1. Identification of the Product and Supplier

Product name:	***Elkem Microsilica ®*** ***(all grades, including Silica 900)***
Product application:	Cementitious systems.
Address/Phone No.:	**Elkem ASA, Silicon Products** P.O. Box 334 Skøyen N-0213 Oslo, Norway Telephone: + 47 22 45 01 00 https://www.elkem.com/silicon-products/
Contact:	support.siliconproducts@elkem.com
Emergency Phone No.:	Chemtrec (800) 424-9300

2. Hazards Identification

Classification of the substance	The product does not meet the criteria for hazard classification in accordance with the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 9th rev.) and OSHA's HCS.
Hazard pictogram:	N/A (not applicable)
Signal word:	N/A (not applicable)
Hazard statements:	N/A (not applicable)
Precautionary statements:	N/A (not applicable)

The product is unlikely to cause harmful effects when handled and stored as advised. See section 7.

3. Composition/Information on Ingredients

Synonyms:	Silica fume, Amorphous silica (SiO_2), Silicon dioxide powder.
IUPAC-name:	Silicon dioxide
CAS No.:	69012-64-2
EINECS No.:	273-761-1
Reportable Ingredients:	None

The product may contain small amounts of crystalline quartz (< 0.5 %). The amount of respirable crystalline silica (quartz, cristobalite) in the product determined by X-ray diffraction is below 0.1 % and does not trigger any hazard classification.

The product meets the criteria as a nanoform in accordance with Commission Recommendation 2011/696/EU.

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, seek medical advice.
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. See section 8.
Storage:	Keep away from hydrofluoric acid (HF). Store in a dry place.

8. Exposure Controls/Personal Protection

Avoid inhalation of dust. Eye protection, eye flushing facilities and protective gloves are recommended. Ensure adequate ventilation. Wear N95 dust masks as respiratory protection (42 CFR 84, CAN/CSA Z94.4-2018) for dust exposure that may exceed exposure limits. If adequate ventilation is not possible, a self-contained breathing apparatus or an air supplied respirator is recommended.

Occupational Exposure Limits (ACGIH [1], 2016):

Substance	[CAS No.]	ACGIH TLV 8hr TWA ppm	8hr TWA mg/m³	15 minute STEL ppm	15 minute STEL mg/m³	Notations
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

The amount of respirable crystalline silica (quartz, cristobalite) in the product determined by X-ray diffraction is below 0.1 % and does not trigger any hazard classification.

9. Physical and Chemical Properties

Form:	Ultrafine amorphous powder (respirable dust) Dust forms agglomerates.
Color:	Grey, off-white
Odor:	Odorless
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/m³) approx.:	150-700
Specific surface (m^2/g):	15-30
Particle size, mean (µm):	≈ 0.15

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 SiO_2-modifications as cristobalite / tridymite which may cause pulmonary fibrosis (silicosis).

11. Toxicological Information

Acute effects:

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

Chronic effects:

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.

Endocrine disrupting properties:

The product is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU)2017/2100 or Commission Regulation (EU)2018/605.

12. Ecological Information

The product 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 the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 9th revision).

Endocrine disrupting properties: The product is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU)2017/2100 or Commission Regulation (EU)2018/605.

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. Transport Information

UN number:	not classified
UN proper shipping name:	not applicable
Transport hazard class:	not applicable
Packing group:	not applicable
Environmental hazard:	The product is not a marine pollutant.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): not classified

Special precautions: none

15. Regulatory Information

OSHA: This safety data sheet has been compiled in accordance with the revised Hazard Communication Standard (HCS 2012) and applies GHS classification criteria. Amorphous silica fume can be considered a nuisance dust and is as such outside the scope of the revised HCS (29 CFR 1910.1200 section (b)(6)(x)).

TSCA: The product is listed in the TSCA (Toxic Substance Control Act) Inventory (ID 51143, CAS # 69012-64-2).

CERCLA: (Comprehensive Response Compensation, and Liability Act): The product is not listed in 40 CFR 302.4.

RCRA: (Resource Conservation/Recovery Act): The product is not a listed hazardous waste.

SARA TITLE III: (Superfund Amendments and Reauthorization Act): 311/312 Hazard Categories: Immediate Health, Delayed Health. 313 Reportable Ingredients: None.

CALIFORNIA PROPOSITION 65: This product contains < 0.1 % Crystalline Silica (CAS# 14808-60-7), a chemical known to the state of California to cause cancer.

IARC: Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3).

US-NTP: The product is not listed in the 2011 Report on Carcinogens (RoC).

WHMIS: not classified.

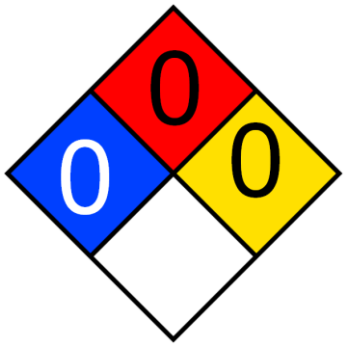
DSL Canada The substance is specified on the public Portion of the Domestic Substances List (identifier: 69012-64-2).

16. Other Information

According to Chapter 1.5.2 of the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS) safety data sheets (SDS) are only required for substances and mixtures that meet the harmonized criteria for physical, health or environmental hazards. This product does not meet these criteria.

HMIS III (Hazardous Materials Information System)

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	F (see section 8)



NFPA 704 (National Fire Protection Association)

HEALTH	0
FLAMMABILITY	0
INSTABILITY/REACTIVITY	0
SPECIAL NOTICE	

Legal Disclaimer:
The information given in this sheet is to the best of Elkem's 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

Elkem Microsilica ® is a trademark of Elkem ASA.

Revision 01: HMIS and NFPA information included.
Revision 02: Silica 900 included (section 1), updated ACGIH values (section 8).
Revision 03: ACGIH values updated (section 8), generic contact e-mail inserted (section 1).
Revision 04: company info in section 1 updated. Storage conditions revised.
Revision 05: company info; logo, email, website (section 1), assessment nanoform (3), EDC properties assessm
(11 & 12), GHS ref. updated 9th edition.