

1. Identification of the Product and Supplier

Product name: **Elkem Microsilica[®] slurry,
EMSAC[®], Microsilica L**

Product application: Construction, refractories

Address/Phone No.: **Elkem ASA,
Silicon Materials**
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Contact: sds.esm@elkem.no

REACH registration number: 01-2119486866-17-0000

REACH and CLP helpdesk: REACH and CLP website:
<https://echa.europa.eu/support/helpdesks/>

Emergency Phone No.: <https://poisoncentres.echa.europa.eu/home>

2. Hazards Identification

Classification of the substance The product does not meet the criteria for hazard classification according to Regulation (EC) No1272/2008 (CLP) and the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 6th rev.).

Hazard pictogram: N/A (not applicable)
Signal word: N/A (not applicable)
Hazard statements: N/A (not applicable)
Precautionary statements: N/A (not applicable)

Microsilica 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: Slurry of silica fume, Aqueous dispersion of amorphous silicon dioxide (H₂O + SiO₂). Silica slurry.

Constituents (analysis):

CHEMICAL NAME	CAS #	EINECS #	% w/w
Silicon Dioxide (amorphous silica fume)	69012-64-2	273-767-1	48-52
Water	7732-18-5	231-791-2	balance

4. First Aid Measures

Inhalation: Not applicable. The product in an aqueous slurry.
Skin contact: Wash contaminated skin with water and/or a mild detergent.
Eye contact: Rinse eyes with water/saline solution. If discomfort persists, seek medical advice.
Ingestion: Not applicable.

5. Fire Fighting Measures

The product is not combustible. If the slurry becomes dry, the dust poses no risk of explosion.

Extinguishing media: Not applicable. Depending on surrounding fire.

6. Accidental Release Measures

Material should be collected in suitable containers.

7. Handling and Storage

Handling: If the slurry becomes dry, avoid generating airborne dust. See section 8.
Storage: Keep away from hydrofluoric acid (HF).
Not to be stored at temperatures near to or below 0 °C

8. Exposure Controls/Personal Protection

A. Occupational exposure controls:

Use protective gloves and eye protection. Facilities for eye flushing should be available.
If the slurry becomes dry: avoid inhalation of dust. Ensure good dust ventilation during use. Wear a particulate respirator according to EN 149 FFP 2S/3S in areas of inadequate ventilation.



Occupational Exposure Limits (ACGIH ¹⁾, 2016):

Substance	[CAS No.]	8hr TWA		ACGIH TLV 15 minute STEL		Notations
		ppm	mg/m ³	ppm	mg/m ³	
PNOS ²⁾	-	-	10 ^(I) /3 ^(R)	-	-	-
Silica, crystalline (SiO ₂) Quarz	[14808-60-7]	-	0.025 ^(R)	-	-	A2
	Cristobalite [14464-46-1]	-	0.025 ^(R)	-	-	A2

¹⁾ American Conference of Governmental Industrial Hygienists

²⁾ Particulates (Insoluble or Poorly Soluble) Not Otherwise Specified. Amorphous silica fume is considered to be PNOS. Specific TLVs for the individual substances have not been established or have been withdrawn, respectively.

^(I) Inhalable fraction

^(R) Respirable fraction

B. Environmental exposure controls:

See sections 6, 7 and 12.

9. Physical and Chemical Properties

Form:	Slurry
Colour:	Grey
Odour:	Odourless
Solubility:	The particles are insoluble in water.
Solubility (Organic solvents):	The particles are insoluble/slightly soluble.
Specific Gravity (water =1):	Typical 1.4
pH:	Typical 4-7
Specific surface (m ² /g) :	15-30
Particle size, mean (µm):	≈ 0.15 (≈ 80 weight% of primary particles have a diameter < 5 µm).

10. Stability and reactivity

Conditions to avoid: Not to be stored at temperatures near to or below 0 °C.

Materials to avoid: Hydrofluoric acid (HF).

Hazardous Decomposition Product(s):

The product reacts with hydrofluoric acid (HF) forming toxic gas (SiF₄).
Heating the product above 1000 °C can result in the formation of crystalline SiO₂-modifications such as Cristobalite / Tridymite which may cause pulmonary fibrosis (silicosis).

11. Toxicological Information

The product does not meet the criteria for hazard classification according to Regulation (EC) No 1272/2008 (CLP) and the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 6th rev.).

Acute effects:

INGESTION:	Dry product: Finely divided dust from the product may cause irritation and dehydration of mucous membranes.
INHALATION:	Dry product: Finely divided dust from the product may cause irritation and dehydration of mucous membranes.
SKIN CONTACT:	Dry product: Finely divided dust from the product may cause irritation and dehydration.
EYE CONTACT:	Dry product: Finely divided dust from the product may cause irritation and dehydration.

Chronic effects:

Microsilica slurry: Not applicable.

Microsilica (dry):

Inhalation of dust from the product 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

The product is not characterised as dangerous for the environment.

MOBILITY:	Not mobile under normal environmental 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 Regulation (EC) 1272/2008 (CLP) and the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 6 th rev.).

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 relevant Waste Regulation Authority.

14. Transport Information

UN	-
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 product in accordance with Regulation (EC) 1907/2006 (REACH).

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

- Regulation (EC) No 1272/2008 of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).
- 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).
- UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 6th rev.).

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, an SDS according to (EU) 2015/830 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.

Literature references are available upon request.

Elkem Microsilica[®] is a trademark of Elkem ASA.

Changes from revision 02 to 03: New corporate address. Paragraph 2 in section 16. Updated ACGIH values.

Changes from revision 03 to 04: generic e-mail address inserted, links updated, removed reference to DSD directive, removed legal disclaimer, inserted reference to (EU) 2015/830 and GHS.

Changes from revision 04 to 05: Microsilica L included