

Safety Data Sheet (2001/58/EC and ISO 11014 format)
SILICA SAND
SDS Ref: MS 01 0001, page 1 of 6
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1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

1.1. Identification of the substance or preparation

SILICA SAND

1.2. Use of the substance / preparation

Main applications of silica sand - non-exhaustive list:
glass, silicate chemistry, abrasives, foundry sand, filler for textured coatings,
glues and mortars, filtration, sports and leisure, specialist construction...

1.3. Company / undertaking identification

WBB MINERALS Ltd
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Cheshire
CW11 4TF
Tel: +44 (0)1270 752752
Fax: +44 (0)1270 752753
Web: www.wbbminerals.com

1.4. Emergency telephone

+44 (0)1553 844444

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical	:	SiO ₂ (ca. 99 %)
Mineralogical	:	alpha quartz
E.I.N.E.C.S.-N°	:	238-878-4
C.A.S.-N°	:	14808-60-7
EU-classification	:	no classification
IUPAC Name	:	silicon dioxide

3. HAZARD IDENTIFICATION

The grain size distribution of silica sand means that it is not hazardous. However, any respirable crystalline silica dust generated by processing and handling of silica sand may cause health effects.

Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled.



Working together for mineral solutions



4. FIRST AID MEASURES

No actions are to be avoided, nor are there any special instructions for rescuers.

Eye contact

Wash with copious quantities of water

Ingestion

Non-toxic

Inhalation

No special first aid measures. Remove to fresh air and consult a physician.

Skin contact

No special first aid measures necessary.

5. FIRE-FIGHTING MEASURES

Does not burn. No hazardous releases in case of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid airborne dust generation. In case of exposure to airborne dust concentrations exceeding regulatory limits, wear a personal respirator in compliance with national legislation.

Environmental precautions

No special requirements.

Methods for cleaning up

Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation.

7. HANDLING AND STORAGE

7.1. **Handling**

Avoid airborne dust generation.

Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment.

Please contact your supplier if you require advice on safe handling techniques.

7.2. **Storage**

Technical measures / Precautions

Ensure abatement of dust produced during the loading of silos.

Keep containers closed and store/handle bagged products so as to prevent accidental bursting.

7.3. **Specific use(s)**

When mixing with other substances the afore-mentioned safe handling advice shall apply.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. **Exposure limit values**

Respect workplace regulatory provisions for all types of airborne dust (inhalable dust, respirable dust and respirable crystalline silica dust).

The workplace MEL (Maximum Exposure Limit) for respirable crystalline silica dust is 0.3 mg/m³ in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average). However, the Health and Safety Executive believes it should now be reasonably practicable for all industry sectors to control respirable crystalline silica to 0.1 mg/m³ (8 hour TWA). Refer to section 16 for more information.

8.2. Exposure controls

8.2.1. Occupational exposure controls

Provide appropriate local exhaust ventilation in places where dust is generated. Control of occupational exposure may also be achieved by enclosing plant and equipment, by isolating personnel from dusty areas and by ensuring good standards of ventilation in the workplace.

8.2.1.1. Respiratory protection

In case of exposure to airborne dust concentrations exceeding regulatory limits, wear a personal respirator that complies with the requirements of national legislation.

8.2.1.2. Eye protection

Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.

8.2.2. Environmental exposure controls

No special requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance

solid, granular, in various colours ranging from white to brown

Odour

odourless

9.2. Important health, safety and environmental information

Density	:	2.65 g/cm ³
SiO ₂ %	:	ca. 99 % (cfr. technical data sheet)
Grain shape	:	sub-angular
Particle size range	:	cfr. technical data sheet
Solubility in water	:	negligible
Solubility in hydrofluoric acid	:	yes

9.3. Other information

Melting point	:	1610°C
Molecular weight	:	60.1

10. STABILITY AND REACTIVITY

Chemically stable, no particular incompatibility

11. TOXICOLOGICAL INFORMATION

Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (*IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.*)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003).

There is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits.

12. **ECOTOXICOLOGICAL INFORMATION**

No specific adverse effects known.

13. **DISPOSAL CONSIDERATIONS**

Waste from residues / unused products

Can be landfilled in compliance with local regulations. The material should be buried to prevent dust being picked up by the wind. Where possible, recycling is preferable to disposal. The substance has not been included in the EU Waste Catalogue.

Packaging

No specific requirements.

14. **TRANSPORT INFORMATION**

No special precautions are required under regulations relating to the transportation of dangerous goods.

15. **REGULATORY INFORMATION**

The substance has not been classified at EU level, under regulations relating to dangerous substances and preparations.

16. **OTHER INFORMATION**

Third party materials

Insofar as materials not manufactured or supplied by WBB MINERALS Ltd are used in conjunction with, or instead of WBB MINERALS Ltd materials, it is the responsibility of the customer himself to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of WBB MINERALS Ltd Silica Sand in conjunction with materials from another supplier.

Liability

Such information is to the best of WBB MINERALS Ltd knowledge and belief accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

Sand blasting

According to the Control of Substances Hazardous to Health Regulations 2002, sand and other substances containing free crystalline silica cannot be used as an abrasive for blasting articles in any blasting apparatus.

HSE Chemical Hazard Alert Notice 35

The HSE issued a Chemical Hazard Alert Notice for Respirable Crystalline Silica on 7 May 2003. The notice states:

"HSE believes that in most cases it should be reasonably practicable to control exposure to 0.1 mg/m³ (8 hour TWA) or less by engineering or process control. Employers should aim to ensure that workers are not exposed to RCS dust concentrations above this level.