

# Safety Data Sheet



according to 29 CFR 1910.1200(g)

## Quartz Dust / Quartz Sand

Revision date: 18.01.2016

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### 1. Identification

#### Product identifier

Quartz Dust / Quartz Sand

#### Further trade names

Quartz, Silicon Dioxide, Silica Sand, MIL E-5007C, MIL E-5007D, MIL-AV-E-8593F, MIL 810E Silica Sand, MIL 810E Silica Dust, MIL Std 810G Blowing Sand, ECE R16 Section 7.6.3.2 Dust, GB 14166 Section 5.6.3.2 Dust, NSF Silica #140, Sil-co-sil 106, CMOD Erodent (Modified C-Spec), VLS erodent (Very Large Size) Dust, Honda Middle East Sand (made from crushed quartz), JIS Z8901 Class 1, 2 and 3.

#### Details of the supplier of the safety data sheet

Company name: Powder Technology Inc.  
Street: 1300 Grey Fox Road  
Place: USA-55112 Arden Hills, MN  
Telephone: +1 952 894 -8737  
e-mail: sales@powdertechologyinc.com  
Internet: <http://www.powdertechologyinc.com>

Emergency phone number: +1 952 894 -8737

#### Further Information

This safety data sheet was created by: ECI EnviroConsult Ingenieurbüro Dr. Lux e.K.

### 2. Hazard(s) identification

#### Classification of the chemical

Hazard categories:  
Carcinogenicity: Carc. 1A  
Hazard Statements:  
May cause cancer by inhalation

#### Label elements

Signal word: Danger  
Pictograms: health hazard



#### Hazard statements

May cause cancer by inhalation

#### Precautionary statements

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If exposed or concerned: Get medical advice/attention.  
Store locked up.  
Dispose of contents/container to ....

#### Hazards not otherwise classified

No information available.

### 3. Composition/information on ingredients

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### Mixtures

#### **Chemical characterization**

powdered minerals

#### **Hazardous components**

| CAS No     | Components                 | Quantity  |
|------------|----------------------------|-----------|
| 14808-60-7 | silica (fine dust)         | 98,7-99 % |
| 1344-28-1  | aluminium oxide            | <1,1 %    |
| 1309-37-1  | Iron(III) oxide (hematite) | <0,1 %    |
| 13463-67-7 | titanium dioxide           | <0,1 %    |

### 4. First-aid measures

#### Description of first aid measures

##### **After inhalation**

Provide fresh air. Medical care may be necessary. In case of irregular breathing or respiratory arrest provide artificial respiration. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### **After contact with skin**

Wash with plenty of water. In case of skin irritation, seek medical treatment.

##### **After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

##### **After ingestion**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Do NOT induce vomiting.

#### Most important symptoms and effects, both acute and delayed

May cause cancer by inhalation. A repeated, excessive dust exposure can cause pneumoconiosis. Irritating to eyes.

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### 5. Fire-fighting measures

#### Extinguishing media

##### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.  
Suitable extinguishing media: Foam. Dry extinguishing powder. Atomized water. Carbon dioxide (CO<sub>2</sub>)

##### **Unsuitable extinguishing media**

High power water jet.

#### Specific hazards arising from the chemical

Non-flammable.

#### Special protective equipment and precautions for fire-fighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### 6. Accidental release measures

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### Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Remove persons to safety.

### Environmental precautions

None.

### Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal. Ventilate affected area. Collect in closed containers for disposal.

### Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## 7. Handling and storage

### Precautions for safe handling

#### **Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust. Wear personal protection equipment. Avoid contact with skin, eyes and clothes. Avoid: Generation/formation of dust

#### **Advice on protection against fire and explosion**

No special fire protection measures are necessary.

### Conditions for safe storage, including any incompatibilities

#### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

#### **Advice on storage compatibility**

No special measures are necessary.

## 8. Exposure controls/personal protection

### Control parameters

#### **Exposure limits**

| CAS No.    | Substance                                | ppm | mg/m <sup>3</sup> | f/cc | Category  | Origin |
|------------|--|-----|-------------------|------|-----------|--------|
| 1309-37-1  | Iron oxide dust and fume (as Fe)         | -   | 5                 |      | TWA (8 h) | REL    |
| 1309-37-1  | Iron oxide fume                          | -   | 10                |      | TWA (8 h) | PEL    |
| 14808-60-7 | Silica, crystalline (as respirable dust) | -   | 0.05              |      | TWA (8 h) | REL    |
| 14808-60-7 | Silica, crystalline quartz, total dust   | -   | (Z-3)             |      | TWA (8 h) | PEL    |
| 13463-67-7 | Titanium dioxide Total dust              | -   | 15                |      | TWA (8 h) | PEL    |
| 1344-28-1  | alpha-Alumina Respirable fraction        | -   | 5                 |      | TWA (8 h) | PEL    |

### Exposure controls

#### **Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

#### **Protective and hygiene measures**

Do not breathe dust. Avoid generation of dust. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Remove contaminated, saturated clothing immediately. Draw up and observe

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skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Workspaces have to be equipped with eye shower and safety showers.

### Eye/face protection

Wear eye/face protection.

Suitable eye protection: Dust protection goggles.

### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Required properties: dust proof.

### Skin protection

Wear suitable protective clothing.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection. Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Filtering device (full mask or mouthpiece) with filter: FFP2 / N95; HEPA

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                 |                |
|-----------------|----------------|
| Physical state: | solid          |
| Color:          | yellow - white |
| Odor:           | odourless      |

### Test method

|           |                |
|-----------|----------------|
| pH-Value: | not determined |
|-----------|----------------|

### Changes in the physical state

|  |                |
|--|----------------|
| Melting point/freezing point:            | not determined |
| Initial boiling point and boiling range: | not determined |

### Flammability

|        |                |
|--------|----------------|
| Solid: | not determined |
| Gas:   | not applicable |

### Auto-ignition temperature

|        |                |
|--------|----------------|
| Solid: | not determined |
| Gas:   | not applicable |

|                            |                |
|----------------------------|----------------|
| Decomposition temperature: | not determined |
|----------------------------|----------------|

### Oxidizing properties

Not oxidizing.

|                   |                          |
|-------------------|--------------------------|
| Density:          | 2,5-27 g/cm <sup>3</sup> |
| Water solubility: | insoluble                |

### Solubility in other solvents

not determined

|                        |                |
|------------------------|----------------|
| Partition coefficient: | not determined |
|------------------------|----------------|

|                 |                |
|-----------------|----------------|
| Vapour density: | not determined |
|-----------------|----------------|

|                   |                |
|-------------------|----------------|
| Evaporation rate: | not determined |
|-------------------|----------------|

### Other information

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Solid content:

100,00 %

### 10. Stability and reactivity

#### Reactivity

No hazardous reaction when handled and stored according to provisions.

#### Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

#### Possibility of hazardous reactions

Hazardous reactions: Will not occur

No known hazardous reactions.

#### Conditions to avoid

moisture. heat.

#### Incompatible materials

Oxidizing agents. halogenated hydrocarbons. Acid.. Water.

#### Hazardous decomposition products

In case of fire may be liberated: metallic oxides.

### 11. Toxicological information

#### Information on toxicological effects

##### Route(s) of Entry

inhalation

##### Carcinogenic/mutagenic/toxic effects for reproduction

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Contains: Crystalline silica, quartz. The IARC concluded that there is "sufficient evidence in humans for the carcinogenicity of crystalline silica in the form of quartz or cristobalite from occupational sources" are and that "sufficient evidence in experimental animals for the carcinogenicity of quartz and cristobalite" exist. The Overall IARC was that "crystalline silica, which is inhaled in the form of quartz or cristobalite from occupational sources, carcinogenic to humans (Group 1)" is. The evaluation of the IARC stated that "carcinogenicity was not detected in all industrial circumstances. The carcinogenicity may depend on inherent characteristics of crystalline silica or external factors affecting its biological activity or distribution of polymorphs. "For more information on the evaluation of the IARC see" IARC Monographs on the Evaluation of Carcinogenic Risks to Humans ", Volume 68, and "Silica, Some Silicates." (1997). Contains: Crystalline silica, quartz. Repeated or prolonged inhalation of fine dusts may cause (disease of the lower lung) a severe scarring of the lungs, known as a stone dust lung disease, and alveolar. Silicosis is caused by the inhalation and accumulation of respirable crystalline silica. Silicosis may come in different forms, chronic (or ordinary), accelerated, or acute, occur. Chronic or ordinary silicosis (often referred to as simple silicosis) is the most common form of silicosis. They can occur in the air after several years of exposure to relatively low concentrations of respirable crystalline silica. It is further defined as either simple or complex silicosis. Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, characterized primarily in the upper lung zones. Often a simple silicosis is not associated with symptoms, detectable changes in lung function or disability. Simple silicosis may be progressive and evolve into a complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 cm in diameter in. With complicated silicosis or PMF may not reflect symptoms need to be connected. However, symptoms of this shortness of breath, wheezing, cough and sputum are. Complicated silicosis or PMF may be associated with decreased lung function and lead to physical disability. Advanced complicated silicosis or PMF may lead to death. Advanced complicated silicosis or PMF may as a result of lung disease heart disease (cor pulmonale) cause. Accelerated silicosis can by exposure to high concentrations of respirable crystalline silica, often over a relatively short period, may occur; the lung lesions can appear within five (5) years after the initial exposure. The disease can progress rapidly. Accelerated silicosis is similar to chronic or ordinary silicosis, except that lung lesions appear earlier and the progression runs faster.

Carcinogenicity (IARC): Silica, crystalline (inhaled in the form of quartz or cristobalite from occupational sources) (CAS 14808-60-7) is listed in group 1. Titanium dioxide (CAS 13463-67-7) is listed in group 2B.

### Additional information on tests

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

### Further information

Inhalation: May irritate the mucous membranes. Inhalation of dust may cause shortness of breath, tightness of the chest, sore throat and cough. Contains crystalline silica; by inhalation of particles can cause serious lung damage including silicosis at prolonged exposure. Upon contact with very high concentrations of respirable crystalline silica over a very short period of time, sometimes just a few months, an acute silicosis may occur. Signs of acute silicosis are increasing shortness of breath, fever, cough and weight loss. Acute silicosis is life-threatening. Skin contact: Non-irritating. May cause mechanical irritation. Eye contact: The description of possible adverse health effects is based on experience with this product. According to the EU classification criteria, the product is to be regarded as being an eye irritant. However, can cause mechanical irritation of the eyes of this product. May cause on the eyeball and cause immediate or delayed irritation, inflammation of the cornea, redness and tears scratches. Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## 12. Ecological information

### Ecotoxicity

The product is not: Ecotoxic.

### Persistence and degradability

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The product has not been tested.

### Bioaccumulative potential

The product has not been tested.

### Mobility in soil

The product has not been tested.

### Other adverse effects

No information available.

## 13. Disposal considerations

### Waste treatment methods

#### **Advice on disposal**

Dispose of waste according to applicable legislation.

#### **Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

## 14. Transport information

### **US DOT 49 CFR 172.101**

#### Proper shipping name:

Not a hazardous material with respect to these transport regulations.

### **Marine transport (IMDG)**

#### UN number:

No dangerous good in sense of this transport regulation.

#### UN proper shipping name:

No dangerous good in sense of this transport regulation.

#### Transport hazard class(es):

No dangerous good in sense of this transport regulation.

#### Packing group:

No dangerous good in sense of this transport regulation.

### **Air transport (ICAO)**

#### UN number:

No dangerous good in sense of this transport regulation.

#### UN proper shipping name:

No dangerous good in sense of this transport regulation.

#### Transport hazard class(es):

No dangerous good in sense of this transport regulation.

#### Packing group:

No dangerous good in sense of this transport regulation.

### Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### Special precautions for user

No information available.

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

## 15. Regulatory information

### U.S. Regulations

#### **National Inventory TSCA**

All substances in this product are listed in the TSCA inventory.

#### **National regulatory information**

SARA Section 311/312 Hazards:

silica (fine dust) (14808-60-7): Delayed (chronic) health hazard

titanium dioxide (13463-67-7): Delayed (chronic) health hazard

SARA Section 313 Toxic release inventory:

Aluminum oxide (fibrous forms) (1344-28-1): De minimis limit = 1.0 %, Reportable threshold =

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Standard

### State Regulations

#### **Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### **16. Other information**

#### **Hazardous Materials Information Label (HMIS)**

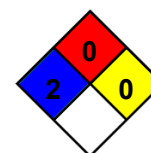
Health: \*2  
Flammability: 0  
Physical Hazard: 0

#### **NFPA Hazard Ratings**

Health: 2  
Flammability: 0  
Reactivity: 0  
Unique Hazard:

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#### **Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

#### **Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*