# Material Safety Data Sheet

## Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Common Name/Trade Name</th>
<th>Silicon Dioxide, 325 mesh, Crystalline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog Number(s)</td>
<td>Si108</td>
</tr>
<tr>
<td>CAS#</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>RTECS</td>
<td>VV7330000</td>
</tr>
<tr>
<td>TSCA</td>
<td>TSCA 8(b) inventory: Silicon Dioxide, 325 mesh, Crystalline</td>
</tr>
<tr>
<td>CI#</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Manufacturer**
SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**Commercial Name(s)**
Not available.

**Synonym**
Crystalline Silica; Silica, crystalline; Quartz silica; Silica, crystalline, quartz; Imsi; Crystallized silicon dioxide

**Chemical Name**
Quartz

**Chemical Family**
Not available.

**Chemical Formula**
SiO₂

**Supplier**
SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**IN CASE OF EMERGENCY**
CHEMTREC (24hr) 800-424-9300
CALL (310) 516-8000

## Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Quartz</td>
<td>14808-60-7</td>
<td>0.3</td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

**Toxicological Data on Ingredients**
Quartz
LD₅₀: Not available.
LC₅₀: Not available.
LCL (Human) - Route: Inhalation; Dose: 300 ug/m³/10Y.

## Section 3. Hazards Identification

**Potential Acute Health Effects**
Hazardous in case of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion.

**Potential Chronic Health Effects**
Hazardous in case of inhalation.
CARCINOGENIC EFFECTS: Classified 1 (Proven for human,) by IARC, 1 (Clear evidence,) by NTP, + (Proven,) by NIOSH. Classified A2 (Suspected for human,) by ACGIH.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
The substance is toxic to lungs, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage.

*Continued on Next Page*
### Section 4. First Aid Measures

<table>
<thead>
<tr>
<th><strong>Eye Contact</strong></th>
<th>Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skin Contact</strong></td>
<td>Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.</td>
</tr>
<tr>
<td><strong>Serious Skin Contact</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.</td>
</tr>
<tr>
<td><strong>Serious Inhalation</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.</td>
</tr>
<tr>
<td><strong>Serious Ingestion</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Section 5. Fire and Explosion Data

<table>
<thead>
<tr>
<th><strong>Flammability of the Product</strong></th>
<th>Non-flammable.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Auto-Ignition Temperature</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Flash Points</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Flammable Limits</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Products of Combustion</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Fire Hazards in Presence of Various Substances</strong></td>
<td>of oxidizing materials</td>
</tr>
</tbody>
</table>
| **Explosion Hazards in Presence of Various Substances** | Risks of explosion of the product in presence of mechanical impact: Not available.  
Risks of explosion of the product in presence of static discharge: Not available. |
| **Fire Fighting Media and Instructions** | Not applicable. |
| **Special Remarks on Fire Hazards** | Powerful oxiders may cause fire. |
| **Special Remarks on Explosion Hazards** | Heating a mixture of powdered magnesium and silica causes a violent explosion. |

### Section 6. Accidental Release Measures

<table>
<thead>
<tr>
<th><strong>Small Spill</strong></th>
<th>Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Large Spill</strong></td>
<td>Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.</td>
</tr>
</tbody>
</table>
Section 7. Handling and Storage

Precautions

Keep locked up. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents.

Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 23 °C (73.4 °F).

Section 8. Exposure Controls/Personal Protection

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits

TWA: 0.025 (mg/m³) from ACGIH (TLV) [United States] Inhalation Respirable.
TWA: 0.1 (mg/m³) from OSHA (PEL) [United States] Inhalation Respirable.
TWA: 0.3 (mg/m³) from OSHA (PEL) [United States] Inhalation Total.
TWA: 0.05 (mg/m³) from NIOSH [United States] Inhalation Respirable.
TWA: 0.1 (mg/m³) [Canada] Inhalation Respirable.
TWA: 0.3 [Canada] Inhalation Total.
TWA: 0.3 [United Kingdom (UK)] Inhalation Total.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance

Solid. (Crystalline solid.)

Odor

Odorless.

Taste

Tasteless.

Color

Grey.

Molecular Weight

60.09 g/mole

pH (1% soln/water)

Not applicable.

Boiling Point

Not available.

Melting Point

Not available.

Critical Temperature

Not available.

Specific Gravity

2.65 (Water = 1)

Vapor Pressure

Not applicable.

Vapor Density

Not available.

Volatility

Not available.

Odor Threshold

Not available.

Water/Oil Dist. Coeff.

Not available.

Ionicity (in Water)

Not available.

Dispersion Properties

Not available.

Solubility


Continued on Next Page
**Section 10. Stability and Reactivity Data**

<table>
<thead>
<tr>
<th>Stability</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Incompatible materials, dust generation</td>
</tr>
<tr>
<td>Incompatibility with various substances</td>
<td>Reactive with oxidizing agents. Slightly reactive to reactive with alkalis.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Special Remarks on Reactivity**

Incompatibility with powerful oxidizers: fluorine, chlorine trifluoride, manganese trioxide, oxygen difluoride, hydrogen peroxide, etc.; Incompatible with acetylene and ammonia. This chemical is attacked by Hydrogen Fluoride. Silica will dissolve in Hydrofluoric Acid and produce the corrosive gas Silicon Tetrafluoride (SiF₄). May be attacked by strong alkalis, especially with hot.

**Special Remarks on Corrosivity**

Not available.

**Polymerization**

Will not occur.

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**Section 11. Toxicological Information**

**Routes of Entry**

- Inhalation. Ingestion.

**Toxicity to Animals**

- LD50: Not available.
- LC50: Not available.

**Chronic Effects on Humans**

**CARCINOGENIC EFFECTS:** Classified 1 (Proven for human.) by IARC, 1 (Clear evidence.) by NTP, + (Proven.) by NIOSH. Classified A2 (Suspected for human.) by ACGIH. Causes damage to the following organs: lungs, upper respiratory tract.

**Other Toxic Effects on Humans**

Hazardous in case of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant), of ingestion.

**Special Remarks on Toxicity to Animals**

- Lowest Published Lethal Dose/Conc:
  - LCL [Human] - Route: Inhalation; Dose: 300 ug/m3/10Y intermittent

**Special Remarks on Chronic Effects on Humans**

May cause cancer.

**Special Remarks on other Toxic Effects on Humans**

Acute Potential Health Effects:
- Skin: No adverse health effects expected.
- Eyes: May cause eye irritation.
- Ingestion: No adverse health effects expected.
- Inhalation: Affects respiration and respiratory tract. Acute pneumoniaoisis from overwhelming exposure to silica dust has occurred. Coughing and irritation of throat are early symptoms.
- Inhalation of quartz (crystalline silica) is classified as a human carcinogen. Risk of cancer depends upon duration and level of exposure. May also affect liver.
- Chronic exposure can also cause silicosis, a form of lung scarring that can cause shortness of breath, reduced lung function. May also affect blood.
- Skin: Prolonged or repeated contact may cause drying of the skin.
- Aggravation of Pre-existing Conditions: Inhalation may increase the progression of tuberculosis; susceptibility is apparently not increased. Persons with impaired respiratory function may be more susceptible to the effects of this substance. Smoking can increase the risk of lung injury.

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**Section 12. Ecological Information**

**Ecotoxicity**

Not available.

**BOD5 and COD**

Not available.

**Products of Biodegradation**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation**

The product itself and its products of degradation are not toxic.

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Section 13. Disposal Considerations

Waste Disposal

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification
Not a DOT controlled material (United States).

Identification
Not applicable.

Special Provisions for Transport
Not applicable.

DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Quartz (listed as Silica, crystalline)
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Quartz (listed as Silica, crystalline)
Illinois toxic substances disclosure to employee act: Quartz
Pennsylvania RTK: Quartz
Minnesota: Quartz
Massachusetts RTK: Quartz
New Jersey: Quartz
TSCA 8(b) inventory: Quartz

California Proposition 65 Warnings
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Quartz (listed as Silica, crystalline)
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 238-878-4).
Canada: Listed on Canadian Domestic Substance List (DSL).
China: Listed on National Inventory.
Japan: Listed on National Inventory (ENCS).
Korea: Listed on National Inventory (KECI).
Philippines: Listed on National Inventory (PICCS).
Australia: Listed on AICS.

Other Classifications
WHMIS (Canada) CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

HMIS (U.S.A.)

National Fire Protection Association (U.S.A.)

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Protective Equipment

Gloves.

Lab coat.

Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Safety glasses.

Section 16. Other Information

MSDS Code S3310

References Not available.

Other Special Considerations Major Uses: in the manufacture of glass; in ceramics, foundry, abrasive, hydraulic facturing applications; refractory silica bricks, in which silica is converted by heat to cristobalite and tridymite are used in sprung arches of open-hearth furnaces, covers of electric furnaces, roofs of glass-tank furnaces, blast pre-heaters and coke and gas ovens.

Validated by Sonia Owen on 7/13/2009.

CALL (310) 516-8000
All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.