

SILICA SAND SAFETY DATA SHEET

1 IDENTIFICATION AND USE OF THE SUBSTANCE

Substance Quartz
 Synonyms Quartz Sand, Silica Sand, Crystalline Silica, Silicon Dioxide
 Registration Number Exempted according to Article 2 § (7) of REACH
 Trade/Brand Names Filter sand, Calibrated Sand

Main applications of quartz sand – non exhaustive list

Glass, Silicate chemistry, abrasives, foundry sand, filler for textured coatings, glues and mortars, filtration, sports and leisure, specialist construction etc.

2 HAZARD IDENTIFICATION

Quartz Sand does not meet the criteria for classification as dangerous as defined in Directive 67/548/EEC.

Precautionary Information The product does not give potential for generation of respirable dust during handling and use. Dust may contain respirable crystalline silica. 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 dust and respirable crystalline silica should be monitored and controlled.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name Quartz
 Chemical Silicon Dioxide – ca. 96%
 EINECS 238-878-4
 CAS 14808-60-7
 REACH Register No. Exempted
 Classification EU (67/548/EC) None

4 FIRST AID MEASURES

Eye Contact Rinse with copious quantities of water immediately
 Ingestion Not hazardous. No special first aid measures necessary
 Inhalation No special first aid measures. Remove to fresh air and consult a physician if necessary
 Skin Contact Not hazardous. No special first aid measures necessary

5 ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid airborne dust generation. In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment in compliance with national legislation.
 Environmental Precautions No special requirements.
 Methods for cleaning up Use water spraying or vacuum cleaning systems to prevent airborne dust generation. Avoid dry sweeping.

6 HANDLING & STORAGE

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.
 If you require advice on safe handling techniques please contact your supplier or refer to Section 15
 Storage Ensure abatement of airborne dust produced during the loading of silos.
 Keep containers closed and store bagged products so as to prevent accidental bursting.

For industry specific guidance, check the Good Practice Guide referred to in Section 16.

7 EXPOSURE LIMIT VALUES

Exposure Limit Values

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

The OEL (Occupational Exposure Limit for respirable crystalline silica dust is 0.075mg/m³ in the Netherlands. For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.

Occupational Exposure Controls

Control of occupational exposure may be achieved by enclosing plant and equipment and by ensuring good standards of ventilation in the workplace. Provide appropriate local exhaust ventilation in places where airborne dust is generated. Isolate personnel from dusty areas. In case of insufficient ventilation, wear suitable respiratory protective equipment. Maintain good hygiene standards and wash soiled clothing regularly.

Respiratory Protection In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment (eg dust mask or respirator with particulate filter) that complies with EN149:2001. It is good practice to conduct fit-testing when selecting respiratory protective equipment.
 Hand Protection No specific hazard
 Eye Protection Wear safety goggles or safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.
 Skin Protection No specific hazard.

Environmental Exposure Controls

No specific requirements

8. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid, granular, in various colours (from white to brown)
Odour	Odourless
Density	2.65g/cm ³
Grain Shape	Sub-angular
Water Solubility	Negligible
Solubility in hydrofluoric Acid	Yes
Melting Point	1610°C

9. STABILITY AND REACTIVITY

Conditions & Materials to Avoid	No particular incompatibility
Hazard Decomposition Products	Chemically stable

10. TOXICOLOGICAL INFORMATION

Data shows no skin or 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 applicable (see IMA-Europe table of OELs in the EU at www.ima-eu.org/en/publication.htm)

11. ECOLOGICAL INFORMATION

No specific adverse effects known. Not persistent, not bio accumulative.

12. DISPOSAL CONSIDERATIONS

Waste from residues/unused products Can be land filled 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.

13. TRANSPORT INFORMATION

No special requirement

14. REGULATORY INFORMATION

European Information

Directive 67/548/EEC

Dry Blasting

Quartz sand does not meet the criteria for classification as dangerous as defined in Directive 67/548/EEC.

According to national regulations in EU member states, sand containing more than a certain amount of free crystalline silica cannot be used for dry blasting. This amount varies between 1% and 5%, according to country.

15. OTHER INFORMATION

Insofar as materials not manufactured or supplied by Irwins are used in conjunction with, or instead of Irwins materials, it is the responsibility of the customer 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 Irwins Silica Sand with materials from another supplier.

A multi-sectorial social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products containing it was signed on 25th April 2006. This autonomous agreement, which receives the European Commissions financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25th October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from www.nepsi.eu and provide useful information and guidance for the handling of products containing respirable crystalline silica.

Whilst every effort has been made to be as accurate as possible, Irwins Quality Aggregates provides no warranty with respect to this information and disclaims all liability associated with its use.

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