

In compliance with Regulation (EC) 1907/2006, Regulation (EC) 453/2010, and Regulation (EC) 1272/2008 Revision date 17/10/2018
 Version 02

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

| | | |
|------------|---|--|
| 1.1 | Product Identifier: | |
| | Name | Cristobalite flour |
| | Reach Registration No. | Exempted in accordance with Annex V.7. |
| | Synonyms | Silicon dioxide, calcined silica |
| | Trade names | C100, C200 |
| 1.2 | Relevant identified uses of the substance | |
| | Main applications – non exhaustive list | Investment Casting, Filler for paints and coatings, adhesives and sealants, plastics and elastomers. |
| 1.3 | Details of the supplier of the safety data sheet | |
| | Company name | Hoben International Limited |
| | Address | Manystones Lane Brassington MATLOCK Derbyshire DE4 4HF United Kingdom |
| | Phone No. | +44 (0) 1629 540201 |
| | Fax No. | +44 (0) 1629 540605 |
| | Email | sales@hobeninternational.com |
| 1.4 | Emergency telephone number | |
| | Telephone number | +44 (0) 1629 540201 |
| | Available outside of office hours? | No |

2. HAZARD IDENTIFICATION

2.1 Classification of the substance
 2.1.1 *Classification according to Regulation (EC) No 1272/2008 [CLP]*
 Specific Target Organ Toxicant – Repeated Exposure Category 2 - This product contains respirable crystalline silica (Cristobalite) at a concentration of >1% but <10%.



H373: May cause damage to lungs through prolonged or repeated exposure via inhalation

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2.2 Label elements

Hazard pictogram



Signal word

WARNING

Hazard statement

H 373 – May cause damage to lungs through prolonged or repeated inhalation

Precautionary statements

P 260 – Do not breath dust
P 284 – Wear respiratory protection
P 501 – Dispose of contents/containers in accordance with local regulations

2.3 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

3.1 Main constituents

| Name | Amount | CAS No | EINECS |
|--------------|--------|------------|-----------|
| Cristobalite | >85% | 14464-46-1 | 238-455-4 |

3.2 Impurities

Contains between 1 and 10% of respirable Cristobalite and is classified as STOT RE 2

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye Contact: Rinse with copious quantities of water and seek medical attention if irritation persists.

Inhalation: Move exposed person to fresh air immediately and seek medical advice if required.

Ingestion: No first aid measures required.

Skin Contact: No first aid measures required.

4.2 Most important symptoms and effect, both acute and delayed

No acute and delayed symptoms and effects are observed.

4.3 Indication of any immediate medical attention and special treatment needed

No specific actions are required.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media:

No specific extinguishing media is needed.

5.2 Special hazards arising from the substance or mixture:

Non combustible. No hazardous thermal decomposition.

5.3 Advice for Firefighters:

No specific fire fighting protection is required.

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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation.

6.2 Environmental precautions

No special requirements.

6.3 Methods and material for containment and cleaning up

Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.

6.4 Reference for other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe 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. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques please contact your supplier or check the Good Practise Guide referred to in section 16.

Do not eat or drink in work areas; wash hands after use; remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting.

7.3 Specific end uses

If you require advice on specific uses please contact your supplier or check the Good Practice Guide referred to in section 16.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, respirable crystalline silica dust)

The WEL (Workplace Exposure Limit) for respirable crystalline silica dust is 0.1 mg/m³ in the UK, measured as an 8 hour TWA (Time Weighted Average).

For the equivalent limits in other countries consult your local regulatory authority.

8.2 Exposure controls

8.2.1 *Appropriate engineering controls*

Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering control methods to keep airborne levels below the specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g. by isolating personal from dusty areas. Wash hands before breaks and at the end of the day. Remove and wash soiled clothing

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8.2.2 Individual protection measures such as personal protective equipment

- | | |
|---------------------------|--|
| a) Eye protection | Safety glasses with side shields. Use equipment for eye protection tested and approved under appropriate standards. |
| b) Skin protection | No specific requirement. For hands see below. |
| c) Hand protection | Appropriate protection (e.g. 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 respiratory protective equipment (e.g., respirator, powered air respirator) that complies with the requirements of European or national legislation. |

8.2.3 Environmental exposure controls

Avoid wind dispersal

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|---------------------------------|-----------------------|
| Appearance | Solid, white powder |
| Odour | Odourless |
| Odour threshold | Not relevant |
| pH | 6.5 |
| Melting point | 1718°C |
| Density | 2.35g/cm ³ |
| Grain shape | Angular |
| Solubility in water | Negligible |
| Solubility in hydrofluoric acid | Yes |

9.2 Other information

No other information

10. STABILITY AND REACTIVITY

10.1 Reactivity - Inert, not reactive

10.2 Chemical Stability - Chemically stable

10.3 Possibility of hazardous reactions - No hazardous reactions

10.4 Conditions to avoid - Not relevant

10.5 Incompatible materials - No particular incompatibility

10.6 Hazardous decomposition products - Not relevant

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- | | |
|----------------------------------|--|
| a) Acute toxicity | No evidence of acute toxicity. |
| b) Skin corrosion/irritation | Substance is not corrosive, may cause mechanical irritation. |
| c) Serious eye damage/irritation | May cause mechanical irritation. |
| d) Respiratory or skin sensation | No evidence of sensitisation |
| e) Germ cell mutagenicity | No evidence of mutagenicity |
| f) Carcinogenicity | Lung cancer excess risk is demonstrated only under high occupational exposures to respirable crystalline silica. The lung cancer excess risk is restricted to people who contract silicosis. |
| g) Reproductive toxicity | No evidence of reproductive toxicity |

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| h) | STOT-single exposure | Based on available data, criteria's are not met. |
| i) | STOT-repeated exposure | Prolonged inhalation of high levels of respirable crystalline silica has been shown to cause silicosis, a nodular pulmonary fibrosis. |
| j) | Aspiration hazard | Based on available data, the classification criteria are not met |
| 12. ECOLOGICAL INFORMATION | | |
| 12.1 | Toxicity | Not relevant |
| 12.2 | Persistence and degradability | Not relevant |
| 12.3 | Bioaccumulative potential | Not relevant |
| 12.4 | Mobility in soil | Negligible |
| 12.5 | Results of PBT and vPvB assessment | Not relevant |
| 12.6 | Other adverse effects | No specific adverse effects known |
| 13 DISPOSAL CONSIDERATIONS | | |
| 13.1 | Waste treatment methods | |
| | Product | Where possible, recycling is preferable to disposal. Disposal should be carried out in compliance with local regulations. |
| | Packaging | Dust generation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles. Disposal of packaging should be carried out in compliance with local regulations by an authorized waste management company. |
| 14. TRANSPORT INFORMATION | | |
| 14.1 | UN number | Not relevant |
| 14.2 | UN proper shipping name | Not relevant |
| 14.3 | Transport hazard classes | |
| | ADR | Not classified |
| | IMDG | Not classified |
| | ICAO/IATA | Not classified |
| | RID | Not classified |
| 14.4 | Packing group | Not applicable |
| 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 | |
| | <i>National legislation/requirements</i> | |
| | <i>International legislation/requirements</i> | |
| | Regulation (EC) No 2037/2000 | Not relevant |
| | Regulation (EC) No 850/2004 | Not relevant |
| | Regulation (EC) No 689/2008 | Not relevant |
| 15.2 | Chemical safety assessment | |
| | This product is exempted from REACH in accordance with Annex V.7 of Regulation (EC) 1907/2006 | |

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16. OTHER INFORMATION

- (i) Indication of changes
Changes have been made to comply with regulations
(EC) 1907/2006
(EC) 1272/2008
(EC) 453/2010
- (ii) Abbreviations and acronyms
EC: European Commission
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals and Substances
TWA: Time Weighted Average
STOT: Specific Target Organ Toxicity
PBT: Persistent, Bioaccumulative, Toxic
vPvB: very Persistent and very Bioaccumulating
- (iii) Key literature references and sources for data
EH40/2005 Workplace exposure limits (Third Edition, 2018)
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans Volume 68 Silica (1997)
- (iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]
This material is classified as STOT RE 2 according to the procedure given in section 3.9 of Regulation (EC) 1272/2008

- (v) Relevant H-statements (number and full text)
H373: May cause damage to lungs through prolonged or repeated exposure via inhalation
- (vi) Training advice
All employees should be given adequate training in the proper use and handling of this product and any precautions and protective equipment required under applicable regulations.
- (vii) Further information
EH44/1997 - Dust: General Principles of Protection.
EH75/4 (2002) - Respirable Crystalline Silica - Phase 1.
EH75/5 (2003) - Respirable Crystalline Silica - Phase 2.
HSG258 – Controlling airborne contaminants at work.

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his/her own particular use.