

HEALTH & SAFETY PRODUCT DATA SHEET
SILICA SAND

Issue Date: September 2020

1. Identification of Substances & Company

SILICA SAND

Product Identification

High grade silica sand that has been processed by washing and cleaning of the grains, sizing to remove coarse and very fine fractions, and physical and chemical processes to remove iron, chromium and other deleterious minerals. After processing, the sand may be dried and some applications require it to be ground in ball mills to produce very fine material.

Uses of the substance

Main applications of silica sand in a variety of construction and non-construction applications (non-exhaustive list):

Glass and ceramic production, silicate chemistry, abrasives, foundry sand, filler for textured coatings, glues and mortars, water filtration and drainage media, sports and leisure, specialist building applications.

Company:

Marchington Stone Limited
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SK6 8DX

Telephone: 01663 765000

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Hours of operation: 07:30 – 18:00 Weekdays, 08:00 – 10:00 Saturday

2. Composition/Information on Ingredients

Silica sands are typically composed of a minimum of 97% quartz and due to their durability and resistance to heat and chemical attack, they are a valuable raw ingredient for a range of industrial products. However, respirable crystalline silica (RCS) or free silica has been associated with the lung disease silicosis.

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Crystalline Silica has the following hazard information:

Hazardous Ingredients				
Substance Name	EC No	%	CAS No	CLP Classification
Respirable Crystalline Silica (Quartz)	238-878-4	Variable dependent on source	14808-60-7	STOT RE 2; H373i

3. Hazards Identification

Classification of the substance

Not classified as hazardous according to Regulation (EC) No. 1272/2008

This product gives the potential for generation of respirable dust during handling and use. Dust may contain respirable crystalline silica (RCS). Prolonged inhalation of respirable dust can constitute a long term health hazard such as lung fibrosis. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Repeated inhalation of excessive amounts of respirable silica may cause silicosis.

Labelling

The product does not need to be labelled in accordance with EC directives or respective national laws.

4. First Aid Measures

Inhalation

Immediately remove to fresh air and allow the person to rest. If breathing is stopped or irregular, apply artificial respiration and seek medical attention.

Skin Contact

Remove and contaminated clothing. Wash with soap and rinse with plenty of water. If irritation persists, obtain prompt medical attention.

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Eye Contact

Do not rub eyes as the material is abrasive and may scratch the surface of the eye. Immediately and thoroughly irrigate with water. If irritation persists, seek medical attention.

Ingestion

Ingestion of significant quantities of sand that could cause harm is very unlikely. If the material enters the mouth, do not induce vomiting. Give plenty of water to drink. Seek medical attention if feeling unwell.

5. Fire Fighting Measures

Suitable Extinguishing Media

Material is not flammable or combustible. Use media suitable for any other materials present that may be involved in the fire.

Unsuitable Extinguishing Media

There is no unsuitable fire extinguishing media.

Special Exposure Hazards in Fire

None

Special Protective Equipment for Fire Fighters

None

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Avoid breathing dusts and excessive physical contamination.

Environmental Precautions

Entry into watercourses should be avoided so far as is possible.

Methods and Materials for Containment and Cleaning Up

Spray with water to prevent airborne dust and avoid dry sweeping which creates dust. Cover or enclose so as to avoid the generation of dust.

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7. Handling and Storage

Precautions for Safe Handling

The product should be handled with care to minimise the creation of airborne dust. Provide appropriate exhaust ventilation where airborne dust is generated. In case of insufficient

ventilation, wear suitable respiratory protective equipment. Wear gloves to prevent mechanical irritation. Consider manual handling techniques when handling bagged product

Safe Storage

Materials should be stored to minimise the generation of airborne dust from wind whipping and material movement. Very fine dry product should be stored in enclosed silos. Bulk aggregate containing fine material should not be stored in the open unless conditioned with water to avoid dust generation. Keep containers closed and store/handle bagged products so as to prevent accidental bursting.

8. Exposure Controls/Personal Protection

Control Parameters

Exposure Control Limits/Source				
Total Inhalable Dust	W.E.L	10mg/m ³	8 hrs	T.W.A.
Respirable Dust	W.E.L	4mg/m ³	8 hrs	T.W.A.
Respirable Quartz – (Crystalline Silica SiO ₂)	W.E.L	0.1mg/m ³	8 hrs	T.W.A.

W.E.L = Workplace Exposure Limit

T.W.A = Time Weighted Average

It is recommended that occupational monitoring be completed to determine exposure.

Exposure Controls

Use in well ventilated areas. Use mechanical ventilation in poorly ventilated areas.

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Respiratory Protection

Suitable dust masks should be worn in enclosed spaces where adequate ventilation is not provided. The Chemical Agents Directive shows a requirement for respirators as a means of control should use a particulate filter type P3 or equivalent.

Hand Protection

Handle with gloves. Recommended use of impervious heavy duty gloves. Gloves should be removed and hands thoroughly washed before handling or eating any food or drink.

Eye / Face Protection

Eye protection in the form of safety glasses and/or goggles is required.

Skin Protection

Overalls / Impervious clothing, selected according to the workplace conditions.

9. Physical and Chemical Properties

Property	
Appearance	Fine free flowing sand
Odour	None
pH	Various
Boiling Point/Range	Not determined
Melting Point/Range	Not determined
Flash Point	Not applicable
Flammability	Not applicable
Auto Flammability	Not applicable
Explosive Properties	Not applicable
Oxidising Properties	Not determined
Vapour Pressure	Not applicable
Relative Density	Above 2.65
Water Solubility	Dependent on rock type
Fat Solubility	Not determined

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10. Stability and Reactivity

Reactivity and Chemical Stability

Stable at normal temperatures and under recommended storage conditions.

Conditions to avoid

None

Incompatible Materials

Strong acids (Limestone based aggregates)

Hazardous Decomposition Products

None

11. Toxicological Information

Acute Toxicity

None

Eye Damage

Long term contact with eyes can cause eye irritation and damage.

Skin Corrosion / Irritation

Long term contact with skin may cause mechanical skin irritation and possible dermatitis.

Respiratory Sensitisation

Chronic exposure by inhalation may cause cough, breathlessness and lung fibrosis.

Specific target organ toxicity – repeated exposure

Prolonged exposure of Respirable Crystalline Silica fraction by inhalation may lead to silicosis of the lungs.

Carcinogenicity

IARC classified respirable crystalline silica as a Group 1 carcinogen, therefore long term exposure may cause cancer.

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Ingestion

Not likely to cause long term problems.

12. Ecological Information

Environmental Assessment

When used and disposed of as intended, no adverse environmental effects are foreseen. Sand is a naturally occurring, inert material and does not pose a significant ecological hazard.

Mobility

Sand is a non-volatile, inert material that will sink in water and form a layer on the surface of the ground. Dust may become airborne, leading to deposition on vegetation and subsequent damage.

Persistence and Degradability

Sand is resistant to degradation and will persist in the environment.

Ecotoxicity

Not expected to be toxic to aquatic organisms.

Bioaccumulative Potential

Not applicable.

Results if PBT and vPvB assessment

Will not meet PBT or vPvB criteria.

13. Disposable Consideration

Safe Handling of Residues/Waste Product

Sand is an inert waste and can be disposed of as a normal industrial waste in accordance with waste regulation.

It is recommended that it be disposed of via recycling or reuse.

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Contaminated Packaging

Dispose of as industrial waste.

14. Transport Information

Special Carriage Requirements

None – this product is NOT classified as dangerous for transport.

Dry bulk silica sand should be transported via tanker to avoid the generation of dust.

Open bulk vehicles to be sheeted to avoid dust nuisance

15. Regulatory Information

Classification

This product is NOT classified as dangerous. However, consideration of the following Hazard and Precautionary Statement is recommended:

Text of H-code(s) and R-phrase(s) mentioned in Section 3:

H373i May cause damage to organs through prolonged or repeated exposure by inhalation.

16. Other Information

Training and Advice

Wear and use appropriate PPE

Recommended restrictions on use

Use in accordance with manufacturer's technical instructions.

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.

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Further Information

Marchington Stone Limited
Telephone 01663 765000

Key Data Used to Compile Data Sheet
Health & Safety at Work etc. Act 1974
Control of Substances Hazardous to Health Regulations 2002 (as amended)
Classification, Labelling and Packaging of Substances and Mixtures Regulations 2008 (as amended)
EH40/2005 Workplace Exposure Limits (as amended)
HSE Crystalline Silica EH59

Legal Notice

The information in this Safety Data Sheet was believed to be correct at the time of issue. However, no warranty is made or implied as to the accuracy or completeness of this information.

If you have purchased this product for supply to a third party for use at work, it is your duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected, of any hazards described in this sheet and any of the precautions which should be taken.

This Safety Data Sheet does not constitute the user's own assessment of workplace risk, and it is the user's sole responsibility to take all necessary precautions when using this product.

Further copies of this Safety Data Sheet may be obtained from Marchington Stone Limited.

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