



## Quartz

### Material Safety Data Sheet

#### 1. Chemical Product and Company Identification

Trade Name: Cultured Quartz Crystal

Chemical Name: Silicon Dioxide

Synonyms: Cultured Quartz Crystal, Saw Wafer, Quartz Blank, Quartz Bar, Quartz Wafer

Manufacture: Sawyer Technical Materials (Bar Production)  
35400 Lakeland Blvd, Eastlake, Ohio, USA

Sawyer Technical Materials (Wafer Production)  
1601 Airport Rd, Conroe, Texas 77301, USA

Telephone: Emergency: 800.262.8200

Information: Ohio - 440.951.8770

Texas - 936.756.8886

Date Revised: October 25, 2006

#### 2. Composition / Information on Ingredients

| <u>Components</u> | <u>CAS #</u> | <u>Exposure Limits</u> |   | <u>Percent by weight</u> |
|-------------------|--------------|------------------------|---|--------------------------|
| SiO <sub>2</sub>  | 14808-60-7   | OSHA PEL               | 10mg/m <sup>3</sup><br>%SiO <sub>2</sub> +2 | 99.999%                  |
|                   |              | ACGIH - TLV            | 10mg/m <sup>3</sup><br>%SiO <sub>2</sub> +2 |                          |

Chemical Family: Mineral

NFPA Rating Health 2 Fire 0 Reactivity 0

#### 3. Physical / Chemical Characteristics

Boiling Point: 1997°C Specific Gravity (H<sub>2</sub>O = 1) 2.65

Vapor Density: N/A Melting Point: 1610 °C

Vapor Pressure: 10mm Hg @ 1732°C % Volatile by Volume: 0

Solubility in Water: Insoluble Evaporation Rate: 0

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Appearance and Odor: Colorless and odorless

### 4. Fire Data

Flash Point: None Established  
Flammable Limits: N/A  
Extinguishing Media: Any suited to the surrounding material.  
Unusual Fire or Explosion Hazards: No  
Special Firefighting Procedures: No

### 5. Reactivity Data

Stability: Stable  
Incompatibilities (materials to avoid): Strong Alkalis, Hydrofluoric Acid, Powerful Oxidizers, and Fluorine containing compounds.  
Hazardous Decomposition or byproducts: None  
Hazardous Polymerization: Will not occur  
Other conditions to avoid: The uncontrolled release of quartz dust.

### 6. Health Data

#### Routes of Entry:

Inhalation: Silicon particulate matter should not be inhaled. Prolonged exposure can cause *silicosis*. Inhalation of quartz is classified as a human carcinogen. IARC Category 1. For acute cases of inhalation remove to fresh air and consult a physician.

Eyes: May irritate. Wash eyes immediately with large amounts of water or normal saline, occasionally lifting the upper and lower eye lids, until no evidence of dust remains. DO NOT RUB THE EYES! Consult physician if irritation persists.

Ingestion: If ingested in large quantities seek medical attention.

Skin Contact: It is unlikely that emergency treatment will be required.

Status: OSHA: Yes IARC Yes, Category 1  
NTP Yes

Note: We do not consider this product, in the form that it is sold, to constitute a health hazard. Cutting, grinding, abrading, or any other form of processing which causes a release of dust, may cause some ingredients to change to a form which could affect exposed workers.

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### 7. Handling and Use

Steps to be taken in case material is spilled or released.

Collect spilled materials in appropriate container for disposal. Avoid generating dust.  
Provide cleanup personnel with protection against inhalation and eye contact of dust.

### Waste Disposal Method

Solid / Particulate - Sell as scrap and/or follow Federal, State, and Local disposal regulations.

### Handling and Storage

Single crystal quartz bars can be sharp, especially if broken or fractured. Eye protection required and wear gloves when appropriate. Always handle quartz carefully. Use good housekeeping practices to prevent the accumulations of dust and to keep airborne dust concentrations at a minimum. These bars can be heavy and difficult to handle, use caution.

### 8. Control Measures

|                                |  |
|--------------------------------|--|
| Ventilation Requirements:      | Provide adequate ventilation during mixing, cutting, or grinding operations. A fixed mechanical ventilation system is recommended. |
| Personal Protective Equipment: |  |
| Respiratory:                   | Wear a NIOSH/MSHA approved air-purifying respirator (APR) when adequate ventilation is not available.                              |
| Eyes:                          | Safety Glasses, Face Shield, or Goggles must be worn.  |
| Skin:                          | Cloth or rubber gloves may be worn to avoid cuts and abrasions.  |
| Other Control Measures:        | Quick - drench eyewash station.  |