
1. Identification of the Product and Supplier

Product name:	Microsilica
Product application:	<ul style="list-style-type: none">- Production of mortars and castables.- Production of insulating materials.- Production of ceramic and refractory products.- Other industrial applications.
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REACH and CLP helpdesk:	REACH Website: https://echa.europa.eu/home
Emergency Phone No.:	https://echa.europa.eu/support/helpdesks

2. Hazards Identification

Classification of the substance:	The product does not meet the criteria for hazard classification in accordance with Directive 67/548/EEC (DSD) and Regulation (EC) No. 1272/2008 (CLP).
Hazard symbol/Hazard pictogram:	N/A (not applicable)
Symbol letter/Indication of danger:	N/A (not applicable)
Signal word:	N/A (not applicable)
R-/H-phrases:	N/A (not applicable)
S-/P-phrases:	N/A (not applicable)

Silica fume may contain small amounts of crystalline quartz (< 0.5 %). The amount of respirable crystalline silica in the product is below 0.1 % and does not trigger a hazard-classification

3. Composition/Information on Ingredients

Synonyms:	Microsilica, silica fume, amorphous silica (SiO ₂), silicon dioxide powder
IUPAC-name:	Silicon dioxide
CAS No.:	69012-64-2
EINECS No.:	273-761-1

4. First Aid Measures

Inhalation:	Remove exposed person from dusty area. Fresh air.
Skin contact:	Wash contaminated skin with water and/or mild detergent
Eye contact:	Rinse eyes with water/saline solution. If discomfort persists, obtain medical attention.
Ingestion:	Remove the person affected from dust exposed area. See inhalation.

5. Fire Fighting Measures

The product is not combustible and there is no inherent risk of explosion.

Extinguishing media:	Not applicable depending on surrounding fire.
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6. Accidental Release Measures

Avoid exposure to dust. Released material should be collected in suitable containers. Dry dust can be vacuumed or swept up.

7. Handling and Storage

Handling:	Avoid dust dispersion. See section 8.
Storage:	Keep away from hydrofluoric acid (HF). Keep dry. Not to be stored at temperatures near to or below 0°C.

8. Exposure Controls/Personal Protection

A) Occupational exposure controls:

Avoid inhalation of dust. Ensure good ventilation during use. Wear a particulate respirator according to EN 149 FFP 2S/3S during dust generating operations. Use protective gloves and eye protection. Facilities for eye flushing should be available.



National Occupational Exposure Limits (OEL) have to be adhered.

B) Environmental exposure controls

Target value and limit value for PM10 and PM2.5 (Directive 2008/50/EC):

	Averaging period	Limit value	By date
PM ₁₀	One day	50 µg/m ³ *	1 January 2005
PM ₁₀	Calendar year	40 µg/m ³	1 January 2005
		Target value	
PM _{2,5}	Calendar year	25 µg/m ³	1 January 2010
		Limit value	
PM _{2,5}	Calendar year	25 µg/m ³	1 January 2015

- Not to be exceeded more than 35 times a calendar year.

9. Physical and Chemical Properties

Form:	Ultrafine amorphous powder (respirable dust). Dust forms agglomerates.
Colour:	Grey, light grey.
Odour:	Odourless.
Melting Point (°C):	1550 - 1570
Solubility (Water):	Insoluble/slightly soluble.
Solubility (Organic solvents):	Insoluble/slightly soluble.
Specific Gravity (water =1):	2.2 - 2.3
Bulk density (kg/m ³):	≈ 150-700
Specific surface (m ² /g):	15 - 30
Particle size, mean (µm)	0.15 (less than 0.1 % of primary particles > 45 µm)

10. Stability and reactivity

Conditions to avoid:	See below.
Materials to avoid:	Hydrofluoric acid (HF).
Hazardous Decomposition Product(s):	The product reacts with hydrofluoric acid (HF) forming toxic gas (SiF ₄).

Heating the product above 1000 °C can result in the formation of crystalline SiO₂-modifications as cristobalite/tridymite which may cause pulmonary fibrosis (silicosis).

11. Toxicological Information

The product does not meet the criteria for hazard classification according to Directive 67/548/EEC (DSD) and Regulation (EC) No. 1272/2008 (CLP).

Acute effects:

Ingestion:	Finely divided dust may cause mechanical irritation and dehydration of mucous membranes.
Inhalation:	Finely divided dust may cause mechanical irritation and dehydration of mucous membranes.
Skin Contact:	Finely divided dust may cause mechanical irritation and dehydration.
Eye Contact:	Finely divided dust may cause mechanical irritation and dehydration.

Chronic effects:

Inhalation of mikrosilica dust is considered to entail minimal risk of pulmonary fibrosis (silicosis). However, chronic obstructive lung disease is suspected following long term exposure (years) for concentrations above recommended occupational exposure limits.

12. Ecological Information

PCC BakkiSilicon Microsilica is not characterized as dangerous for the environment.

Mobility:	The product is not mobile under normal environmental conditions.
Persistence:	Not relevant for inorganic substances.
Bioaccumulation:	Not relevant.
Eco-Toxicity:	The product does not meet the classification criteria for ecotoxicological endpoints in accordance with Directive 67/548/EEC (DSD) and Regulation (EC) 1272/2008 (CLP).

13. Disposal considerations

The material should be recovered for recycling if possible. Dispose of waste product according to applicable federal, state and local rules for non-hazardous solid waste materials. No special precautions are necessary during repackaging. The product is not a listed RCRA Hazardous Waste (40 CFR 261).

14. Disposal considerations

UN number:	Not applicable
IMDG/IMO	Not subject to classification
ADR/RID	Not subject to classification
ICAO/IATA	Not subject to classification

15. Regulatory information

A chemical safety assessment (CSA) has been carried out for the substance in accordance with Regulation (EC) 1907/2006 (REACH).

The text of this Product Safety Information is prepared in compliance with:

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on Classification, Labelling and Packaging of substances and mixtures (CLP).

16. Other information

According to Chapter 1.5.2 of the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Article 58 (2)(a), and Article 59(2)(b) of (EC) No 1272/2008 (CLP), which amends REACH article 31(1), safety data sheets (SDS) are only required for substances and mixtures that meet the harmonised criteria for physical, health or environmental hazards. Since this product does not meet these criteria, a SDS according to 453/2010/EC is not issued. In order to communicate relevant HSE (health, safety and environmental) information, this product safety information (PSI) is provided instead.

In accordance with REACH article 31(5), safety data sheets shall be supplied in an official language of the Member State(s) where the substance or mixture is placed on the market. This obligation, however, only applies for hazard-classified products which require a formal SDS. Since this product is not hazard-classified, the product safety information (PSI) is, in accordance with current regulation, provided in English language only.

REACH article 31(7) requires relevant exposure scenarios from the Chemical Safety Report (CSR) to be annexed to the SDS. However, according to REACH Annex I, section 0. (Introduction), subsection 0.6. no 4 and 5, exposure scenarios are only required for hazard-classified substances or mixtures. Since this product is not hazard-classified according to CLP, there is no requirement for exposure scenarios.

Legal Disclaimer: The information given in this sheet is to the best of PCC BakkiSilicon knowledge and believed 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.