

# Product Safety Information

## GRR Associates

### 1. Identification of the Product and Supplier

Product name: **'SILICOMIX' Micro Silica**

Product application: Cementitious systems.

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### 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) No1272/2008 (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)

Micro Silica 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: Silica fume/Silica sand (SiO<sub>2</sub>), 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 a mild detergent.  
Eye contact: Rinse eyes with water/saline solution. If discomfort persists, obtain medical attention.  
Ingestion: Not applicable.

#### 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.

#### 6. Accidental Release Measures

Avoid exposure to dust of the product. Released material should be collected in suitable containers.

#### 7. Handling and Storage

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

#### 8. Exposure Controls and Personal Protection

**Exposure Limits:** No occupational exposure limits have been established for this material.

Components:	CAS Registry #	OSHA-PEL TWA	ACGIH-TWA
Silica, Amorphous Silica Fume	69012-64-2		TLV Withdrawn due to insufficient Data
Silica-Crystalline α-Quartz	14808-60-7	0.05 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>

Material as respirable fraction of the aerosol

\*Total Dust

\*\*Respirable dust

There is no hazard classification for the amount of respirable crystalline silica in the product because when measured by X-Ray diffraction the level is below 0.1%.

**Engineering Controls:** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposures below PELs or TLVs in processing areas.

**Personal Protection:** In accordance with OSHA 29 CFR 1910.132 subpart I, wear appropriate personal protection Equipment (PPE) to minimize exposure to this material.





**Respiratory Protection:** If workplace conditions warrant a OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for approved respirators when airborne concentrations equal or exceed the Permissible Exposure Limits.

**Eye/Face Protection:** Wear tightly fitting safety goggles when a risk assessment indicates this is necessary.

**Skin/Body Protection:** Choose body protection in relation to the task being performed and the risks involved and should be approved by a specialist. Chemical-resistant gloves should be worn at all times when handling chemicals.

## 9. Physical and Chemical Properties

Form: Ultrafine amorphous powder (respirable dust).  
Dust forms agglomerates.  
Colour: Grey, off-white.  
Odour: Odourless.  
Melting pint (°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<sup>3</sup>) approx: 150-700  
Specific surface (m<sup>2</sup>/g): 15-30  
Particle Size,mean(μm): 0.15 (less than 0.1% of primary particles >45μm).

## 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<sub>4</sub>). Heating the product above 1000 °C can result in the formation of crystalline SiO<sub>2</sub>-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) No1272/2008 (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 micro silica 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**

GRR Micro Silica is not characterised as dangerous for the environment.

MOBILITY: The product is not mobile under normal environment conditions.  
PERSISTENCE: Not relevant for inorganic substances.  
BIOACCUMULATION: Not relevant.  
ECOTOXICITY: 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.  
This material is not classified as hazardous waste according to Commission Decisions 2000/532/EC and 2001/118/EC. Prior to disposal of large quantities of this material advice should be sought from the Environment Agency Office.

**14. Transport Information**

UN Not subject to classification  
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 Regulation, 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 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.

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.

#### 16. Legal Disclaimer:

The information given in this sheet is to the best of GRR Associates' knowledge and believed 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 area.

