

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS No.</u>	<u>EC No.</u>	<u>% by Wt.</u>
a. Crystalline silica	14808-60-7	238-878-4	2 to 7%
b. Aluminosilicate fiber (vitreous)	142844-00-6	--	25 to 40%
c. Titanium Dioxide	13463-67-7	236-675-5	<1 to 3%
d. Aluminum Oxide	1344-28-1	215-691-6	5 to 15%
e. Aluminum Silicate	1302-76-7	215-106-4	25 to 40%
f. Magnesium Aluminum Silicate	12174-11-7	--	2 to 7%
g. Non-hazardous compounds			Balance

Section 4: FIRST AID MEASURES

Probable Routes of Exposure: Inhalation / Skin / Eyes

Skin Contact: Wash with soap and water. If pain or irritation persists, refer to physician.

Eye Contact: Flush with running water for at least 15 minutes. Refer to physician.

Ingestion: Call Poison Control Center. Never give anything by mouth to someone who is unconscious or convulsing. Induce vomiting only on the advice of a medical professional.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing difficult, give oxygen. Refer to physician.

Signs/Symptoms/Effects of Overexposure: Irritation of eyes, skin, nausea.

Section 5: FIRE FIGHTING MEASURES

Flammable properties: Product is non-flammable and stable at high temperatures.

Extinguishing Media: Media used to extinguish surrounding area fire.

Unsuitable Extinguishing Media: N/A

Special Fire Fighting Procedure: Remove containers from fire area if safe to do so. Cool containers exposed to fire with water.

Special Protective Equipment for Fire Fighters: Firefighters should wear approved self-contained breathing apparatus (SCBA) and full firefighting turnout gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental Precautions: This product is insoluble in water. May enter the environment as particulate air pollutant.

Methods for Containment: This product is a solid bulk material. Protect from damage that could pulverize the product and disperse it into the air. Clean up spilled or broken material promptly.

Methods for Cleaning: Ventilate area if spilled or broken. Shovel or sweep up material and place in a suitable container for reclamation or disposal, using a method that does not generate excessive dust.

Section 7: HANDLING AND STORAGE

Handling: Avoid breathing dust from this material. Wear safety glasses with side shields or chemical goggles to prevent eye injury. Provide adequate ventilation. In areas where the permissible exposure limit may be exceeded, wear appropriate respiratory protection. Wear PVC, Neoprene or similar polymeric gloves when handling the material. Avoid prolonged contact with the skin. Wash hands and face thoroughly before eating, drinking or smoking.

Storage: Store in dry place. Keep container closed when not in use. Observe shelf life for storage.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Guidelines:

Component	OSHA (PEL)		ACGIH (TLV)		Units
	TWA	STEL	TWA	STEL	
Non-hazardous compounds (1)	15 (T)	N.E. (2)	10 (T)	N.E.	mg/m ³
	5 (R)	N.E.	3 (R)	N.E.	mg/m ³
Crystalline silica	10/(%SiO ₂ +2) (3)	N.E.	0.025 (R) (3)	N.E.	mg/m ³
Aluminosilicate fiber (vitreous)	15 mg/m ³ (T)	N.E.	0.2	N.E.	Fibers/cc
	5 mg/m ³ (R)	N.E.			
Titanium Dioxide	N.E.	N.E.	10 (T) 3 (R)	N.E.	mg/m ³ mg/m ³
Aluminum Oxide, Aluminum Silicate	N.E.	N.E.	10 (T) 3 (R)	N.E.	mg/m ³ mg/m ³
Magnesium Aluminum Silicate	15 (T) 5 (R)	N.E. (2) N.E.	10 (T) 3 (R)	N.E. N.E.	mg/m ³ mg/m ³

- (1) No specific limits have been established for these components. As a guideline, OSHA has established limits for inert or nuisance dusts. Particulates not Otherwise Regulated (PNOR) have a total (T) dust TWA (8 hour) of 15 mg/m³ and a respirable (R) dust TWA (8 hour) of 5 mg/m³. ACGIH has also established a TLV for inert, insoluble particulates total (T) dust TWA (8 hour) of 10mg/m³ and a respirable (R) dust TWA (8 hour) of 3 mg/m³.
- (2) N.E. = Not Established
- (3) As SiO₂. If crystalline quartz is heated to more than 870 °C, it can change to the trydimite form of crystalline silica. If heated to more than 1470 °C, quartz can change to the cristobalite form of silica. The OSHA PEL for crystalline silica as trydimite or cristobalite is ½ that of the quartz form reported above.

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below the recommended exposure limits.

Personal Protective Equipment (PPE): During normal use and operation, wear chemical goggles and impermeable gloves to minimize exposure. If airborne levels are at or above the recommended exposure limit or in the event the product is spilled, wear NIOSH-approved respiratory protection. Additional PPE may be necessary, depending on user operations to avoid prolonged contact of the product with skin.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white bulk solid product
Odor: Odorless
pH: N/A
Boiling Point: N/A
Melting Point: N/A
Flashpoint: N/A
Explosive Properties: N/A
Vapor Pressure: N/A
Relative Density: S.G./Apparent Density: 1.8 to 2.0 (Water = 1.0)
Vapor Density (Air=1): N/A
Solubility: Insoluble in water
Flash Point: N/A

Flammable Limits: LEL: N/A UEL: N/A
Hazardous Polymerization: No
Corrosive: No
Stable: Yes **Unstable:** No
Incompatibility: .
Thermal Decomposition Products:

Section 10: STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.
Conditions to Avoid: Temperatures above 150 °F.
Hazardous Polymerization: Will not occur.
Incompatibilities: Strong acids, Oxidizers
Hazardous Decomposition Products: None.

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:
 LD50: Silicon Dioxide, quartz 500 mg/kg Oral Rat

Excessive Exposure May Affect Human Health as Follows:

Skin Contact: Irritation. Prolonged exposure may cause dermatitis.
Eye Contact: Mechanical Irritation
Inhalation: Silicosis and other respiratory diseases
Reproductive Toxicity: No
Carcinogen: Yes

Section 12: ECOLOGICAL INFORMATION

Environmental Fate: No information found.
Environmental Toxicity: No information found.

Section 13: DISPOSAL CONSIDERATIONS

Not a RCRA hazardous waste. Dispose of in accordance with local, state and Federal regulations.
 Empty containers must be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torch.

Section 14: TRANSPORT INFORMATION

Classification Data:

DOT Information:		Proper Shipping Name:	Not regulated
Hazard Class:	N/A	UN Number:	N/A
Reportable Quantity (lbs):	N/A	Packing Group:	N/A
Placard Requirement:	N/A		

Section 15: REGULATORY INFORMATION

Global Inventory Status:

<u>Inventory</u>	<u>Status</u>
United States (TSCA)	All components are listed
Canada (DSL)	All components are listed
Canada (IDL)	Components (a) and (d) from Section 3 are listed.
European Union (EC)	All components are listed
Japan (METI)	All components are listed or exempt from listing.
Mexico	No components are listed.
Philippines (PICCS)	All components are listed or exempt from listing.
South Korea (KECL)	All components are listed or exempt from listing.
Australia (AICS)	All components are listed or exempt from listing.
China	All components are listed or exempt from listing.

SARA TITLE III

Section 302 Extremely Hazardous Substances	None
Section 311/312 Hazard Categories	
Acute Health	Yes - Irritation
Chronic Health	Yes – Silicosis and Cancer
Fire	No
Reactive	No
Sudden Release of Pressure	No
Section 313 Toxic Chemicals	None

RCRA STATUS: If discarded in its purchased form, this product would not be hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

CANADIAN STATUS: This material is listed on the Canadian Domestic Substances List but not as a hazardous material for transporting into Canada.

EUROPEAN UNION: This material is listed in the EC, but is not identified as a hazardous material for transporting into European countries.

STATE REGULATORY INFORMATION:

(Letters in parenthesis refer to components listed in Section 3 of this MSDS.)

- California Prop 65 – Component (a), Crystalline silica (airborne particles of respirable size), and Component (b), Ceramic Fiber (airborne particles of respirable size), are classified as substances known to the State of California to cause cancer.
- Connecticut – No component subject to reporting in quantities less than 10,000 pounds.
- Florida - No component subject to reporting in quantities less than 10,000 pounds.
- Massachusetts - Component (a) is listed on the Right-to-know list.
- New Jersey – Component (a) and (d) are listed.
- New York - No components listed in 6 NYCRR Part 597 – Hazardous Substances List
- Pennsylvania - Components (a) and (d) are hazardous substances, but is not listed as a special hazardous substance or an environmental hazardous substance.
- Rhode Island – Components (a), (d), (e) and (f) are listed.

Section 16: OTHER INFORMATION

Key/legend:

ACGIH	American Council of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
CFR	Code of Federal Regulations
DSL	Domestic Substances List - Canada
EC	Existing Chemical Registered with EU
EU	European Union
IARC	International Agency for Research on Cancer
IDL	Ingredient Disclosure List - Canada
LC50	Lethal Concentration in water to 50% of aquatic test population
LD50	Lethal Dose to 50% of test population
N/A	Not applicable
NDSL	Non-Domestic Substances List -Canada
NTP	U.S. National Toxicology Program
OSHA	U.S. Occupational Safety & Health Administration
PEL	Permissible Exposure Limit
SG	Specific Gravity
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TSCA	U.S. Toxic Substances Control Act

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