

## 1. Identification of the Product and Supplier

Product name:	<b>Microblock<sup>®</sup> HTC</b>
Product application:	Additive to oilfield cements.
Address/Phone No.:	<b>Elkem ASA, Silicon Products</b> P.O. Box 334 Skøyen N-0213 Oslo, Norway Telephone: + 47 22 45 01 00 Telefax: + 47 22 45 01 11
	<a href="https://www.elkem.com/silicon-products/">https://www.elkem.com/silicon-products/</a>
Contact person:	<a href="mailto:sds.esm@elkem.no">sds.esm@elkem.no</a>
REACH registration number:	Quartz is exempted from REACH registration in accordance with Regulation (EC) 1907/2006, Annex V.7 (natural mineral). Silica fume: 01-2119486866-17-0000
REACH and CLP helpdesk:	REACH and CLP website: <a href="https://echa.europa.eu/support/helpdesks/">https://echa.europa.eu/support/helpdesks/</a>
Emergency Phone No.:	not applicable for non-hazardous substances.

## 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, 9 <sup>th</sup> 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)


With reference to CLP article 6(1), hazard information shall relate to the forms or physical states in which the product is placed on the market and in which it can reasonably be expected to be used. Since this product is supplied as an aqueous dispersion, inhalation hazards originating from respirable crystalline silica (classified as STOT RE 1 for the silicosis hazard) do not apply.

For hazard assessment of the dry product see section 8.

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.

### 3. Composition/Information on Ingredients

IUPAC-name: Silicon dioxide

	composition		
	amorphous silica (SiO <sub>2</sub> , silica fume)	crystalline silica (SiO <sub>2</sub> , Quartz)	water
<b>Weight %</b>	max. 30	max. 50	min. 20
<b>CAS #</b>	69012-64-2	14808-60-7	
<b>EINECS #</b>	273-761-1	238-878-4	
<b>CLP</b>	<b>Hazard pictogram</b>		
	<b>Indication of danger</b>	Danger	
	<b>H-phrases</b>	H 372: Causes damage to lungs through prolonged or repeated exposure via inhalation.	
	<b>P-phrases</b>	P260: Do not breathe dust.	
P285: In case of inadequate ventilation wear respiratory protection.			
		P501: Dispose of contents/containers in accordance with local regulation.	
		respirable crystalline silica	

### 4. First Aid Measures

Inhalation: Not applicable. The product is an aqueous slurry.

Skin contact: Wash skin with water and/or a mild detergent.

Eye contact: Rinse eyes with water/saline solution. See a physician on persistent feeling of discomfort.

Ingestion: See a physician on persistent feeling of discomfort.

### 5. Firefighting Measures

Extinguishing media: Not applicable. Depending on surrounding fire.

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

### 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 CE-marked respiratory protection according to EN 149 FFP 2S/3S in areas of inadequate ventilation.



### Occupational Exposure Limits (ACGIH<sup>1</sup>, 2016):

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

<sup>1</sup>) American Conference of Governmental Industrial Hygienists

<sup>2</sup>) Particulates (Insoluble or Poorly Soluble) Not Otherwise Specified. Amorphous silica fume is considered to be PNOS. A specific TLV for the substance has not been established or has been withdrawn, respectively.

<sup>(I)</sup>) Inhalable fraction

<sup>(R)</sup>) Respirable fraction

For personal protection do not exceed the relevant national TLV in force.

Microblock® HTC slurry forms hard lumps when dried. The dustiness of dried-out product has been assessed according to EN15051 and is of no concern. The release of respirable crystalline silica from dried-out product is below the limit of detection.

The International Agency for Research on Cancer (IARC) has classified crystalline silica dust as a group 1 carcinogen (Monograph 100 C, 2009).

### B) Environmental exposure controls

#### Limit value for PM<sub>10</sub> and PM<sub>2.5</sub> (Directive 2008/50/EC):

	Averaging period	Limit value
PM <sub>10</sub>	One day	50 µg/m <sup>3</sup> ★
PM <sub>10</sub>	Calendar year	25 µg/m <sup>3</sup>
PM <sub>2.5</sub>	Calendar year	15 µg/m <sup>3</sup>

★Not to be exceeded more than 30 times a calendar year.

## 9. Physical and Chemical Properties

Form:	Slurry.
Colour:	Grey
Odour:	Odourless
Solubility:	Insoluble in water. Soluble in alkalis.
Solubility (Organic solvents):	Insoluble/slightly soluble.
Specific Gravity (water =1):	Typical 1.8
pH:	Typical 5-7
Particle size, mean ( $\mu\text{m}$ ):	$\approx 23$ (15 weight% of primary particles have a diameter $< 5\mu\text{m}$ )

## 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): Microblock® HTC additive reacts with hydrofluoric acid (HF) forming toxic gas ( $\text{SiF}_4$ ).

## 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, 9<sup>th</sup> rev.).

### Acute effects:

INGESTION:	Dust from dried-out product may cause irritation and dehydration of mucous membranes.
INHALATION:	Dust from dried-out product may cause irritation and dehydration of mucous membranes.
SKIN CONTACT:	Dust from dried-out product may cause irritation and dehydration.
EYE CONTACT:	Dust from dried-out product may cause irritation and dehydration.

### Chronic effects:

Microblock® HTC (slurry/wet): Not applicable.

Microblock® HTC (dried-out): Inhalation of respirable, dry matter from the product may cause a risk for lung fibrosis (silicosis), and chronic obstructive lung disease is suspected following long-term exposure (years) for concentrations of amorphous silica above recommended occupational exposure limits. For suspected lung cancer following exposure to respirable crystalline silica in workplace atmosphere, see section 8.

Endocrine disrupting properties: Available data for the product have been considered against the criteria laid down in Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605) and found not to apply.

## 12. Ecological Information

The product is not characterised as dangerous for the environment.

MOBILITY:	The product is 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 Directive Regulation (EC) 1272/2008 (CLP) and the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 9 <sup>th</sup> rev.).

Endocrine disrupting properties: Available data for the product have been considered against the criteria laid down in Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605) and found not to apply.

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## 13. Disposal Considerations

The product 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.

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## 14. Transport Information

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

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## 15. Regulatory Information

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) and subsequent amendments.
- 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 9<sup>th</sup> rev.).

All ingredients in Microblock® HTC are covered by the OSPAR List of Preparations Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment (PLONOR), 2003.

## 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 (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.

Microblock® HTC is a registered trademark owned by Elkem ASA.

Changes from revision 00 to 01: New corporate address. Paragraph 2 in section 16. Updated ACGIH values.

Changes from revision 01 to 02: generic e-mail address, reference to DSD removed, reference to (EU) 2015/830 inserted, ACGIH values updated, legal disclaimer removed.

Changes from revision 02 to 03: company name changed to Elkem ASA, reference to GHS 7<sup>th</sup> rev.

Changes from revision 03 to 04: company info (section 1) and limit values (section 8 B) updated.

Changes from revision 04 to 05: company logo, reference to GHS 9<sup>th</sup> rev., EDC assessment in section 2, 11, 12.