneumoconiosis; lower respiratory tract irritation; neurotoxicity)
•Quartz (14808-60-7): **TLV Basis - Critical Effects:** (lung cancer; pulmonary fibrosis)
•Iron oxide (1309-37-1): **TLV Basis - Critical Effects:** (pneumoconiosis)
•Sodium hydroxide (1310-73-2): **TLV Basis - Critical Effects:** (eye, skin and upper respiratory tract irritation)
•Calcium oxide (1305-78-8): **TLV Basis - Critical Effects:** (upper respiratory tract irritation)
•Titanium dioxide (13463-67-7): **TLV Basis - Critical Effects:** (lower respiratory tract irritation) | **Notice of Intended Changes (TLVs):** (1 mg/m3 TWA (respirable fraction); A3 - confirmed animal carcinogen with unknown relevance to humans; TLV basis: lower respiratory tract irritation, pneumoconiosis)
•Metal (Proprietary): **TLV Basis - Critical Effects:** (pneumoconiosis; lower respiratory tract irritation; neurotoxicity)
•Metal as Aluminum insoluble compounds (Proprietary): **TLV Basis - Critical Effects:** (pneumoconiosis; lower respiratory tract irritation; neurotoxicity)
•Benzo(a)pyrene (50-32-8): **BEIs:** (Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)) | **TLV Basis - Critical Effects:** (cancer) | **No Adopted Value:** (Exposure by all routes should be carefully controlled to levels as low as possible)

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.

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 safety goggles.

Skin/Body
- Wear long sleeves and/or protective coveralls.

General Industrial Hygiene Considerations
- Handle in accordance with good industrial hygiene and safety practice. Do not get in eyes or on skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

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
STEV = Short Term Exposure Value
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures
TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
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
General Properties			
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	= 2.53 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	VOC (Wt.)	0 %
VOC (Vol.)	0 %		
Flammability			
Flash Point	572 °F(300 °C)	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
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		
Cristobalite (< 0.007%)	14464-46-1	**Acute Toxicity:** Inhalation-Human TCLo • 16 mppcf 8 Hour(s) 17.9 Year(s)-Intermittent; *Lungs, Thorax, or Respiration*:**Fibrosis, focal (pneumoconiosis)**; *Lungs, Thorax, or Respiration*:**Cough**; *Lungs, Thorax, or Respiration*:**Dyspnea**; **Multi-dose Toxicity:** Inhalation-Mouse TCLo • 43 mg/m³ 5 Hour(s) 9 Day(s)-Intermittent; *Lungs, Thorax, or Respiration*:**Pleural effusion**; *Lungs, Thorax, or Respiration*:**Other changes**
Chemical 1 (< 0.1088%)	*Proprietary*	**Multi-dose Toxicity:** Inhalation-Rat TCLo • 1000 mg/m³ 4 Hour(s) 50 Day(s)-Intermittent; *Lungs, Thorax, or Respiration*:**Other changes**; *Blood*:**Other hemolysis with or without anemia**
Titanium dioxide (0.02% TO 0.2%)	13463-67-7	**Irritation:** Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; **Tumorigen / Carcinogen:** Inhalation-Rat TCLo • 250 mg/m³ 6 Hour(s) 2 Year(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Lungs, Thorax, or Respiration*:**Tumors**
Silica,		

amorphous (< 0.26%)	7631-86-9	**Irritation:** Eye-Rabbit • 25 mg 24 Hour(s) • Mild irritation
Metal (0.997% TO 4%)	*Proprietary*	**Multi-dose Toxicity:** Inhalation-Man TCLo • 4 mg/m³ 1 Year(s)-Intermittent; *Lungs, Thorax, or Respiration*:**Cough**; *Lungs, Thorax, or Respiration*:**Dyspnea**; *Nutritional and Gross Metabolic:Gross Metabolite Changes*:**Weight loss or decreased weight gain**; Inhalation-Rat TCLo • 206 mg/m³ 5 Hour(s) 30 Day(s)-Intermittent; *Lungs, Thorax, or Respiration*:**Fibrosis (interstitial)**; *Endocrine*:**Hypoglycemia**; *Blood*:**Changes in serum composition (e.g., TP, bilirubin cholesterol)**

GHS Properties	Classification
Acute toxicity	**OSHA HCS 2012** • No data available
Skin corrosion/Irritation	**OSHA HCS 2012** • No data available
Serious eye damage/Irritation	**OSHA HCS 2012** • No data available
Skin sensitization	**OSHA HCS 2012** • Skin Sensitizer 1
Respiratory sensitization	**OSHA HCS 2012** • No data available
Aspiration Hazard	**OSHA HCS 2012** • No data available
Carcinogenicity	**OSHA HCS 2012** • Carcinogenicity 1A
Germ Cell Mutagenicity	**OSHA HCS 2012** • Germ Cell Mutagenicity 1A
Toxicity for Reproduction	**OSHA HCS 2012** • Toxic to Reproduction 1A
STOT-SE	**OSHA HCS 2012** • No data available
STOT-RE	**OSHA HCS 2012** • Specific Target Organ Toxicity Repeated Exposure 1

Route(s) of entry/exposure
- Inhalation, Skin, Eye, and Ingestion

Medical Conditions Aggravated by Exposure
- Any pre-existing conditions 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).

Skin

Acute (Immediate)
- May cause skin sensitization. Symptoms include redness, and skin rash. Exposure to dust may cause mechanical irritation.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- Exposure to dust may cause mechanical irritation. 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.

Mutagenic Effects
- Repeated and prolonged exposure may cause mutagenic effects.

Carcinogenic Effects
- May cause cancer.

Carcinogenic Effects			
	CAS	**IARC**	**NTP**
Benzo(a)pyrene	50-32-8	Group 1-Carcinogenic	Reasonably Anticipated to be Human Carcinogen

Cristobalite	14464-46-1	Group 1-Carcinogenic	Not Listed
Titanium dioxide	13463-67-7	Group 2B-Possible Carcinogen	Not Listed
Quartz	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen

Reproductive Effects
- Repeated and prolonged exposure may cause reproductive effects.

Key to abbreviations
TC = Toxic Concentration
TD = Toxic Dose

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 • Acute, Chronic

State Right To Know				
Component	**CAS**	**MA**	**NJ**	**PA**
Metal	*Proprietary*	Yes	Yes	Yes
Aluminum oxide	1344-28-1	Yes	Yes	Yes
Aluminum(III) silicate (2:1)	1302-76-7	No	No	No
Amorphous/fused silica	60676-86-0	Yes	Yes	No
Benzo(a)pyrene	50-32-8	Yes	Yes	Yes
Carbide	*Proprietary*	No	No	No
Calcium oxide	1305-78-8	Yes	Yes	Yes
Cristobalite	14464-46-1	Yes	Yes	Yes
Iron oxide	1309-37-1	Yes	Yes	Yes
Chemical 1	*Proprietary*	Yes	Yes	Yes
Mullite	1302-93-8	No	No	No
Resinous Carbon	*Proprietary*	No	No	No
Quartz	14808-60-7	Yes	Yes	Yes
Amorphous silica fume	69012-64-2	No	No	No
Silica, amorphous	7631-86-9	Yes	Yes	Yes
Silicon carbide	409-21-2	Yes	No	Yes
Sodium hydroxide	1310-73-2	Yes	Yes	Yes
Titanium dioxide	13463-67-7	Yes	Yes	Yes

Inventory				
Component	**CAS**	**Canada DSL**	**Canada NDSL**	**TSCA**
Metal	*Proprietary*	Yes	No	Yes
Aluminum oxide	1344-28-1	Yes	No	Yes
Aluminum(III) silicate (2:1)	1302-76-7	Yes	No	No
Amorphous/fused silica	60676-86-0	Yes	No	Yes
Benzo(a)pyrene	50-32-8	Yes	No	Yes
Carbide	*Proprietary*	Yes	No	Yes
Calcium oxide	1305-78-8	Yes	No	Yes
Cristobalite	14464-46-1	Yes	No	Yes
Iron oxide	1309-37-1	Yes	No	Yes
Chemical 1	*Proprietary*	Yes	No	Yes
Mullite	1302-93-8	Yes	No	Yes
Resinous Carbon	*Proprietary*	Yes	No	Yes
Quartz	14808-60-7	Yes	No	Yes
Amorphous silica fume	69012-64-2	Yes	No	Yes

Silica, amorphous	7631-86-9	Yes	No	Yes
Silicon carbide	409-21-2	Yes	No	Yes
Sodium hydroxide	1310-73-2	Yes	No	Yes
Titanium dioxide	13463-67-7	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Benzo(a)pyrene	50-32-8	D2A
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	E
• Iron oxide	1309-37-1	Uncontrolled product according to WHMIS classification criteria
• Chemical 1	*Proprietary*	Uncontrolled product according to WHMIS classification criteria
• Sodium hydroxide	1310-73-2	E (including 0.04% in aqueous solution, 0.08%, 0.4% in aqueous solution, 2%, 2.5%, 4% in aqueous solution, 5%, 10%, 16%, 20%, 40%, 50% in aqueous solution, 8.7N)
• 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.)
• Aluminum oxide	1344-28-1	Uncontrolled product according to WHMIS classification criteria
• Metal	*Proprietary*	B6 (powder); Uncontrolled product according to WHMIS classification criteria
• Silicon carbide	409-21-2	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
• Amorphous/fused silica	60676-86-0	Uncontrolled product according to WHMIS classification criteria
• Carbide	*Proprietary*	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.)
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Benzo(a)pyrene	50-32-8	0.1 %
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	1 %
• Iron oxide	1309-37-1	1 %
• Chemical 1	*Proprietary*	1 %
• Sodium hydroxide	1310-73-2	1 %
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	1 %
• Metal	*Proprietary*	1 %
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	1 %
• Silica, amorphous	7631-86-9	1 %
• Amorphous/fused silica	60676-86-0	1 %
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	1 %
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Benzo(a)pyrene	50-32-8	Not Listed
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

Canada - CEPA - Schedule I - List of Toxic Substances

• Benzo(a)pyrene	50-32-8	Not Listed

• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

United States

Labor

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

• Benzo(a)pyrene	50-32-8	Not Listed
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Benzo(a)pyrene	50-32-8	Not Listed
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed

• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

Environment

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

• Benzo(a)pyrene	50-32-8	Not Listed
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

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

• Benzo(a)pyrene	50-32-8	1 lb final RQ; 0.454 kg final RQ
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	1000 lb final RQ; 454 kg final RQ
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Benzo(a)pyrene	50-32-8	Not Listed
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed

• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

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

• Benzo(a)pyrene	50-32-8	Not Listed
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

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

• Benzo(a)pyrene	50-32-8	Not Listed
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

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

• Benzo(a)pyrene	50-32-8	0.1 % Supplier notification limit (listed under Chemical Category N590, Polycyclic aromatic compounds)
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	1.0 % de minimis concentration (fibrous forms)
• Metal	*Proprietary*	1.0 % de minimis concentration (dust or fume only)
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Benzo(a)pyrene	50-32-8	100 lb RT (listed under Polycyclic aromatic compounds)
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

United States - California

Environment

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

• Benzo(a)pyrene	50-32-8	carcinogen, initial date 7/1/87
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed

• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	Not Listed
• Titanium dioxide	13463-67-7	carcinogen, initial date 9/2/11 (airborne, unbound particles of respirable size)
• Aluminum oxide	1344-28-1	Not Listed
• Metal	*Proprietary*	Not Listed
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of respirable size)
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	Not Listed

United States - Pennsylvania

Labor

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

• Benzo(a)pyrene	50-32-8	
• Mullite	1302-93-8	Not Listed
• Amorphous silica fume	69012-64-2	Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Iron oxide	1309-37-1	Not Listed
• Chemical 1	*Proprietary*	Not Listed
• Sodium hydroxide	1310-73-2	
• Titanium dioxide	13463-67-7	Not Listed
• Aluminum oxide	1344-28-1	
• Metal	*Proprietary*	
• Silicon carbide	409-21-2	Not Listed
• Cristobalite	14464-46-1	Not Listed
• Silica, amorphous	7631-86-9	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed
• Carbide	*Proprietary*	Not Listed
• Quartz	14808-60-7	Not Listed
• Aluminum(III) silicate (2:1)	1302-76-7	Not Listed
• Resinous Carbon	*Proprietary*	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	• 01/May/2018
Last Revision Date	• 27/March/2015
Preparation Date	• 01/June/2009

Disclaimer/Statement of Liability

- The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release. Reno Refractories MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. The 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, unless specified in the text.

Key to abbreviations

NDA = No data available