

## Material Safety Data Sheet

Issued: 2007-06-08

Replaces earlier MSDS issued: 2003-02-17

### ALUSILICA

#### 1. Identification of the substance and the company



**Product name** ALUSILICA  
**Chemical name** Silicon dioxide  
**Synonyms** Silica, Diatomaceous silica, Kiselguhr  
**Field of application** Raw material within the chemical industry  
**Chemical formula** SiO<sub>2</sub>  
**Producer** ALUFLUOR AB  
**Address** P OBox 902  
**Postal address** 251 09 Helsingborg  
**Telephone** +46 (0)42 - 17 10 20  
**Telefax** +46 (0)42 - 13 52 85  
**E-mail** aluf fluor@aluf fluor.com

**Emergencies within Sweden** 020 - 99 60 00 (Kemiakuten)  
**Emergencies outside Sweden** +46 - (0)8 - 33 12 31 (ERC Emergency Response Centre for the Swedish Chemical Industry)

#### 2. Information on ingredients



Nr	Name of compound	CAS-number	EINECS-number	Content (weight-%)	Marking, R- och S-phrases
1	Silicon dioxide	7631-86-9	231-545-4	85*	No R- or S-phrases
2	Aluminium Fluoride	7884-18-1	232-051-1	5-7*	No R- or S-phrases

\*The contents refer to dry product

#### 3. Hazardous properties



The product is not classified as hazardous, but as all dusts it may cause irritation of breathing tracts and eyes.

#### 4. First aid-measures



##### Inhalation

Remove person to fresh air.

##### Skin contact

Rinse with plenty of water. Wash exposed area thoroughly with soap and water.

##### Eye contact

Remove contact lenses, if any and rinse eyes immediately with plenty of water, keeping the eyelids well open. Seek medical attention.

##### Ingestion

Dilute immediately by drinking large amounts of water or milk. Seek medical attention.

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### 5. Fire-fighting measures

#### **Fire extinguishing media**

The product is not flammable. The extinguishing media can be chosen depending on the surrounding fire.

#### **Fire and explosion hazards**

The content of aluminium fluoride can develop toxic fluoride containing gases when heated during fire.

#### **Special protective equipment during fire**

Respiratory protection equipment should be used.

### 6. Accidental release measures

#### **Personal precautions**

Avoid dusting. Wear personal protective equipment for dust handling.

#### **Environment precautions**

Avoid outlet to waste through embankment. Collect spillage into suitable, sealed containers.

#### **Methods for cleaning up**

Clean up using dry procedures and collect spills in a sealed container.

### 7. Handling and storage

#### **Handling**

Avoid dusting.

#### **Storage**

Store in a dry and if possible sealed area.

### 8. Exposure controls/personal protection

#### **Preventive measures**

Provide sufficient ventilation. Emergency showers and eye bottles must be provided.  
Avoid dusty handling.

#### **Respiratory protection**

Respiratory protection with particle filter P3 to be used under dusty conditions.

#### **Eye protection**

Tight eye protection should be used.

#### **Hand protection**

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#### **Protective clothes**

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### 9. Physical and chemical properties

The product is amorphous and difficult to dissolve in water.

<b>Appearance</b>	Powder
<b>Colour</b>	White
<b>Odour</b>	Odourless
<b>Bulk density [g/cm<sup>3</sup>]</b>	0,3-0,5
<b>Solubility in water</b>	1,1 % by weight
<b>pH (concentrate)</b>	ca 2,8-3,0

### 10. Stability and reactivity

#### Conditions to avoid

No extra ordinary measures are required. The product is stable under normal conditions.

#### Materials to avoid

The product may develop toxic silicon tetrafluoride gas in contact with hydrofluoric acid .  
Silicon dioxide reacts strongly with ClF<sub>3</sub>, MnF<sub>3</sub> and OF<sub>2</sub>.

### 11. Toxicological information

**LD<sub>50</sub> (oral)**          rat          3160 mg/kg

#### General hazards

The product may irritate the breathing organs, skin and eyes.

#### Inhalation

Inhalation of silicon dioxide dust may physically irritate the respiratorial tract.  
The level limit value for dust , respirable dust (1974) = 5 mg/m<sup>3</sup>.

#### Skin contact

The product may cause skin irritation during long period of skin contact.

#### Eye contact

Dust irritates the eyes

#### Ingestion

Ingestion may cause irritation in stomach and indisposition.

### 12. Ecological information

#### Environmental spreading

The product is difficult to dissolve in water.

#### Ecotoxicity

Silicon dioxide has no exotoxicological effects, but occurs naturally as the mineral known as quartz.

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13. Disposal considerations

**Disposal of product residues**

Residues and waste must be disposed according to the local/national legislation.

14. Transport information

The product is not classified as dangerous goods and therefore does not need to comply with the legislation for dangerous goods.

15. Regulatory information

**Classification**

No classification is applicable for this product.

**Compounds**

Amorphous silicon dioxide (85 % by weight in dry product)

Aluminium fluoride (5-7 % by weight in dry product)

Water (25-30 % by weight as free moisture)

16. Other information

This Material Safety Data Sheet (MSDS) has been revised 2007-02-12.  
Revisions are marked with a cross in the box at each headline.

This MSDS replaces MSDS dated 2003-02-17.

**R-phrases**

No R-phrases applicable

**S-phrases**

No S-phrases applicable

**Other toxicological information**

Experimental investigations carried out by "Yrkesmedicinska sektionen av Arbetarskyddsstyrelsens arbetsmedicinska avdelningen" shows that exposure of amorphous silicon dioxide (see headline 9) that originates from  $AlF_3$ -production does not lead to silicosis.

A study of the reaction on quartz particles has been carried out for comparison. Strongly developing silicosis has been indicated during the observation period of these experiments.