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# SDS
Safety Data Sheet

Form #: STI-123 Date: revision 000 12/07/2020

## Section 1. PRODUCT IDENTIFICATION

**Product Identifiers**
Product Name: AFS 50/70, Quartz Sand
CAS number: 14808-60-7
Product Part Numbers: 09617
Synonyms: Sand, Ground Silica Sand, Crystalline Silica, Silica Flour.
Recommended use: Chromatography, Laboratory chemicals, Mineral additive.
Uses advised against: Not for sand blasting.
**Details of the Supplier of the Safety Data Sheet:**
Company: Sorbent Technologies
5955 Peachtree Corners East
Norcross, GA 30071 USA
**Emergency Telephone Number**: 1-866-767-2832

## Section 2. HAZARD IDENTIFICATION

United States**:** According OSHA 29 CFR 1910.1200 HCS
**Classification of the Substance (GHS-US) Physical:** Not Hazardous
**Classification of the Substance (GHS-US) Health:** Carcinogen 1A H350.
**GHS-US Label Elements, including Precautionary Statements:**
Hazard Pictograms (GHS-US):

Signal word (GHS-US: Danger
Hazard statements (GHS-US): H350—May cause cancer (inhalation).
Precautionary statements (GHS-US): P201—Obtain special instructions before use.
P202—Do not handle until all safety precautions have been read and understood.
P260—Do not breath dust.
P280—Wear protective gloves, protective clothing, eye protection, face protection.
P281—Use personal protective equipment as required.
P308 + P313—If exposed or concerned: Get medical advice/attention.
P405—Store locked up.
P501— Dispose of contents/container in accordance with national and local regulation.

**Other Hazards Not Otherwise Classified (HNOC):** Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Characterization**: Mixture

| Ingredient | CAS No. | % | Classification (GHS-US) |
|---|---|---|---|
| Crystalline Silica (Quartz) | 14808-60-7 | 95—99.9 | Carcinogen 1A, H350 |

## Section 4. FIRST AID MEASURES

**Description of First Aid Measures**

Skin: Remove affected clothing and wash material off skin with soap and water. Seek medical attention if irritation develops and persists.

Eyes: Do not rub eyes. Flush with copious amounts of water for 15 minutes while holding eyelids apart. Remove contact lenses, if present and easy to do. Seek medical attention if irritation develops and persists.

Ingestion: Rinse the mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content does not get into lungs. Seek medical attention if gastrointestinal symptoms develop.

Inhalation: Remove to fresh air and keep at rest in apposition comfortable for breathing. Seek medical attention if cough or respiratory symptoms develop.

**Most Important Symptoms and Effects, both acute and delayed: :** Particulates may cause abrasive eye injury. Inhalation of dust may cause respiratory tract irritation. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath. Prolonged inhalation of respirable crystalline silica above certain concentrations may cause lung diseases, including silicosis and lung cancer.

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

No additional information available.

**General Information**

Ensure that medical personnel are aware of the materials involved, and take precautions to protect themselves.

## Section 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

Suitable Extinguishing Media: Use extinguishing media for the surrounding fire.

Unsuitable Extinguishing Media: None known.

Flash Point: Not applicable

Non-flammable: OSHA Method 16CFR1500.44 (Incorporated by reference in 29CFR1920.1200).

Flammability Limits in Air: LFL and UFL Not Applicable.

Auto-ignition temperature: Not available

**Advice for Firefighters**

General Fire Hazard: None known.

Fire Fighting Instructions: Isolate large fires and allow to burn out. Extinguish fire using water fog, fine water spray, carbon dioxide or foam. Avoid stirring up dust clouds.

Fire Fighting Equipment Fire fighting personnel should wear full protective equipment, including self-contained breathing apparatus (SCBA) for all inside fires and large outdoor fires.

Hazardous Combustion Products: Under certain conditions, any airborne dust be an explosion hazard. Hazard greater as fineness increases.

## Section 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**

Ensure adequate ventilation. Avoid contact with skin and eyes. Avoid dust formation. Avoid breathing vapors, mist or dust. Resins may be slippery. Do not step on the spilled resins. Evacuate non-essential personnel. Wear suitable protective clothing and gloves.

**Environmental Precautions**

Notify authorities if large amounts of powder enter sewers or waterways.

**Methods and Material for Containment and Clean-up**

If a Spill or Leak Occurs: Clean up spills in a manner that does not disperse dust into the air. Handle in accordance with industrial hygiene and safety practices. These practices include avoiding unnecessary exposure, and removal from eyes, skin, and clothing. Prevent product from entering drains.

Disposal Method: Collect using vacuum cleaner fitted with HEPA filter and dispose in suitable contains for disposal. Spent should be disposed of in accordance with State and Federal laws.

Container Disposal: Do not reuse empty bags or drums. Dispose of used bags in facility permitted for non-hazardous wastes.

## Section 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Avoid generating dust. Do not breathe dust. Do not rely on your sight to determine if dust is in the air. Respirable crystalline silica dust may be in the air without a visible dust cloud. Use adequate exhaust ventilation and dust collection to reduce respirable crystalline silica dust levels to below the permissible exposure limit ("PEL"). Maintain and test ventilation and dust collection equipment. Use all available work practices to control dust exposures, such as water sprays. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Keep airborne dust concentrations below permissible exposure limits.
Where necessary to reduce exposures below the PEL or other applicable limit (if lower than the PEL), wear a respirator approved for silica containing dust when using, handling, storing or disposing of this product or bag. See Section 8, for further information on respirators. Do not alter the respirator. Do not wear a tight-fitting respirator with facial hair such as a beard or mustache that prevents a good seal between the respirator and face. Maintain, clean, and fit test respirators in accordance with applicable standards. Wash or vacuum clothing that has become dusty.
Participate in training, exposure monitoring, and health surveillance programs to monitor any potential adverse health effects that may be caused by breathing respirable crystalline silica. The OSHA Respirable Crystalline Silica Standards; 29CFR1910.1053, 1915.1053 and 1926.1053, the OSHA Hazard Communication Standard, 29 CFR Sections 1910.1200, 1915.1200, 1917.28, 1918.90, 1926.59 and 1928.21, and state and local worker or community "right-to-know" laws and regulations should be strictly followed.
Participate in training, exposure monitoring, and health surveillance programs to monitor any potential adverse health effects that may be caused by breathing respirable crystalline silica.
**Conditions for safe storage, including any incompatibilities:** Use dust collection to trap dust produced during loading and unloading. Keep containers closed and store bags to avoid accidental tearing, breaking, or bursting**.**
**Specific end uses:** Not for sand blasting.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters: Exposure Guidelines:**

| Component | USA OSHA PEL (mg/m3) | USA ACGIH TLV (mg/m3) | NIOSH REL |
|---|---|---|---|
| Quartz Sand (14808-60-7) | 0.5 mg/m3 TWA respirable dust | 0.025 mg/m3 TWA respirable dust | 0.5 mg/m3 TWA |

ACGIH is the American Conference of Governmental Industrial Hygienists
OSHA is the Occupational Safety and Health Administration
NIOSH is the National Institute of Occupational Safety and Health
PEL is the Permissible Exposure Limits established by OSHA.
TLV is the Threshold Limit Value a term ACGIH uses to express the maximum airborne concentration of a material to which most workers can be exposed during a normal daily and weekly work schedule without adverse effects.

If crystalline silica (quartz) is heated to more than 870°C, quartz can change to a form of crystalline silica known as tridymite; if crystalline silica (quartz) is heated to more than 1470°C, quartz can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as tridymite or cristobalite is one- half of the OSHA PEL for crystalline silica (quartz).

**Exposure Controls:**
**Engineering Controls:** Use local exhaust to control emissions near the source. Ventilation systems should be configured to prevent exceeding the recommended or regulated exposure limits (i.e. OSHA PELs).
**Eye Protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Safety glasses with side shields are recommended for any type of handling. Where eye contact or dusty conditions may likely, dust tight goggles are recommended. Have eye washing equipment available.
**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Avoid skin contact with this product. Wear appropriate dust resistant clothing. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling. Full contact material: Nitrile rubber of minimum layer thickness 0.11 mm and break through time 480 minutes.
**Body protection:** Choose protection in relation to its type, to the concentration and the amount of any dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and of the amount of any dangerous substances at the specific workplace.

**Respiratory protection:** If it is not possible to reduce airborne exposure levels to below the OSHA PEL or other applicable limit with ventilation, use the table below to assist you in selecting respirators that will reduce personal exposures to below the OSHA PEL. This table is part of the OSHA Respirator Standard 29CFR1910.134(d). Assigned protection factor (APF) means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by the Standard. For example, an APF of 10 means that the respirator should reduce the airborne concentration of a particulate by a factor of 10, so that if the workplace concentration of a particulate was 150 ug/m3, then a respirator with an APF of 10 should reduce the concentration of particulate to 15 ug/m3. In additional a cartridge change-out schedule must be developed based on the concentrations in the workplace.

If it is not possible to reduce airborne exposure levels to below the OSHA PEL or other applicable limit with ventilation, use the table below to assist you in selecting respirators that will reduce personal exposures to below the OSHA PEL. This table is part of the OSHA Respirator Standard 29CFR1910.134(d). Assigned protection factor (APF) means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by the Standard. For example, an APF of 10 means that the respirator should reduce the airborne concentration of a particulate by a factor of 10, so that if the workplace concentration of a particulate was 150 ug/m3, then a respirator with an APF of 10 should reduce the concentration of particulate to 15 ug/m3. In additional a cartridge change-out schedule must be developed based on the concentrations in the workplace.

**Assigned Protection Factors**

| Type of respirator1, 2 | Quarter mask | Half mask | Full facepiece | Helmet/ hood | Loose-fitting facepiece |
|---|---|---|---|---|---|
| 1. Air-Purifying Respirator | 5 | 10 | 50 | ..... | ..... |
| 2. Powered Air-Purifying Respirator (PAPR) | ..... | 50 | 1,000 | 25/1,000 | 25 |
| 3. Supplied-Air Respirator (SAR) or Airline Respirator | | | | | |
| •Demand mode | ..... | 10 | 50 | ..... | ..... |
| •Continuous flow mode | ..... | 50 | 1,000 | 25/1,000 | 25 |
| •Pressure-demand or other positive- pressure mode | ..... | 50 | 1,000 | ..... | ..... |
| 4. Self-Contained Breathing Apparatus (SCBA) | | | | | |
| •Demand mode | ..... | 10 | 50 | 50 | ..... |
| •Pressure-demand or other positive- pressure mode (e.g., open/closed circuit) | ..... | ..... | 10,000 | 10,000 | ..... |

Notes: 1Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration. 2The assigned protection factors in Table 1 are only effective when the employer implements a continuing, effective respirator program as required by this section (29 CFR 1910.134), including training, fit testing, maintenance, and use requirements. 3This APF category includes filtering facepieces, and half masks with elastomeric facepieces. 4The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated by performing a WPF or SWPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece respirators, and receive an APF of 25. 5These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance- specific standards in that subpart. Escape respirators for other IDLH atmospheres are specified by 29 CFR 1910.134 (d)(2)(ii).

**General Industrial Hygiene Considerations:**

Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.

**Environmental Exposure Controls:**

No special environmental precautions required. Avoid release to the environment.
Not for sand blasting.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on Basic Physical and Chemical Properties**

| | |
|---|---|
| Physical State: | Solid |
| Appearance: | White or tan sand: granular or ground to a powder. |
| Odor: | None |
| Odor Threshold: | No data available |
| pH: | 6—8 |
| Melting Point/Range: | 1710 deg. C /3110 deg. F |
| Boiling Point/Range: | 2230 deg C/4046 deg. F |
| Flash Point: | No data available |
| Evaporation Rate: | No data available |
| Flammability (solid, gas); | No data available |
| Flammability or Explosive Limits | |
| Upper: | No data available |
| Lower: | No data available |
| Vapor Pressure: | No data available |
| Vapor Density: | No data available |
| Relative Density: | 2.65 |
| Solubility (water): | Insoluble |
| Solubility (solvents): | No data available |
| Partition Coefficient; n-octanol/water: | No data available |
| Autoignition Temperature: | No data available |
| Decomposition Temperature: | No data available |
| Viscosity: | No data available |
| Bulk density: | No data available |
| Explosive properties: | No data available |

## Section 10. STABILITY AND REACTIVITY

**Reactivity**
The product is stable and non-reactive under normal conditions of use, storage and transport.
**Chemical Stability**
This product is stable under normal conditions of storage, shipment and use.
**Possibility of Hazardous Reactions**
Contact with powerful oxidizing agents, such as fluorine , chlorine trifluoride and oxygen difluoride, may cause fires.
**Conditions to Avoid**
Avoid generation of dust formation.
**Incompatible Materials**
Powerful oxidizing agents, such as fluorine , chlorine trifluoride and oxygen difluoride, and hydrofluoric acid.
**Hazardous Decomposition Products**
Silica will dissolve in hydrofluoric acid and produce a corrosive gas. silicon tetrafluoride.

## Section 11. TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects**
**Acute Toxicity:**
**Inhalation:** Inhalation of dust may cause respiratory tract irritation. Symptoms of exposure may include cough, sore throat. Nasal congestion, sneezing, wheezing and shortness of breath.
**Ingestion:** Ingestion in an unlikely route of exposure. If dust is swallowed, it may irritate the mouth and throat.
**Skin Contact:** No adverse effects are expected.
**Eye Contact:** Particulates may cause abrasive injury.

**Numerical Measure of Toxicity:** Crystalline Silica (quartz): LD50 oral rat >22,500mg/kg.

**Toxicologically Synergistic Products:** No information available.
**Delayed and Immediate Effects as well as Chronic Effects from Short and Long Term Exposure**

**A. SILICOSIS:** Silicosis can exist in several forms, chronic (or ordinary), accelerated, or acute:
Chronic or Ordinary Silicosis is the most common form of silicosis, and can occur after many years (10 to 20 or more) of prolonged repeated inhalation of relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis. Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function or disability. Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Complicated silicosis or PMF symptoms, if present, are shortness of breath and cough. Complicated silicosis or PMF may be associated with decreased lung function and may be disabling. Advanced complicated silicosis or PMF may lead to death. Advanced complicated silicosis or PMF can result in heart disease secondary to the lung disease (cor pumonale).
Accelerated Silicosis can occur with prolonged repeated inhalation of high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of initial exposure. Progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that lung lesions appear earlier and progression is more rapid.
Acute Silicosis can occur after the repeated inhalation of very high concentrations of respirable crystalline silica over a short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough, weakness and weight loss. Acute silicosis is fatal.

**B. CANCER IARC:** The International Agency for Research on Cancer ("IARC") concluded that “crystalline silica in the form of quartz or cristobalite dust is carcinogenic to humans (Group 1)”. For further information on the IARC evaluation, see IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 100C,"A Review of Human Carcinogens: Arsenic, Metals, Fibres and Dusts " (2011).
NTP classifies “Silica, Crystalline (respirable size)” as Known to be a human carcinogen.

**C. AUTOIMMUNE DISEASES:** Several studies have reported excess cases of several autoimmune disorders -- scleroderma, systemic lupus erythematosus, rheumatoid arthritis -- among silica-exposed workers.

**D. TUBERCULOSIS:** Individuals with silicosis are at increased risk to develop pulmonary tuberculosis, if exposed to tuberculosis bacteria. Individuals with chronic silicosis have a three-fold higher risk of contracting tuberculosis than similar individuals without silicosis.

**E. KIDNEY DISEASE:** Several studies have reported excess cases of kidney diseases, including end stage renal disease, among silica- exposed workers. For additional information on the subject, the following may be consulted: "Kidney Disease and Silicosis”, Nephron, Volume 85, pp. 14-19 (2000).

**F. NON-MALIGNANT RESPIRATORY DISEASES:** The reader is referred to Section 3.5 of the NIOSH Special Hazard Review cited below for information concerning the association between exposure to crystalline silica and chronic bronchitis, emphysema and small airways disease. There are studies that disclose an association between dusts found in various mining occupations and non-malignant respiratory diseases, particularly among smokers. It is unclear whether the observed associations exist only with underlying silicosis, only among smokers, or result from exposure to mineral dusts generally (independent of the presence or absence of crystalline silica, or the level of crystalline silica in the dust).

Sources of information: The NIOSH Hazard Review - Occupational Effects of Occupational Exposure to Respirable Crystalline Silica published in April 2002 summarizes and discusses the medical and epidemiological literature on the health risks and diseases associated with occupational exposures to respirable crystalline silica. The NIOSH Hazard Review is available from NIOSH - Publications Dissemination, 4676 Columbia Parkway, Cincinnati, OH 45226, or through the NIOSH web site, www.cdc.gov/niosh/topics/silica, then click on the link “NIOSH Hazard Review: Health Effects of Occupational Exposure to Respirable Crystalline Silica”.

For a more recent review of the health effects of respirable crystalline silica, the reader may consult Fishman’s Pulmonary Diseases and Disorders, Fourth Edition, Chapter 57. “Coal Workers’ Lung Diseases and Silicosis”.

The US Occupational Safety and Health Administration (OSHA) published a summary of respirable crystalline silica health effects in connection with OSHA’s Proposed Rule regarding occupational exposure to respirable crystalline silica. The summary was published in the September 12, 2013 Federal Register, which can be found at www.federalregister.gov/articles/2013/09/12/2013-20997/occupational-exposure-to-respirable-crystalline- silica.

**Carcinogenicity:** Table below indicates if each agency has listed any ingredient as a Carcinogen.

| Component | CAS-No. | IARC | NTP |
|---|---|---|---|
| Quartz (Silica) | 14808-60-7 | Group1—Carcinogenic to humans | Known to be a human carciogen |

**Mutagenic Effects**: Not classified
**Reproductive Effects**: Not classified
**Developmental Effects**: No information available.

**Teratogenicity**: No information available.

**Specific Target Organ Toxicity (STOT)-single exposure**: Not classified.
**Specific Target Organ Toxicity (STOT)-repeated exposure**: Not classified.

**Aspiration:** Not classified.

**Symptoms / Effects, Both Acute and Delayed:** Prolonged inhalation may be harmful to the respiratory tract.

**Endocrine Disruptor Information:** No information available.

**Other Adverse Effects:** The toxicological properties have not been fully investigated.

## Section 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Crystalline silica (quartz) is not known to be ecotoxic.

**Persistence/ Degradability**
Silica is not degradable.

**Bioaccumulation Potential**
Silica is not bioaccumulative.

**Mobility in Soil**
Silica is not mobile in soil.

**Other Adverse Effects**
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## Section 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**
Product: This product is not considered a hazardous waste. Vacuum or shovel material into a closed container for reuse or disposal. Storage and disposal should be in accordance with applicable local, state and federal laws and regulations.

Waste from Residues: After removal of any hazardous and/or poisonous substances on used resin or contaminated package, dispose of materials by incineration or landfill.

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Local regulations may be more stringent than state or federal requirements.

## Section 14. TRANSPORTATION INFORMATION

| | | |
|---|---|---|
| | **UN number:** | None |
| Land: | **DOT (US)**: | Not regulated |
| | **ADR/RID (EU):** | Not regulated |
| | **TDG (Canada)**: | Not regulated |
| Water: | **IMO/IMDG**: | Not regulated |
| Air: | **IACO/IATA**: | Not regulated |

**Environmental hazards:** None
**Transportation in bulk according to Annex II of MARPOL 73/78 and the IBC Code**: Not applicable
**Special Precautions:** None known

## Section 15. REGULATORY INFORMATION

**Safety, Health and Environmental Regulations/ Legislation Specific for the Substance or Mixture**
**International Inventories**

**U.S. Federal Regulations, Crystalline silica (quartz):**
TSCA Status: Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS No. 14808-60-7.

RCRA: This product is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

CERCLA: Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.

Emergency Planning and Community Right to Know Act (SARA Title III): This product contains the following chemicals subject to SARA 302 or SARA 313 reporting: None above the minimum concentrations.

Clean Air Act: Crystalline silica (quartz) mined and is not processed with or does not contain any Class I or Class II ozone depleting substances.

FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).

California Proposition 65: Crystalline silica (airborne particles of respirable size) is classified as a substance known to the State of California to be a carcinogen.

California Inhalation Reference Exposure Level (REL): California established a chronic non-cancer effect REL of 3 µg for silica (crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no non-cancer health effects are anticipated in individuals indefinitely exposed to the substance at that level.

Massachusetts Toxic Use Reduction Act: Silica, crystalline (respirable size, <10 microns) is “toxic” for purposes of the Massachusetts Toxic Use Reduction Act.

Pennsylvania Worker and Community Right to Know Act: Quartz is a hazardous substance under the Act, but it is not a special hazardous substance or an environmental hazardous substance.

Texas Commission on Environmental Quality: The Texas CEQ has established chronic and acute Reference Values and short term and long term Effects Screening Levels for crystalline silica (quartz).
States Right-to-Know

**Canadian Classification:**
Domestic Substances List: U. S. Silica Company products, as naturally occurring substances, are on the Canadian DSL.

WHMIS Classification: D2A

**Other National Inventories:**

Australian Inventory of Chemical Substances (AICS): All of the components of this product are listed on the AICS inventory or exempt from notification requirements.

China: Silica is listed on the IECSC inventory or exempt from notification requirements.

Japan Ministry of International Trade and Industry (MITI): All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law Registry Number 1-548.

Korea Existing Chemicals Inventory (KECI) (set up under the Toxic Chemical Control Law): Listed on the ECL with registry number 9212-5667.

New Zealand: Silica is listed on the HSNO inventory or exempt from notification requirements.

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed for PICCS.

Taiwan: Silica is listed on the CSNN inventory or exempt from notification requirements.

## Section 16. OTHER INFORMATION

**Hazardous Material Information System (HMIS):**
Health *For further information on health effects, see Sections 2, 8 and 11 of this MSDS.
Flammability 0
Physical Hazard 0
Protective Equipment E

**National Fire Protection Association (NFPA):**
Health 0
Flammability 0
Instability 0

*The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to these products or handling of these products. Customers/users must comply with all applicable health and safety laws, regulations, and orders*

*SDS REVISION SUMMARY:*

*This document has been updated to comply with the U.S. OSHA HazCom 2012 Standard replacing the current Legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)*