

(Material) Safety Data Sheet

Section 1 - Product and Company Identification

Material Name	▪ Alkaware®
Chemical Name	▪ Silicon oxide, Zircon
Product Description	▪ Including but not limited to: Cream to tan pellets, rings, saddles, trilobes, sphere, snowflake 1 to 50 cm.
Product Use	▪ Heat sink media.
Synonyms	▪ Aluminum Silicate; Zirconium Silicate
Manufacturer	▪ Saint-Gobain NorPro 3840 Fishcreek Road Stow, OH 4424 United States www.NorPro.Saint-Gobain.com
Telephone	
General	▪ 330-677-3598
<u>Emergency</u>	▪ 800-424-9300
<u>Emergency</u>	▪ 703-527-3887
Preparation Date	▪ 09/16/2011
Last Revision Date	▪ 02/29/2016

Key to abbreviations

‡ = HMIS is a registered trademark of the American Coatings Association

Section 2 - Hazards Identification

EMERGENCY OVERVIEW

2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

The product is not classified as hazardous according to the CLP regulation.

· **Additional information:** Adverse health effects are not reasonably expected from normal use of product.

· 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

This product does not have a classification according to the CLP regulation.

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

· **Hazard pictograms** Not Regulated

· **Signal word** Not Regulated

· **Hazard-determining components of labelling:** None.

· **Hazard statements** Not Regulated

· **Precautionary statements** Not Regulated.

· **Additional information:** Safety data sheet available on request.

· **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

Hazardous Components

Chemical Name	CAS	%(wt)	UN;EINECS	LD50/LC50	EU R & S Phrases	Other
Silica, amorphous	7631-86-9	45% TO 55%	NDA	NDA	NDA	NDA
Zirconium Silicate	10101-52-7	25% TO 35%	233-252-7	NDA	NDA	NDA
Aluminum oxide	1344-28-1	5% TO 15%	215-691-6	NDA	NDA	NDA
Calcium silicate	1344-95-2	0% TO 10%	215-710-8	NDA	NDA	NDA
Quartz	14808-60-7	0% TO 5%	238-878-4	NDA	NDA	NDA

Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use. Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use. Under United Nations Globally Harmonized System for the Classification and Labeling of Hazardous Chemicals (GHS) this product is exempt from regulation as a manufactured article.

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.

Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.

Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

Extinguishing Media

- Material is non-combustible. In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media

- Not applicable.

Firefighting Procedures

- Material is non-combustible and is not expected to pose a fire or explosion hazard. Wear appropriate protective clothing.

Unusual Fire and Explosion Hazards

- Material is non-combustible and is not expected to pose a fire or explosion hazard.

Hazardous Combustion Products

- None known.

Protection of Firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

- Personal Precautions**
 - Emergency Procedures**
 - Environmental Precautions**
 - Containment/Clean-up Measures**
- No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. Do not breathe dust. Ventilate enclosed areas
 - No emergency procedures are expected to be necessary if material is used under ordinary conditions and as recommended. Use normal clean up procedures.
 - Prevent entry into waterways, sewers, basements or confined areas
 - Avoid generating dust.
 - Sweep, shovel or vacuum up spilled material and place in appropriate container. If dust clean up is necessary be sure to use vacuum cleaner equipped with HEPA filter.

Section 7 - Handling and Storage

- Handling**
 - Storage**
 - Special Packaging Materials**
 - Incompatible Materials or Ignition Sources**
- Avoid rough handling. Use only with adequate ventilation. Avoid dust inhalation and contact with skin and eyes. Wash thoroughly after handling. Use good safety and industrial hygiene practices. Spilled material may cause surfaces to become slippery.
 - Store in a cool, dry place.
 - No data available.
 - None known.

Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

Pictograms



Respiratory

Eye/Face

Hands

Skin/Body

General Industrial Hygiene Considerations

Engineering

Measures/Controls

- In case of insufficient ventilation, wear suitable respiratory equipment.
- Wear safety glasses.
- Wear appropriate gloves.
- Use of protective coveralls and long sleeves is recommended to prevent possible abrasion to skin.
- Use good industrial hygiene practices in handling this material. Availability of eye wash fountains and emergency showers are recommended.
- Good general ventilation and/or local exhaust ventilation should be used. Ventilation rates should be matched to conditions in order to ensure that concentrations of airborne contaminants are below applicable threshold limit values.

Exposure Limits/Guidelines

	Result	ACGIH	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
Quartz (14808-60-7)	TWAs	0.025 mg/m ³ TWA (respirable fraction)	0.025 mg/m ³ TWA (respirable)	0.025 mg/m ³ TWA (respirable fraction)	0.1 mg/m ³ TWA (respirable fraction)	0.1 mg/m ³ TWA (respirable mass); 0.3 mg/m ³ TWA (total mass)
Calcium silicate	TWAs	10 mg/m ³ TWA (synthetic)	10 mg/m ³ TWA (total particulate)	10 mg/m ³ TWA (synthetic)	10 mg/m ³ TWA (particulate matter)	5 mg/m ³ TWA (respirable mass);

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
(1344-95-2)		nonfibrous, particulate matter containing no asbestos and <1% crystalline silica)	matter containing no asbestos and less than 1% crystalline silica, total particulate); 3 mg/m3 TWA (particulate matter containing no asbestos and less than 1% crystalline silica, respirable particulate)	nonfibrous, particulate matter containing no asbestos and <1% crystalline silica)	containing no asbestos and < 1% crystalline silica)	10 mg/m3 TWA (total mass)
Aluminum oxide (1344-28-1)	TWAs	1 mg/m3 TWA (respirable fraction) as Aluminum insoluble compounds	1.0 mg/m3 TWA (respirable) as Aluminum insoluble compounds	1 mg/m3 TWA (respirable fraction) as Aluminum insoluble compounds	10 mg/m3 TWA (particulate matter containing no asbestos and < 1% crystalline silica)	10 mg/m3 TWA; 5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
	STELs	Not established	Not established	Not established	Not established	20 mg/m3 STEL
Silica, amorphous (7631-86-9)	TWAs	Not established	Not established	Not established	Not established	2 mg/m3 TWA (respirable mass); 5 mg/m3 TWA (total mass); 0.05 mg/m3 TWA (as silica flour, respirable mass); 0.15 mg/m3 TWA (total mass, as silica flour)

Exposure Limits/Guidelines(Con't.)						
	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Yukon
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)	0.10 mg/m3 TWAEV (designated substance regulation)	0.1 mg/m3 TWAEV (respirable dust)	300 particles/mL TWA
Calcium silicate (1344-95-2)	TWAs	10 mg/m3 TWA (synthetic nonfibrous, particulate matter containing no asbestos and <1% crystalline silica)	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWAEV (total dust)	10 mg/m3 TWAEV (total dust, containing no asbestos and less than 1% crystalline silica)	30 mppcf TWA; 10 mg/m3 TWA
Aluminum oxide (1344-28-1)	TWAs	1 mg/m3 TWA (respirable fraction) as Aluminum insoluble compounds	10 mg/m3 TWA; 5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWAEV (total dust)	10 mg/m3 TWAEV (total dust, containing no asbestos and less than 1% crystalline silica, as Al)	30 mppcf TWA; 10 mg/m3 TWA

Exposure Limits/Guidelines(Con't.)						
	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Yukon
	STELs	Not established	20 mg/m3 STEL	Not established	Not established	20 mg/m3 STEL (Al2O3)
Silica, amorphous (7631-86-9)	TWAs	Not established	2 mg/m3 TWA (respirable mass); 5 mg/m3 TWA (total mass); 0.05 mg/m3 TWA (as silica flour, respirable mass); 0.15 mg/m3 TWA (total mass, as silica flour)	Not established	Not established	300 particles/mL TWA; 20 mppcf TWA; 2 mg/m3 TWA (respirable mass)

Exposure Limits/Guidelines(Con't.)					
	Result	China	Japan	NIOSH	OSHA
Quartz (14808-60-7)	STELs	2 mg/m3 STEL (10%-50% free SiO2, total dust); 1.4 mg/m3 STEL (50%-80% free SiO2, total dust); 1 mg/m3 STEL (containing >80% free SiO2, total dust); 1.4 mg/m3 STEL (10%-50% free SiO2, respirable dust); 0.6 mg/m3 STEL (50%-80% free SiO2, respirable dust); 0.4 mg/m3 STEL (containing >80% free SiO2, respirable dust)	Not established	Not established	Not established
	TWAs	1 mg/m3 TWA (containing 10%-50% free SiO2, total dust); 0.7 mg/m3 TWA (containing 50%-80% free SiO2, total dust); 0.5 mg/m3 TWA (containing >80% free SiO2, total dust); 0.7 mg/m3 TWA (containing 10%-50% free SiO2, respirable dust); 0.3 mg/m3 TWA (containing 50%-80% free SiO2, respirable dust); 0.2 mg/m3 TWA (containing >80% free SiO2, respirable dust)	Not established	0.05 mg/m3 TWA (respirable dust)	Not established
Calcium silicate (1344-95-2)	TWAs	Not established	Not established	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	TWAs	4 mg/m3 TWA (total	0.5 mg/m3 OEL	Not established	15 mg/m3 TWA (total

Exposure Limits/Guidelines(Con't.)					
	Result	China	Japan	NIOSH	OSHA
(1344-28-1)		dust)	(respirable dust); 2 mg/m ³ OEL (total dust)		dust); 5 mg/m ³ TWA (respirable fraction)
	STELs	8 mg/m ³ STEL (total dust)	Not established	Not established	Not established
Silica, amorphous (7631-86-9)	TWAs	Not established	Not established	6 mg/m ³ TWA	Not established

Exposure Control Notations

Canada British Columbia

- Quartz (14808-60-7):Carcinogens:ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 1 - Human Carcinogen| Designated Substances:ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 1 - Human Carcinogen

Canada Manitoba

- Calcium silicate (1344-95-2):Carcinogens:A4 Not Classifiable as a Human Carcinogen (synthetic nonfibrous)
- Aluminum oxide as Aluminum insoluble compounds:Carcinogens:A4 Not Classifiable as a Human Carcinogen
- Quartz (14808-60-7):Carcinogens:A2 Suspected Human Carcinogen

Canada New Brunswick

- Calcium silicate (1344-95-2):Carcinogens:A4 - Not Classifiable as a Human Carcinogen
- Aluminum oxide (1344-28-1):Carcinogens:A4 - Not Classifiable as a Human Carcinogen

Canada Nova Scotia

- Calcium silicate (1344-95-2):Carcinogens:A4 - Not Classifiable as a Human Carcinogen (synthetic nonfibrous)
- Aluminum oxide as Aluminum insoluble compounds:Carcinogens:A4 - Not Classifiable as a Human Carcinogen
- Quartz (14808-60-7):Carcinogens:A2 - Suspected Human Carcinogen

Canada Ontario

- Quartz (14808-60-7):Designated Substances:0.10 mg/m³ TWAEV

Canada Quebec

- Quartz (14808-60-7):Carcinogens:C2 carcinogen - effect suspected in humans

ACGIH

- Calcium silicate (1344-95-2):Carcinogens:A4 - Not Classifiable as a Human Carcinogen (synthetic nonfibrous)
- Aluminum oxide as Aluminum insoluble compounds:Carcinogens:A4 - Not Classifiable as a Human Carcinogen
- Quartz (14808-60-7):Carcinogens:A2 - Suspected Human Carcinogen

Exposure Limits Supplemental

OSHA

- Silica, amorphous (7631-86-9):Mineral Dusts:20 mppcf TWA; (80)/(% SiO₂) mg/m³ 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

ACGIH

- Calcium silicate (1344-95-2):TLV Basis - Critical Effects:upper respiratory tract irritation (synthetic nonfibrous)| Notice of Intended Changes (TLVs):0.5 mg/m³ TWA (particulate matter containing no asbestos and < 1% crystalline silica, respirable fraction, nonfibrous particles); 1 f/cc TWA (respirable fibers, fibrous forms); A4 - not classifiable as a human carcinogen; TLV basis: pneumoconiosis, pulmonary function
- Aluminum oxide as Aluminum insoluble compounds:TLV Basis - Critical Effects:pneumoconiosis; lower respiratory tract

Exposure Limits Supplemental
irritation; neurotoxicity

- Quartz (14808-60-7):TLV Basis - Critical Effects:lung cancer; pulmonary fibrosis

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene	TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)
NIOSH = National Institute of Occupational Safety and Health	TWAEV = Time-Weighted Average Exposure Value
OSHA = Occupational Safety and Health Administration	TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures
OEL = Occupational Exposure Limit	
STEL = Short Term Exposure Limits are based on 15-minute exposures.	

Section 9 - Physical and Chemical Properties

Physical Form:	Solid	Appearance/Description:	Cream to tan pellets, rings, saddles, trilobes, sphere, snowflake 1 to 50 cm.
Color:	Cream to tan.	Odor:	Not relevant
Taste:	Not relevant	Particulate Type:	Not relevant
Particulate Size:	Not relevant	Aerosol Type:	Not relevant
Odor Threshold:	Not relevant	Boiling Point:	Not relevant
Melting Point:	1200 C(2192 F)	Decomposition Temperature:	Not relevant
Heat of Decomposition:	Not relevant	pH:	Not relevant
Specific Gravity/Relative Density:	2 to 3 Water=1	Density:	124.8597 to 187.2896 lb(s)/ft ³
Bulk Density:	Not relevant	Water Solubility:	Not relevant
Solvent Solubility:	Not relevant	Viscosity:	Not relevant
Vapor Pressure:	Not relevant	Vapor Density:	Not relevant
Evaporation Rate:	Not relevant	VOC (Wt.):	Not relevant
VOC (Vol.):	Not relevant	Volatiles (Wt.):	Not relevant
Volatiles (Vol.):	Not relevant	Flash Point:	Not relevant
Flash Point Test Type:	Not relevant	UEL:	Not relevant
LEL:	Not relevant	Heat of Combustion (ΔHc):	Not relevant
Autoignition:	Not relevant	Self-Accelerating Decomposition Temperature (SADT):	Not relevant
Burning Time:	Not relevant	Flame Duration:	Not relevant
Flame Height:	Not	Flame Extension:	Not relevant

	relevant		
Ignition Distance:	Not relevant	Half-Life:	Not relevant
Octanol/Water Partition coefficient:	Not relevant	Coefficient of water/oil distribution:	Not relevant
Bioaccumulation Factor:	Not relevant	Bioconcentration Factor:	Not relevant
Biochemical Oxygen Demand BOD/BOD5:	Not relevant	Chemical Oxygen Demand:	Not relevant
Persistence:	Not relevant	Degradation:	Not relevant

Section 10 - Stability and Reactivity

Stability	<ul style="list-style-type: none"> Stable under normal temperatures and pressures.
Hazardous Polymerization	<ul style="list-style-type: none"> Hazardous polymerization will not occur.
Conditions to Avoid	<ul style="list-style-type: none"> Avoid creating dusts.
Incompatible Materials	<ul style="list-style-type: none"> No data available.
Hazardous Decomposition Products	<ul style="list-style-type: none"> None

Section 11 - Toxicological Information

No toxicological information is available for the material as a whole. Under normal conditions of use, no health effects are expected. Dust may produce mechanical irritation to eyes and skin. Inhalation of dust may cause respiratory irritation. Exposure to inhalable dusts, particularly prolonged or repeated exposure, may cause lung injury or disease, including silicosis.

Component Name	Concentration	CAS	Data
Aluminum oxide	5% TO 15%	1344-28-1	Acute Toxicity: ; ihl-rbt TCLo:200 mg/m3/5H/28W-l
Quartz	0% TO 5%	14808-60-7	Acute Toxicity: ; ihl-rat TCLo:80 mg/m3/26W-l Tumorigen/Carcinogen: ; ihl-rat TCLo:50 mg/m3/6H/71W-l

Key to abbreviations

LD	=	Lethal Dose
TC	=	Toxic Concentration

Section 12 - Ecological Information

Ecological Fate	<ul style="list-style-type: none"> No data available.
Persistence/Degradability	<ul style="list-style-type: none"> No data available.
Bioaccumulation Potential	<ul style="list-style-type: none"> No data available.
Mobility in Soil	<ul style="list-style-type: none"> No data available.

Section 13 - Disposal Considerations

Product	<ul style="list-style-type: none"> Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
----------------	---

Section 14 - Transportation Information

DOT - United States - Department of Transportation

Shipping Name: Not Regulated

TDG - Canada - Transport of Dangerous Goods

Shipping Name: Not Regulated

IMO/IMDG –International Maritime Transport

Shipping Name: Not Regulated

ADN - Europe Transport of Dangerous Goods by Road/Inland Waterway

Shipping Name: Not Regulated

IATA - International Air Transport Association

Shipping Name: Not Regulated

ADR - Europe Transport of Dangerous Goods by Road/Inland Waterway

Shipping Name: Not Regulated

RID - Europe Transport of Dangerous Goods by Railways

Shipping Name: Not Regulated

Section 15 - Regulatory Information

SARA Hazard Classifications ▪ None

State Right To Know

Component	CAS	MA	NJ	PA
Silica, amorphous	7631-86-9	Yes	No	Yes
Zirconium Silicate	10101-52-7	No	No	No
Aluminum oxide	1344-28-1	Yes	Yes	Yes
Calcium silicate	1344-95-2	Yes	Yes	Yes
Quartz	14808-60-7	Yes	Yes	Yes

Inventory

Component	CAS	Canada DSL	Canada NDSL	China	Japan ENCS	TSCA
Silica, amorphous	7631-86-9	Yes	No	Yes	Yes	Yes
Zirconium Silicate	10101-52-7	Yes	No	Yes	Yes	Yes
Aluminum oxide	1344-28-1	Yes	No	Yes	Yes	Yes
Calcium silicate	1344-95-2	Yes	No	Yes	Yes	Yes
Quartz	14808-60-7	Yes	No	Yes	Yes	Yes

Canada

Labor

Canada - WHMIS - Ingredient Disclosure List

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO	Not Listed

		35%	
▪ Aluminum oxide	1344-28-1	5% TO 15%	1 %
▪ Aluminum oxide as Aluminum insoluble compounds	1344-28-1	5% TO 15%	1 %
▪ Silica, amorphous	7631-86-9	45% TO 55%	1 %
▪ Quartz	14808-60-7	0% TO 5%	1 %

Environment

Canada - CEPA - Priority Substances List

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Canada British Columbia

Environment

Canada - British Columbia - Ozone Depleting Substances

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Canada Manitoba

Environment

Canada - Manitoba - Ozone Depleting Substances and Other Halocarbons - Class 1

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Canada - Manitoba - Ozone Depleting Substances and Other Halocarbons - Class 2

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed

▪ Quartz	14808-60-7	0% TO 5%	Not Listed
----------	------------	----------	------------

Canada Nova Scotia

Environment

Canada - Nova Scotia - Ozone Layer Protection Regulations

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Canada Ontario

Environment

Canada - Ontario - Airborne Contaminant Reporting - Table 2A

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Canada - Ontario - Airborne Contaminant Reporting - Table 2B

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Canada - Ontario - Ozone Depleting Substances - Solvents - Class 1

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Canada - Ontario - Ozone Depleting Substances - Solvents - Class 2

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed

▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed
Canada - Ontario - Ozone Depleting Substances - Solvents - Class 3			
▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Canada Yukon

Environment

Canada - Yukon - Ozone Depleting Substances and Other Halocarbons

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed

▪ Quartz	14808-60-7	0% TO 5%	Not Listed
----------	------------	----------	------------

Japan

Labor

Japan - ISHL Dangerous Substances

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Designated Carcinogens

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Harmful Substances Prohibited for Manufacture

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Harmful Substances Requiring Workers to Subject to Medical Exams

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Harmful Substances Subject to Obtaining Permission for Manufacturing

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Harmful Substances Whose Names Are to be Indicated on the Label

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Prevention of Lead Poisoning

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Mutagens - Existing Chemicals

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Mutagens - New Chemicals

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - ISHL Notifiable Substances

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	1 % weight
▪ Aluminum oxide as Aluminum insoluble compounds	1344-28-1	5% TO 15%	1 % weight
▪ Silica, amorphous	7631-86-9	45% TO 55%	0.1 % weight
▪ Quartz	14808-60-7	0% TO 5%	0.1 % weight

Japan - ISHL Prevention of Organic Solvent Poisoning

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed

▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Environment

Japan - Air Pollution Control Law - Emission Standards for Air Pollutants

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - Pollutant Release Transfer Register (PRTR) - Class 1 Substances

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Japan - Pollutant Release Transfer Register (PRTR) - Class 2 Substances

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Inventory - Japan - Industrial Safety and Health Law Substances (ISHL)

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

United States

Labor

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed

▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed
U.S. - OSHA - Specifically Regulated Chemicals			
▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

Environment

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed

▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs			
▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting			
▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	1.0 % de minimis concentration (fibrous forms)
▪ Aluminum oxide as Aluminum insoluble compounds	1344-28-1	5% TO 15%	1.0 % de minimis concentration (fibrous forms)
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing			
▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed
U.S. - CWA (Clean Water Act) - Hazardous Substances			
▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed
U.S. - CWA (Clean Water Act) - Priority Pollutants			
▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - CWA (Clean Water Act) - Reportable Quantities of Designated Hazardous Substances

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - CWA (Clean Water Act) - Toxic Pollutants

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - D Series Wastes - Max Conc of Contaminants for the Tox Characteristic

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - F Series Wastes - Wastes from Nonspecific Sources

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed

▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - K Series Wastes - Wastes from Specified Sources

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - P Series Wastes - Acutely Toxic Wastes

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Waste Minimization Priority Chemicals

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	carcinogen, initial date 10/1/88 (airborne particles of respirable size)

U.S. - California - Proposition 65 - Developmental Toxicity

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

United States - Massachusetts

United States - New Jersey

United States - Pennsylvania

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	
▪ Aluminum oxide as Aluminum insoluble compounds	1344-28-1	5% TO 15%	
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

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

▪ Calcium silicate	1344-95-2	0% TO 10%	Not Listed
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Not Listed
▪ Aluminum oxide as Aluminum insoluble compounds		5% TO 15%	Not Listed

▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Not Listed

United States - Rhode Island

Labor			
U.S. - Rhode Island - Hazardous Substance List			
▪ Calcium silicate	1344-95-2	0% TO 10%	Toxic
▪ Zirconium Silicate	10101-52-7	25% TO 35%	Not Listed
▪ Aluminum oxide	1344-28-1	5% TO 15%	Toxic
▪ Aluminum oxide as Aluminum insoluble compounds	1344-28-1	5% TO 15%	Toxic
▪ Silica, amorphous	7631-86-9	45% TO 55%	Not Listed
▪ Quartz	14808-60-7	0% TO 5%	Toxic (dust and fiber)

Additional Regulatory Information ▪ **WARNING:** This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

- Last Revision Date** ▪ 02/29/2016
- Preparation Date** ▪ 09/16/2011
- Disclaimer/Statement of Liability** ▪ Reasonable care has been taken in the preparation of this information, but the supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

Key to abbreviations
NDA = No Data Available