

SILICA SAND

Conforms to Regulation (EC) No. 1907/2006
(REACH), Annex II and SI 2019:758 (UK REACH)

Version 4 Revision Date 14.6.2021

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

1.1 Product identifiers

Product name: Silica Sand

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

Identified uses: High grade silica sand for a wide variety of industrial uses.

1.3 Details of the supplier of the safety data sheet

Aggregate Industries UK Ltd
Bardon Hall
Copt Oak Road
Markfield
Leicestershire
LE67 9PJ
United Kingdom
Telephone: 01530 510006 (General Technical Enquiries)

1.4 Emergency phone number:

UK National Poisons Information Service 0344 892 0111
(Health professionals only)
Ireland National Poisons Information Centre (01) 809 2566

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

The product gives potential for generation of respirable dust during handling and use. Dust may contain respirable crystalline silica. Prolonged inhalation of respirable dust may cause lung fibrosis. Principal symptoms of lung fibrosis are cough and breathlessness. 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.

2.2 Label elements

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

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Fine washed 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. Silica may contain low levels of respirable crystalline silica.

| Component | Classification | Concentration |
|--|-----------------|---------------|
| Crystalline Silica (respirable fraction) | | |
| CAS-No. 14808-60-7 | STOT-RE 1,H372i | <5% |
| EC-No. 238-878-4 | | |
| Registration No. [-] | | |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled: In case of excessive inhalation of dust or fine particles, remove to fresh air and allow person to rest. If recovery is not rapid obtain prompt medical attention.

In case of skin contact: In case of gross contamination with dusts or fine particles remove contaminated clothing. Wash with soap/cleanser and rinse with plenty of water. If irritation persists, obtain prompt medical attention.

In case of eye contact: If dusts or fine particles cause mechanical eye irritation irrigate with water. Take care not to wash debris from one eye to another. Get medical attention if irritation persists.

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

4.2 Most important symptoms and effects, both acute and delayed

The product when handled in the form supplied is not dangerous for the human health.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media - Suitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

None.

5.3 Advice for firefighters

Material will not burn and will not be affected by other extinguishing media used to fight fires that may be present in surrounding areas.

5.4 Further information

None.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dusts. Use suitable personal protective equipment (refer to Section 8 for details).

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Spray with water to prevent the generation of dust. Do not dry sweep residues. Contain so as to avoid the generation of dust (i.e., cover or enclose). Scoop up and place in container to await transfer. Recycle and reuse material where possible. Do not dry sweep residues.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use heavy duty gloves to prevent mechanical irritation. Handle with care to prevent dust formation.

7.2 Conditions for safe storage, including any incompatibilities

Not applicable.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with occupational exposure limits

| Component | CAS No. | Reference period | Exposure Limit | Basis |
|-------------------|---------------------------------------|------------------|-----------------------|--------------|
| Respirable Silica | 14808-60-7 | 8hr TWA | 0.1 mg/m ³ | UK. EH40 WEL |
| Nuisance Dust | Respirable Fraction Total Fraction | 8hr TWA | 4 mg/m ³ | UK. EH40 WEL |
| | | 8hr TWA | 10 mg/m ³ | |

8.2 Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face Protection: Use equipment for eye protection tested and approved under appropriate standards such as EN 166 if eye contact with dusts is likely.

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with good practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Recommended glove types include any impervious heavy duty glove.

Body Protection: Impervious clothing, the type of protective equipment must be selected according to the prevalent conditions at the specific workplace.

Respiratory Protection: Where risk assessment in accordance with the hierarchy of controls established within the Chemical Agents Directive shows a requirement for respirators as a means of control use a particulate filter type P3 or equivalent.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | | |
|----|--|------------------------|
| a) | Appearance | Fine free flowing sand |
| b) | Odour | None |
| c) | Odour Threshold | Not applicable |
| d) | pH | Not applicable |
| e) | Melting point/freezing point | Not applicable |
| f) | Initial boiling point and boiling range | Not applicable |
| g) | Flash point | Not applicable |
| h) | Evaporation rate | Not applicable |
| i) | Flammability (solid, gas) | Non flammable |
| j) | Upper/lower flammability or explosive limits | Non-explosive |
| k) | Vapour pressure | No data available |
| l) | Vapour density | Not applicable |
| m) | Relative density | >2.65 |
| n) | Water solubility | No data available |
| o) | Partition coefficient: (n- octanol/ water) | No data available |
| p) | Auto-ignition temperature | Not applicable |
| q) | Decomposition temperature | No data available |
| r) | Viscosity | Not applicable |
| s) | Explosive properties | None |
| t) | Oxidizing properties | None |

9.2 Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable.

10.2 Chemical stability

Stable at normal temperatures and under recommended storage conditions.

10.3 Possibility of hazardous reactions

None expected under normal conditions.

10.4 Conditions to avoid

None.

10.5 Incompatible materials

Strong mineral acids.

10.6 Hazardous decomposition products

No hazardous decomposition products when stored and handled correctly.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

None

Skin corrosion/irritation and serious eye damage/eye irritation

Excessive contact with dust or fine particles may cause mechanical irritation

Respiratory or skin sensitisation

None

Germ cell mutagenicity

None

Carcinogenicity

IARC classifies respirable crystalline silica as a Group 1 carcinogen. The carcinogenic status of respirable silica is further addressed below.

Reproductive toxicity

None

Specific target organ toxicity - single exposure

None

Specific target organ toxicity - repeated exposure

Prolonged exposure by inhalation may lead to silicosis. See below for further details.

Aspiration hazard

Not applicable

Potential health effects - Inhalation, ingestion, skin and eyes

None when intact. Prolonged handling aggregates may cause mechanical abrasion of skin. Inhalation of dusts containing respirable silica may cause serious chronic health effects (see below).

Signs and Symptoms of Exposure

Contact with eyes can cause mild transient eye irritation. Contact with skin may cause mechanical skin irritation and possible dermatitis. Chronic exposure by inhalation may cause cough, breathlessness and lung fibrosis.

Additional Information

Prolonged inhalation of respirable 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.

SECTION 12: Ecological information

12.1 Toxicity

Not applicable.

12.2 Persistence and degradability

Not applicable.

12.3 Bioaccumulative potential

Not applicable.

12.4 Mobility in soil

Not applicable.

12.5 Results of PBT and vPvB assessment

Will not meet PBT or vPvB criteria.

12.6 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

To be disposed of by recycling or reuse. Not classified as hazardous waste, can be disposed of as normal industrial waste.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name

ADR/RID/IMDG/IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine Pollutant: no IATA: no

14.6 Special precautions for user

No data available

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 (as amended) and SI 2019:758 (UK REACH)

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

Health & Safety at Work etc. Act 1974

Control of Substances Hazardous to Health Regulations 2002
(as amended)

Chemicals (Hazard Information and Packaging for Supply)
Regulations 2009

Classification, Labelling and Packaging of Substances and
Mixtures Regulations 2008 (as amended)

EH40/2005 Workplace Exposure Limits (as amended)

Environmental Protection Act 1990

Hazardous Waste Regulations 2005 (as amended)

15.2 Chemical Safety Assessment

No data available.

SECTION 16: Other information

Further information

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

H372i Causes damage to organs through prolonged or repeated exposure by inhalation

Revision History

Revision to version 3 of November 2017 in line with legislative updates and changes.

Recommended restrictions on use

Use in accordance with manufacturer's technical instructions.

The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations, management and for people working with or handling these products. This information is believed to be reliable and updated at Revision Date and represents the best information currently available and known by Aggregate Industries UK Limited. (Aggregate). However, Aggregate makes no guarantee or warranty, express or implied, with respect to such information and we assume no liability resulting from its use. The information related herein is based on proper handling and anticipated uses and is for the material without chemical additions or alterations. Users should make their own investigations to determine the suitability of the information for their particular purposes. It is the responsibility of the user to undertake a suitable risk assessment/COSHH assessment prior to using this material.