

January 01, 2008

# MATERIAL SAFETY DATA SHEET

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## Section 1. Identification

Company Name: AGSCO Corporation                      Emergency number: 201-393-0300  
Address: 621 Route 46 West                              Information number: 201-393-0300  
              Hasbrouck Heights, NJ 07604                Date prepared:

Product Name: **Silica Sand, Silica Flour, Quartz, Novaculite, Crystalline Silica, Silicon Dioxide**

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## Section 2. Composition/Identity Information

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<u>Component</u>	<u>CAS Number</u>	<u>OSHA - PEL</u>	<u>ACGIH - TLV</u>	<u>Percent</u>
Crystalline Silica	14808-60-7	<u>10mg/m<sup>3</sup></u> %SiO <sub>2</sub> + 2 respirable fraction	<u>0.05mg/m<sup>3</sup> TWA</u> respirable fraction	>90

NIOSH has recommended a PEL of 0.05 mg/m<sup>3</sup> as determined by a full shift sample up to 10 hour working day, 40 hours per week.

PEL means OSHA Permissible Exposure Limit

TLV means American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value

TWA means 8 hour Time Weighted Average

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## Section 3. Physical and Chemical Data

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**Boiling Point:** 2230<sup>0</sup>C                      **Vapor Density:** N/A                      **Specific Gravity:** 2.65  
**Melting Point:** 1710<sup>0</sup>C                      **Vapor Pressure:** N/A                      **Evaporation rate:** N/A  
**Solubility in Water:** Insoluble  
**Appearance and odor:** White to tan; granular to powder; odorless

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## Section 4. Fire and Explosion Data

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**Flash Point:** None                      **Auto ignition Temperature:** Will not burn  
**Flammable Limits:** LEL: N/A UEL: N/A  
**Extinguishing Media:** Will not burn. May be used to extinguish fires.  
**Special Fire Fighting Procedures:** None. Will not burn.  
**Unusual Fire and Explosion Hazards:** None

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## Section 5. Reactivity Data

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**Stability:** Stable                      **Conditions to Avoid:** None  
**Materials to Avoid:** Powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide  
**Hazardous Decomposition Products:** Silica will dissolve in hydrofluoric acid producing a corrosive gas - silicon tetrafluoride  
**Hazardous Polymerization:** Will not occur

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## Section 6 Health Hazard Data

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**Ingestion:** No known adverse effects for normal, incidental ingestion  
**Eye Contact:** May cause abrasion and irritation  
**Skin Contact:** No known adverse effects

**Inhalation:** Breathing crystalline silica dust may cause irritation of nose, throat, and respiratory passages. Prolonged breathing of respirable crystalline silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of respirable crystalline silica dust may have the following serious chronic health effects:

**Silicosis:** Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling and sometimes-fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.

**Cancer:** The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1 - carcinogenic to humans). Refer to IARC Monograph volume 68 (1997), "Silica, Some Silicates and Organic Fibers". The National Toxicology Program (NTP) classifies respirable crystalline silica as "known to be a human carcinogen". The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica as a suspected human carcinogen (A2).

**Scleroderma and Kidney Disease:** There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of scleroderma (an immune system disorder manifested by fibrosis of the lungs, skin, and other internal organs) and kidney disease.

For further information consult "Adverse Effects of Crystalline Silica Exposure" published by the American Thoracic Society Medical Section of the American Lung Association, American Journal of Respiratory and Critical Care Medicine, volume 155, pages 761-765, 1997.

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## Section 7. First Aid Measures

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**Inhalation:** If there is gross inhalation of crystalline silica dust causing coughing and shortness of breath, remove victim to fresh air. If breathing has stopped, perform artificial respiration. Seek medical attention.

**Ingestion:** If large amounts are swallowed, get medical attention.

**Eye Contact:** Flush eyes with large amounts of water. If irritation persists, get medical attention.

**Skin Contact:** No first aid should be needed since this material does not affect the skin. Wash exposed skin with soap and water as needed.

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## Section 8. Storage, Handling, and Use Protection Information

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**Normal Storage and Handling:** Do not breathe dust. Use adequate ventilation and dust collection. Avoid breakage of bagged material and spills of bulk material. Use good housekeeping to prevent accumulation of dust in work area. Avoid creation of respirable dust. Monitor respirable crystalline silica dust in the workplace on a frequent regular basis.

**WARN AND TRAIN YOUR EMPLOYEES (AND YOUR CUSTOMERS IN THE CASE OF RESALE) OF THE HAZARDS AND OSHA PRECAUTIONS TO BE USED.**

See OSHA Hazard Communication Standard 29 CFR 1910.1200, 1915.99, 1917.28, 1918.90, 1926.59, and 1928.21 as well as state and local worker or community "right to know" laws and regulations.

**Ventilation:** Use sufficient local mechanical exhaust as required to maintain level of respirable crystalline silica dust below the Permissible Exposure Limit.

See ACGIH "Industrial Ventilation - A Manual for Recommended Practice" (latest edition).

**Respiratory Protection:** Use appropriate NIOSH approved respiratory protection for respirable crystalline silica.

See OSHA (29CFR 1910.134), MSHA (30 CFR Parts 56 and 57), ANSI (Z88.2), and NIOSH "Respirator Decision Logic".

**Eye Protection:** Safety glasses with side shields or goggles recommended.

**Protective Gloves:** Not normally necessary.

**Other Protective Equipment/Clothing:** As appropriate for the work environment.  
**Cleanup and Spill Information:** Collect using dustless methods (HEPA vacuum or flush with water) to minimize generation of airborne respirable dust and put into closable container. Do not dry sweep.  
**Waste Disposal Method:** If uncontaminated, dispose as an inert, non-metallic mineral in accordance with federal, state, and local regulations. If contaminated, the user must assess the proper disposal for the material appropriate for the contamination.

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Section 9. Other Regulatory Information

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**U.S. Department of Transportation:** Crystalline silica is NOT a hazardous material for purposes of transportation. US DOT Table of Hazardous Materials, 49CFR 172.101.  
**Resource Conservation and Recovery Act:** Crystalline silica is NOT classified as a hazardous material under RCRA or its regulations, 40 CFR 261.  
**Toxic Substances Control Act:** Crystalline silica is ON the EPA TSCA Inventory under CAS #14808-60-7.  
**Comprehensive Environmental Response Compensation and Liability Act:** Crystalline silica is NOT classified as a hazardous substance under CERCLA regulations, 40 CFR 302.  
**Superfund Amendments and Reauthorization Act (SARA) Emergency Planning and Community Right to Know Act:** Crystalline silica is NOT an extremely hazardous substance in Section 302 and is NOT a toxic chemical subject to the requirements of Section 313.  
**Food and Drug Administration:** Silica IS included in the FDA 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 is classified as a substance known to the State of California to be a carcinogen.  
**Canadian Environmental Protection Act:** Crystalline silica, as a naturally occurring substance, is ON the Canadian Domestic Substances List (DSL).  
**Canadian WHMIS Classification:** Class D, Division 2, Subdivision A (Very Toxic Material causing other Toxic Effects).  
**European Inventory of Commercial Chemical Substances:** Listed on the EINECS Inventory or exempt from notification requirements. EINCES number for quartz is 231-545-4).  
**European Economic Community Labeling Classification:** Harmful (Xn)  
**European Economic Community Label Risk and Safety Phrases:** R40/20, R48/20, S22, S38  
**Australian Inventory of Chemical Substances:** Crystalline silica is ON the AICS inventory or exempt from notification requirements.  
**Japan MITI:** Crystalline silica is an existing chemical substance as defined in the Chemical Substance Control Law.

**National Fire Protection Association (NFPA) Hazard Rating:**

Health: 1 Fire: 0 Reactivity: 0

**Hazardous Material Information System (HMIS) Hazard Rating:**

Health: \* Flammability: 0 Reactivity: 0 Protective Equipment: E

\* For further information on health effects, see Section 6 of this MSDS.

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**Note:** The information contained in this Material Safety Data Sheet is taken from sources believed to be accurate and correct. AGSCO Corporation makes no expressed or implied warranty with respect to the accuracy of the information or the suitability of the recommendations. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by purchase, resale, use, or exposure to our product. Customers/users of the product must comply with all federal, state, and local laws and regulations.

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NAIF= No applicable information found

N/A= Not applicable

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