

SILICA FLOUR, QUARTZ FLOUR

Safety Data Sheet 53, 87, C600 Date of issue: 24/02/2017 Revision date:

Safety Data Sheet (in compliance with Reach Regulation EC 1907/2006, Regulation (EC) 1272/2008 and regulation (EC) 453/2010)

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

1.1. **Identification of the substance or preparation**

SILICA FINE, SILICA FLOUR, QUARTZ FLOUR

1.2. **Use of the substance / preparation**

Main applications of silica flour - non-exhaustive list:
paint, ceramics, glass fibre, adhesives, plastics, rubber sealants,
special concrete, silicone, abrasives...

1.3. **Company / undertaking identification**

Simba Materials Limited t/a CTM Potters Supplies	Unit10A Millpark Ind Estate
Unit 7-8 Broomhouse Lane Ind Estate	White Cross Road
Edlington	Woodbury Salterton
Doncaster	EX5 1EL
DN12 1EQ	T +44 (0) 1395 233077
T +44 (0) 1709 770801	F +44 (0) 1395 233905
F +44 (0) 1709 770803	admin@ctmpotterssupplies.co.uk
doncaster@ctmpotterssupplies.co.uk	

1.4. **Emergency telephone**

+44 (0) 1709 770801 office hours only

2. **HAZARD IDENTIFICATION**

2.1 Classification of the substance:

The grain size distribution of this product gives potential for generation of airborne respirable crystalline silica dust during handling and use.

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.

Regulation EC 1272/2008:

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STOT RE1 Danger

H372: Causes damage to lung through prolonged or repeated exposure by inhalation

Classification EU (67/548/EEC):

Pictogram code: GHS08

Symbol letter: Xn,

Indication of Danger: Harmful

R-Phrases: R48/20: Harmful: Danger of serious damage to health by prolonged exposure by inhalation

This product contains more than 10% quartz (respirable)

2.2 Label Elements:



Signal Word: DANGER

Hazard Statement: H372: Causes damage to lungs through prolonged or repeated exposure by inhalation

Precautionary Statement: P260 Do not breath Dust
P285 In case of inadequate ventilation wear respiratory protection
P314 Get medical attention/advice if you feel unwell
P501 Dispose of contents/comtainers in accordance With local regulation

Other Hazards: This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH

3. **COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical	:	SiO ₂ (ca. 99 %)
Mineralogical	:	alpha quartz
E.I.N.E.C.S.-N°	:	238-878-4

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C.A.S.-N° : 14808-60-7
EU-classification : no classification
IUPAC Name : silicon dioxide
REACH : Exempt according to Article 2(AnnexV.7) of REACH

3.2 Impurities: This product contains more than 10% quartz (respirable), which is classed as STOT RE1

4. **FIRST AID MEASURES**

4.1 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.

4.2 Most important symptoms and effects both acute and delayed – None observed

4.3 Indication of any immediate medical attention and special treatment needed – none required

5. **FIRE-FIGHTING MEASURES**

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

5.1 Suitable extinguishing media Not applicable

Extinguishing media which should not be used - Not applicable

5.2 Special exposure hazards Not applicable

Special protective equipment for fire fighters - Not applicable

5.3 Advice to firefighters – no specific fire-fighting protection is required

6. **ACCIDENTAL RELEASE MEASURES**

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6.1 Personal precautions: Avoid airborne dust generation. In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment in compliance with national legislation.

6.2 Environmental precautions: No special requirements.

6.3 Methods for cleaning up: Use water spraying or vacuum cleaning systems to prevent airborne dust generation. Avoid dry sweeping. Wear personal protective equipment in compliance with national legislation.

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. Do not eat, drink and smoke in work areas; wash hands after use.

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 OEL (Occupational Exposure Limit) for respirable crystalline silica dust is 0.1 mg/m³ in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average). For equivalent limits in other countries please consult a competent occupational hygienist or the local regulatory authority.

8.2. **Exposure controls**

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8.2.1. Appropriate Engineering Controls

Minimise airborne dust. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specific exposure limits. If user operation generates dust, fumes or mist, use ventilation to keep exposure to airborne particles below exposure limits. Apply organisational measures e.g. by isolating personnel from dusty areas. Remove and wash soiled cloths.

8.2.2. 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.

a) Eye/face protection. Wear safety glasses with side shields in circumstances where there is a risk of eye penetrative injuries

b) Skin protection. No specific requirement. For hands see below. Appropriate protection (eg protective clothing, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin

c) Hand protection: Gloves, barrier cream is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session

d) Respiratory protection: In case of prolonged exposure to airborne dust concentrations, wear a respiratory protective equipment that complies with the requirements of European or national legislation

8.2.3. Environmental exposure controls

No special requirements. Avoid wind dispersal.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance
solid, white powder

Odour
Odourless

9.2. Important health, safety and environmental information

Density : 2.65 g/cm³

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SiO ₂ %	:	ca. 99 % (see technical data sheet)
Grain shape	:	angular
Particle size range	:	cfr. technical data sheet
Solubility in water	:	negligible
Solubility in hydrofluoric acid	:	yes
pH	:	9 (400g/l water as at 20°C)

9.3. **Other information**

Melting point	:	1610°C
Molecular weight	:	60.1

10. **STABILITY AND REACTIVITY**

Chemically stable, no particular incompatibility

11. **TOXICOLOGICAL INFORMATION**

- a) Acute toxicity. Based on available data, classification criteria not met
- b) Skin corrosion/irritation. Based on available data, classification criteria not met
- c) Serious eye damage irritation: Based on available data, classification criteria not met
- d) Respiratory or skin sensitisation: Based on available data, classification criteria not met
- e) Germ Cell mutagenicity: Based on available data, classification criteria not met
- f) Carcinogenicity: Based on available data, classification criteria not met
- g) Reproductive toxicity: Based on available data, classification criteria not met
- h) STSO-single exposure: Based on available data, classification criteria not met
- i) STOT-repeated exposure: This product contains cristobalite (respirable) and quartz (respirable) as an impurity and therefore classified as STOT RE1 according to criteria defined in Regulation EC 1272/2008

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*

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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).

Detailed reviews have been published on the health effects of crystalline silica have been detaild by HSE (Health and Safety Executive) UK in the Hazard Documents EH75/4 (2002) and EH75/5 (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 and implementing additional risk management measures where required.

j) Aspiration : Based on available data, the classification criteria are not met.

12. **ECOTOXICOLOGICAL INFORMATION**

12.1 Toxicity	Not relevant
12.2 Persistence and degradability	Not relevant
12.3 Bioaccumulation potential	Not relevant
12.4 Mobility in soil	Negligible
12.5 Results of PBT and vPvB assess	Not relevant
12.6 Other adverse effects	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. Where possible, recycling is preferable to disposal.

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Packaging

Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in sealed receptacles. The re-use of packaging is not recommended.

14. **TRANSPORT INFORMATION**

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

14.1 UN Number	Not relevant
14.2 UN Shipping name	Not relevant
14.3 Transport Hazard class	ADR: Not classified IMDG: Not classified ICAO/IATA: Not Classified RID: Not classified
14.4 Packing Group	Not relevant
14.5 Environmental Hazards	Not relevant
14.6 Special precautions for user	No special precautions
14.7 Transport in bulk according to Annex II of MARPOL 73/78 And the IBC code	Not relevant

15. **REGULATORY INFORMATION**

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

International legislation requirements:

Regulation 1907/2006 (REACH): exempted according to art 2 paragraph 7
European Directive on Dangerous substances 67/548: this product is no classified as dangerous

European Community labelling: Labelling STOT RE1

SARA 311/312: Hazard categories for SARA Section 311/312 reporting: Chronic health

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CERCLA Section 103 Reportable Quantity: None

Californian Proposition 65: This product contains substances regulates under Californian Proposition 65

Toxic Substances control act: All of the components of this product are listed on the EPA TSCA Inventory or exempt from pre-manufacture notification requirements

European Inventory of Commercial Chemical Substances: All of the components of this product are listed on the EINICS Inventory or exempt from notification requirements

Canadian Environmental Protection Act: All the components of this product are listed on the Canadian Domestic Substances List or exempt from notification requirements

Canadian WHMIS Classification: Not a controlled product

Japan METI: All of the components of this product are existing chemical substances as defined in the chemical Substances Control Law

Australia Inventory of Chemical Substances: All of the components of this product are listed on the AICS inventory or exempt from notification requirements

Korea: All of the components of this product are listed on the ECL inventory or exempt from notification requirements

Philippines: All of the components of this product are listed on the PICCS inventory or exempt from notification requirements

15.2 Chemical safety assessment:

Exempted from REACH Registration in accordance with Annex V.7

16. OTHER INFORMATION

Third party materials

Insofar as materials not manufactured or supplied by Simba Materials Limited are used in conjunction with, or instead of Simba Materials Limited 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

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materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of Simba Materials Limited silica flour in conjunction with materials from another supplier.

Liability

Such information is to the best of Simba Materials Limited 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.

Restrictions on use

According to the Control of Substances Hazardous to Health Regulations 2002, there are restrictions on the use of ground quartz in certain processes associated with the manufacture and decoration of pottery.

Social Dialogue on Respirable Crystalline Silica

A multi-sectoral social dialogue agreement on *Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it* was signed on 25 April 2006. This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 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 <http://www.nepsi.eu> and provide useful information and guidance for the handling of products containing respirable crystalline silica.

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. If exposure cannot be controlled to 0.1 mg/m³ (8 hour TWA) or below by elimination or process or engineering controls, then exposure must be controlled by provision and use of suitable respiratory protective equipment."

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The full text of the notice is available at: www.hse.gov.uk/pubns/chan35.htm

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.

Literature references are available on request from EUROSIL, the European Association of Industrial Silica Sand Producers, Bd. S. Dupuis 233 Bte 124, 1070 Brussels, Belgium. Tel: +32 (0)2 524 55 00, Fax: + 32 (0)2 524 45 75, e-mail: secretariat@ima-eu.org.