

SAFETY INFORMATION SHEET

Date of issue: January 2016

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

GRAVEL

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

Sports and leisure

1.3 Details of the supplier of the safety data sheet

Vitax Limited

Owen Street

Coalville

LE67 3DE Tel: 01530 510060 Email: info@vitax.co.uk

1.4 Emergency Contact:

Tel: 01530 510060 (Office Hours)

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification CLP Classification (Regulation (EC) 1272/2008):

Quartz sand/gravel does not meet the criteria for classification as dangerous as defined in Directive 67/548/EEC (classification, packaging and labelling of dangerous substances).

2.2 Label elements

Not Classified

2.3 Other hazards

The grain size distribution of silica sand/gravel 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 should be monitored and controlled.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance

Chemical:

SiO₂ (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

REACH Reg. No:

Exempted

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

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

Eye contact

Wash with copious quantities of water.

Ingestion

Not hazardous. No special first aid measures necessary.

Inhalation

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

Skin contact

Not hazardous. No special first aid measures necessary.

4.2 Most important symptoms and effects

No specific information.

4.3 Indication of any immediate medical attention and special treatment needed

No specific information. Treatment symptomatic.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Does not burn. Use extinguishing media suitable for surrounding materials.

Unsuitable extinguishing media:

Not applicable.

Special exposure hazards:

No hazardous releases in case of fire.

Special protective equipment for fire fighters:

Not applicable.

5.2 Special hazards arising from the substance or mixture

None known.

5.3 Advice for fire-fighters

No specific protection required.

6. ACCIDENTAL RELEASE MEASURES

6.1 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.

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6.2 Environmental precautions	No special requirements.
6.3 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 Precautions for safe handling	Avoid airborne dust generation. Handle bags carefully so as to prevent accidental bursting. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment.
7.2 Conditions for safe storage	Keep containers closed and store/handle bagged products so as to prevent accidental bursting.
7.3 Specific end use	Play Sand.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters	
Exposure limit values	Respect workplace regulatory provisions for all types of airborne dust (total dust, respirable dust and respirable crystalline silica dust). The UK Control of Substances Hazardous to Health Regulations 2002 (as amended) require adherence to good practice principles in the control of exposure to hazardous substances. Additionally, a WEL (Workplace Exposure Limit) for respirable crystalline silica dust of 0.1mg/m ³ applies in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average).
8.2 Exposure controls	
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.
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.
Eye protection	Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.
Environmental exposure controls	No special requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid, granular, yellow/brown.
Odour	Odourless.
Density:	2.65 g/cm ³
SiO ₂ %:	ca. 99 %
Grain shape:	sub-angular
Particle size range:	4-10mm nominal
Solubility in water:	negligible
Solubility in hydrofluoric acid	yes
Melting point:	1610°C
Molecular weight:	60.1

10. STABILITY AND REACTIVITY

10.1 Reactivity	Not considered chemically reactive
10.2 Chemical stability	Stable under normal ambient conditions and under the anticipated conditions of use
10.3 Possibility of hazardous reactions	None known
10.4 Conditions to avoid	None known
10.5 Incompatible materials	None known
10.6 Hazardous decomposition products	None known

11. TOXICOLOGICAL INFORMATION

Skin irritation:	Data shows no skin irritation effects.
Eye irritation:	Data shows no eye irritation effects.
Chronic effects	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*). So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required (see IMA-Europe table of OELs in the EU at <http://www.ima-eu.org/en/publication.htm>).

12. ECOTOXICOLOGICAL INFORMATION

12.1 Toxicity	No specific adverse effects known
12.2 Persistence and degradability	Information not available
12.3 Bioaccumulative potential	Information not available
12.4 Mobility in soil	Information not available
12.5 Results of PBT and vPvB	Not classified
12.6 Other adverse effects	Information not available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	
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.
Packaging	No specific requirements. Recycling and disposal of packaging should be carried out by an authorised waste management company.

14. TRANSPORT INFORMATION

14.1 UN number:	Product is unclassified for transport
14.2 UN proper shipping name:	Product is unclassified for transport
14.3 Transport hazard	Product is unclassified for transport
14.4 Packing group:	Product is unclassified for transport
14.5 Environmental hazards:	Product is unclassified for transport
14.6 Special precautions for user:	Product is unclassified for transport
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Applicable for Maritime bulk transport only. Check with carrier.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.	
National Legislation	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.
European Legislation	Quartz sand does not meet the criteria for classification as dangerous as defined in Directive 67/548/EEC.
15.2 Chemical Safety Assessment	CSA not undertaken for this substance

16. OTHER INFORMATION

Liability	The information provided is to the best of Vitax 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.
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UK Health and Safety Executive - silica (quartz)

Extract taken from <http://www.hse.gov.uk/quarries/silica.htm>

Quartz is found in almost all kinds of rock, sands, clays, shale and gravel. Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as "silicosis". It usually takes a number of years of regular daily exposure before there is a risk of developing silicosis. Silicosis is a disease that has only been seen in workers from industries where there is a significant exposure to silica dust, such as in quarries, foundries, the potteries etc. No cases of silicosis have been documented among members of the general public in Great Britain, indicating that environmental exposures to silica dust are not sufficiently high to cause this occupational disease. In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis. It should also be noted that excessive long term exposures to almost any dust, are likely to lead to respiratory (breathing) problems.

Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by HSE in the following Hazard Assessment Documents EH75/4 and EH75/5. These documents are available from HSE Books.