

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: QUARTZ AR  
 CAS#: 14808-60-7  
 Synonym: Sand; Sea Sand  
 Chemical Name: Not Available  
 Chemical Formula: SiO<sub>2</sub>

## Composition and Information on Ingredients

Name	S.K.U	% by Weight
QUARTZ AR	GCS-3646	100
Feldspars (Ca, K, Na) Alluminum Silicates		
Quartz (Crystalline Silica)	14808-60-7	100

## Hazards Identification

### Potential Acute Health Effects:

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

### Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified 1 (Proven for human.) by IARC. Classified A2 (Suspected for human.) by ACGIH. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to lungs, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage.

## First Aid Measures

### Eye Contact:

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.

### Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

### Serious Skin Contact:

Not available.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:**

Not available.

**Ingestion:**

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.

**Serious Ingestion:**

Not available.

## **Fire and Explosion Data**

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances : Not applicable.

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: Keep container tightly closed.

Special Remarks on Explosion Hazards: Not available.

## **Accidental Release Measures**

**Small Spill:**

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.

**Large Spill:**

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.

## **Handling and Storage**

**Precautions:**

Keep locked up.. Do not breathe dust. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents, alkalis.

**Storage:**

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

## 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: 0.05 (mg/m<sup>3</sup>) from ACGIH (TLV) [United States] Respirable [Quartz or Crystalline Silica] TWA: 0.05 (mg/m<sup>3</sup>) from NIOSH Respirable. [Quartz or Crystalline Silica] Consult local authorities for acceptable exposure limits.

## Physical and Chemical Properties

Physical state and appearance	: Solid. (Granular solid.)
Odor	: Odorless.
Taste	: Tasteless.
Molecular Weight	: Not available.
Color	: Amber. Grey.
pH (1% soln/water)	: Not applicable.
Boiling Point	: Not available.
Melting Point	: Not available.
Critical Temperature	: Not available.
Specific Gravity	: 1.8 to 2.5+ (depending on mineral
composition) (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	: Insoluble in cold water, hot water, methanol, diethyl ether, n- octanol.

## Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of

Instability:

Incompatibles.

Incompatibility with various substances: Reactive with oxidizing agents, alkalis.

Corrosivity: Not available.

Special Remarks on Reactivity: Incompatible with oxidizing agents such as fluorine, chlorine difluoride, manganese trioxide, oxygen difluoride. When exposed to high temperature quartz can change crystalline structure to form tridymite (above 870 C) or cristobalite (above 1470 C). Soluble in hydrofluoric acid and produces a corrosive gas - silicon tetrafluoride. Quartz is attacked by strong alkalis and hydrofluoric acid.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

## 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. Classified A2 (Suspected for human.) by ACGIH. May cause damage to the following organs: lungs, upper respiratory tract.

Other Toxic Effects on Humans : Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May contain more than 1% quartz and may cause cancer (tumorigenic). Quartz has been identified by IARC as a class 1 carcinogen.

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 irritates respiratory tract. Acute pneumoconiosis from overwhelming exposure to silica dust has occurred. Coughing and irritation of throat are early symptoms. Inhalation of quartz 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. 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. Material is irritating to mucous membranes and upper respiratory tract.

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

## Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products  
of  
Biodegrad  
ation:

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.

Special Remarks on the Products of Biodegradation: Not available.

## Disposal Considerations

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

## Transformation Information

Land transport (ADR-RID)

General information : Not regulated.

Sea transport (IMDG) [English only]

General information : Not regulated.

Air transport (ICAO-IATA) [English  
only]

General information : Not regulated.

## Other Regulatory Information

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  
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 TSCA 8(b) inventory: Quartz

Other Regulations: OSHA: Hazardous by definition of Hazard Communication  
Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): R45- May cause cancer. S2- Keep out of the reach of children. S53-  
Avoid exposure - obtain special instructions before use.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

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

Health: 1

Flammability: 0

Reactivity: 0

Specific hazard:

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

**Additional Information**



References: Not available.

Other Special Considerations: Not available.

***Disclaimer:***

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