

# SAFETY DATA SHEET

according to Regulation (EC) 1907/2006



**Date Issued :** 07/20/2015  
**SDS No :** Silica Products  
**Date Revised :** 04/18/2017  
**Revision No :** 2

## SILICA PRODUCTS

### SECTION 1 : Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

**Product name** : SILICA PRODUCTS

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified uses** : Refractory insulation

**Uses advised against** : No additional information.

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

##### Supplier

Allied Mineral Products, Inc.  
 2700 Scioto Parkway  
 Columbus, OH 43221

**Customer Service** : (614)-876-0244

**E-Mail of person responsible for SDS :**  
 sdsinfo@alliedmin.com

Allied Mineral Products Europe B.V.  
 Energieweg 5 4691 SE  
 Tholen, Netherlands

**Customer Service** : +31-166 601200

Allied Refractory Products India Pvt. Ltd.  
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 b/h Tata Nano, Tal.: Sanand

Dist.: Ahmedabad, Gujarat 3821705, India

**Customer Service** : +91-2717-616800

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**Emergency Contact** : 黄卫友

**Telephone** : +86-22-25210378

Allied Mineral Products South Africa (Pty) Ltd.  
 Crocker Road Wadeville Ext. 4  
 Wadeville Ext. 4

Germinston, 1407 South Africa

**Telephone** : +27-11-902-6930

Fabricados no Brasil para Allied Mineral Products, Inc.  
 De Togni S/A Materiais Refratarios

**Telephone** : +55-35-2101-2222

Fabricado en Chile para Allied Mineral Products, Inc.  
 Por Refratarios lunge Ltda.

**Telephone** : (56-2) 2745-3613

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) 1272/2008 [CLP]**

**Health** : Target Organ Toxicity (Repeated exposure), Category 2

#### 2.2. Label elements

**Classification according to Regulation (EC) 1272/2008 [CLP]**

**Hazard pictogram(s)** :



Health  
hazard

**Signal Word** : WARNING

**Hazard statement(s)** : H373: May cause damage to organs ( state all organs affected, if known)

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through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

### Precautionary statement(s)

#### Prevention

: P260: Do not breathe dust/fume/gas/mist/vapours/spray.  
 P285: In case of inadequate ventilation wear respiratory protection.  
 P501: Dispose of contents/container to ...

### 2.3. Other hazards

#### Immediate concerns

: Not Applicable

#### Additional information

: Crystalline silica exists in several forms, the most common of which is quartz. If crystalline silica (quartz) is heated to more than 870°C (1600°F) it can change to a form of crystalline silica known as tridymite, and if crystalline silica (quartz) is heated to more than 1470°C (2680°F), it can change to a form of crystalline silica known as cristobalite. Crystalline silica as tridymite and cristobalite are more fibrogenic than crystalline silica as quartz.

## SECTION 3: Composition / information on ingredients

### 3.1. Substances

Not Applicable

### 3.2. Mixtures

Chemical Name	CAS	EC No.	Wt.%	Classification according to Regulation (EC) 1272/2008 [CLP]
Silica, Crystalline quartz (non-respirable)	14808-60-7	238-878-4	Up to 100	Not Classified
Silica, Crystalline quartz (respirable fraction)	14808-60-7	Not Applicable	< 10	STOT RE

For full text of H-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Following eyes

: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

#### Following skin

: Wash with soap and water. Seek medical attention if irritation develops or persists.

#### Following ingestion

: Drink plenty of water. Consult a physician.

#### Following inhalation

: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

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

#### Eyes

: Irritation, burning, redness, pain.

#### Skin

: Contact may cause skin irritation.

#### Ingestion

: Not a likely route of entry.

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**Inhalation** : May include shortness of breath, wheezing, coughing, and sputum production.

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

**Notes to physician** : Not Applicable

### SECTION 5: Fire fighting measures

#### 5.1. Extinguishing media

**Extinguishing media** : As appropriate for surrounding fire.

#### 5.2. Special hazards arising from the substance or mixture

**General hazard** : This product is noncombustible and will not ignite or contribute to the intensity of a fire.

#### 5.3. Advice for firefighters

**Fire fighting procedures** : As appropriate for surrounding fire.

**Fire fighting equipment** : As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**General procedures** : Not Applicable

**Special protective equipment** : Personal Protective Equipment should be worn as indicated in Section 8.

#### 6.2. Environmental precautions

**Water spill** : Dusts of as-manufactured refractory product have a low order of aquatic toxicity, are insoluble, and are not very mobile. Based upon this information, it is not believed to be a significant threat to the environment if accidentally released into water.

**Land spill** : Dusts of as-manufactured refractory product are not believed to be a significant threat to the environment if accidentally released on land. Dust and material generated during maintenance and tear-out operations may be contaminated with other hazardous substances (e.g., metals, alkaline materials). Evaluation of dust and material from specific processes should be performed to determine if an environmental threat exists in the case of a release.

**Air spill** : Exhaust ventilation is recommended to maintain airborne dust concentrations below regulatory exposure levels. Consult individual operating permits for allowable air emissions.

#### 6.3. Methods and material for containment and cleaning up

**Small spill** : Vacuum or sweep up material and place in a disposal container. Avoid dust generation.

**Large spill** : Clean up using methods which avoid dust generation. Compressed air should not be used to clean up spills. Wear appropriate personal protective equipment. Collect material in a compatible and appropriately labeled container. Dispose of material from processing, installation, maintenance, or tear-out operations in accordance with applicable regulations.

#### 6.4. Reference to other sections

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**Reference to other sections** : Not Applicable

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**General procedures** : Keep dry and avoid exposure to moisture prior to use.

**Handling** : Use proper procedures for installation and operation. Contact manufacturer for proper procedures. Practice good housekeeping to minimize dust generation. Respirators should be worn during installation and removal of product if dust could be generated. Consult Section 8 for respirator selection information.

**Storage** : Store in a dry area.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage temperature** : Not Applicable

#### 7.3. Specific end use(s)

**Specific end use(s)** : Refractory Insulation

### SECTION 8: Exposure controls / personal protection

#### 8.1. Control parameters

**Control parameters** : Not Applicable

#### 8.2. Exposure controls

**Engineering controls** : Local exhaust ventilation may be necessary to control any air contaminants to within their exposure limits during the use of this product.

**Eye/face protection** : Wear safety glasses with side shields (or goggles) and a face shield.

**Skin protection** : Use rubber gloves. Wash thoroughly after handling.

**Respiratory protection** : If it is not possible to reduce airborne exposure levels to below the exposure limits with ventilation, use the table below to assist you in selecting respirators that will reduce personal exposures to below the exposure limits.  
The assigned protection factor (APF) is the minimum anticipated level of protection provided by each type of respirator worn in accordance with an adequate respiratory protection program. For example, an APF of 10 means that the respirator should reduce the airborne concentration of a particulate by a factor of 10, so that if the workplace concentration of a particulate was 150 ug/m<sup>3</sup>, then a respirator with an APF of 10 should reduce the concentration of particulate to 15 ug/m<sup>3</sup>.

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Assigned Protection Factor	Type of Respirator
10	Any air-purifying elastomeric half-mask respirator equipped with appropriate type of particulate filter. Appropriate filtering facepiece respirator. Any air-purifying full facepiece respirator equipped with appropriate type of particulate filter. Any negative pressure (demand) supplied-air respirator equipped with a half-mask.
25	Any powered air-purifying respirator equipped with a hood or helmet and a high efficiency (HEPA) filter. Any continuous flow supplied-air respirator equipped with a hood or helmet.
50	Any air-purifying full facepiece respirator equipped with N-100, R-100, or P-100 filter(s). Any powered air-purifying respirator equipped with a tight-fitting facepiece (half or full facepiece) and a high-efficiency filter. Any negative pressure (demand) supplied-air respirator equipped with a full facepiece. Any continuous flow supplied-air respirator equipped with a tight-fitting facepiece (half or full facepiece). Any negative pressure (demand) self-contained respirator equipped with a full facepiece.
1000	Any pressure-demand supplied-air respirator equipped with a half-mask.

- Protective clothing** : Wear clothing which minimizes skin contact or exposure.
- Work hygienic practices** : Use good personal hygiene when handling this product. Wash hands after use, before smoking, or before using the toilet.
- Other precautions** : Recommend chest X-rays and yearly vital capacity tests for employees regularly exposed to silica for early detection of silicosis. Comply with all guidelines for crystalline silica exposure.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- Physical state** : Granular solid
- Appearance** : Granular to fine material.
- Odor** : No Odor
- pH** : Not Applicable
- Melting temperature** : Reference product literature.
- Freezing temperature** : Not Applicable
- Boiling temperature** : Not Applicable

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Flash point	: Not Applicable
Evaporation rate	: Not Applicable
Flammable limits	: Not Applicable
Vapor pressure	: Not Applicable
Vapor density	: Not Applicable
Specific gravity	: 2 to 3.000 g/cc
Solubility in water	: < 3%

### 9.2. Other information

Percent volatile	: Not Applicable
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

### 10.2. Chemical stability

Chemical stability	: Stable.
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### 10.3. Possibility of hazardous reactions

Hazardous decomposition	: Hazardous polymerization will not occur.
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### 10.4. Conditions to avoid

Conditions to avoid	: Not Applicable
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### 10.5. Incompatible materials

Incompatible materials	: Strong acids, bases, oxidizing agents.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	: Not Applicable
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute

Notes	: Acute silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period.
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#### STOT-single exposure

: **SILICOSIS**- caused by the inhalation and retention of respirable crystalline silica dust. Silicosis can exist in several forms, chronic (or ordinary), and accelerated (or acute). Chronic or Ordinary Silicosis is the most common form of silicosis, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis. Simple Silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function, or disability. Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated Silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Although there may be no symptoms associated with complicated silicosis or PMF, the

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symptoms, if present, are shortness of breath, wheezing, cough, and sputum production.

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Toxicity** : None Known

#### 12.2. Persistence and degradability

**Persistence and degradability** : Not Applicable

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** : Not Applicable

#### 12.4. Mobility in soil

**Mobility in soil** : Not Applicable

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** : Not Applicable

#### 12.6. Other adverse effects

**General comments** : Dusts of as-manufactured refractory product have a low order of aquatic toxicity, are insoluble, and are not very mobile. Based upon this information, it is not believed to be a significant threat to the environment if accidentally released on land or into water. However, dust and material generated during maintenance and tear-out operations may be contaminated with other hazardous substances (e.g., metals, respirable crystalline silica, alkaline materials). Evaluation of dust and material from specific processes should be performed to determine if an environmental threat exists in the case of release.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**Product disposal** : The as-manufactured refractory product or refractory dust is not considered a hazardous waste. Dust and material generated during use, maintenance and tear-out operations may be contaminated with other hazardous substances (e.g., metals, alkaline materials) from a particular application. Additionally, the spent refractory could contain reaction products not originally present in the supplied refractory material. Contaminants or reaction products have the potential to cause the refractory waste to exhibit hazardous waste characteristics. It is the responsibility of the user to consult applicable regulations prior to disposal of any industrial product to ensure waste disposal compliance. Waste analysis and characterization may be necessary to determine proper waste disposal. Waste Management: Dusts could contain respiratory hazards. To prevent waste materials becoming airborne during waste generation, storage, transportation, and disposal, proper dust control measures are recommended.

### SECTION 14: Transport information

#### 14.1. UN number

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**UN number** : N/A

### 14.2. UN proper shipping name

**UN proper shipping name** : Not Regulated for Transport

### 14.3. Transport hazard class(es)

**Primary hazard class/division** : Not Applicable

### 14.4. Packing group

**Packing group** : N/A

### 14.5. Environmental hazards

**Marine pollutant #1** : Not Applicable

### 14.6. Special precautions for user

**ADR - road** : Not Applicable

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

**Transport in bulk** : Not Applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**RoHS** : Not Applicable

### 15.2. Chemical safety assessment

**Chemical safety assessment** : Not Applicable

## SECTION 16: Other information

**Relevant H-statements (number and full text)** : STOT RE, : Target Organ Toxicity (Repeated exposure),

**Revision summary** : This MSDS replaces the 04/18/2017 MSDS.

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