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## Material Safety Data Sheet

Date: December 1, 2007

### I - Product Identification #155

Trade name as labeled: Silica or Lake Sand, All Grades.  
Chemical Name and Formula: Silica, mainly in the form of quartz, SiO<sub>2</sub>

### II - Hazardous Ingredients

CAS Number: 14808-60-7      Chemical Name: Quartz      Percent >90  
ACGIH-TLV: 0.1 mg/m<sup>3</sup>      OSHA-PEL: 0.1 mg/m<sup>3</sup>

Remaining composition of material is naturally occurring, non-hazardous materials.  
NIOSH recommends a Permissible Exposure Limit (PEL) of 0.05 mg/m<sup>3</sup> respirable free silica.

### III - Physical Properties

Vapor density: Not Applicable      Specific Gravity: 2.65  
Melting Point: 1710°C      Boiling Point: 2230°C  
Solubility in Water: Insoluble      Evaporation Rate: None  
Vapor Pressure: 10 mm @ 1730°C      Appearance and Odor: White to Tan Sand, Odorless

### IV - Fire and Explosion

Flash Point: Does not flash      Auto-Ignition Temperature: None  
Flammable Limits in Air: None  
Fire extinguishing Materials: Non Combustible.      May be used to extinguish fires.  
Unusual Fire Fighting Procedures: None.      Unusual Fire and Explosion Hazard: None

### V - Health Hazard Information

**PROLONGED INHALATION OF RESPIRABLE SILICAWAY RESULT IN PERMANENT LUNG DAMAGE: SILICOSIS**

#### Symptoms of Overexposure

Inhaled: Shortness of Breath, coughing, reducing pulmonary function.  
Contact with Eyes or Skin: Eye Irritation.  
Swallowed: May cause gastrointestinal discomfort.

#### First Aid (Emergency Procedures)

Eye Contact: Wash with soap and water. If irritation persists see a physician.  
Inhaled: Remove to fresh air at once. Apply artificial respiration if breathing difficulties.  
Swallowed: Give one or two glasses of water. If discomfort persists see a physician.

Suspected Cancer Agent: Yes  
Federal OSHA: No  
NTP: YES\*  
IARC: Yes\*\*

\*NTP: Respirable Crystalline Silica has been listed in the 6th annual report on Carcinogens.  
\*\*IARC: Monographs on their evaluation of the carcinogenic Risk of Chemicals to Humans (vol. 42, 1987) concludes that there is a limited evidence for the carcinogenicity of crystalline silica to experimental animals, and there is limited evidence of carcinogenicity of crystalline silica to humans.

### VI - Reactivity Data

Stability: XX Stable      Unstable  
Incompatibility (Materials to avoid): ClF<sub>3</sub>, MnF<sub>2</sub>, OF<sub>2</sub>  
Hazardous Polymerization:      May Occur      XX Will Not Occur  
Hazardous Decomposition Products: None

### VII - Spill, Leak and Disposal Procedures

Spill response Procedures (including employee protection measures): Clean up using approved dustless methods (water or vacuum) to minimize generation of respirable silica particles.  
Waste Disposal of in facility approved for silica.

### VIII - Special Handling Information

Ventilation and Engineering Controls: Local Mechanical to reduce respirable silica to below safe levels.  
Respiratory Protection (type): Use NIOSH approved equipment.  
Positive pressure supplied-air type recommended.  
Eye Protection (type): Safety Glasses.  
Gloves (Specify Material): Not normally required.  
Work Practices, Hygienic Practices: Clean up spills promptly. Do not engage in activities that will generate respirable silica particles.  
Other Handling and Storage Requirements: Avoid generating dust. No special storage requirements. Train all exposed persons in all sections of this M.S.D.S and the proper handling of silica before they work with this product.

See OSHA hazard communication Rule CFR 1910. 1200, 1915.99, 1928.21 state, local worker, or community "right to know" laws and regulations. We recommend that smoking be prohibited in all areas where respirators must be used. Warn your employees (and your customer Users in case of resale) by posting and other means of the hazard and OSHA precautions to be used. Provide training about the OSHA precautions.

### IX - Other Information

H.M.I.S Rating  
Health Hazard Rating      1\*  
Flammability Hazard Rating      0  
Reactivity Hazard Rating      0  
Personal Protective Equipment      E\*\*

\*Chronic exposure to respirable size silica will result in silicosis.  
\*\*Comply with special OSHA respiratory protection if sandblasting.

D.O.T: Not Regulated  
SARA TITLE III: Not listed  
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