

MATERIAL SAFETY DATA SHEET

Date of formation / date of updating: 01.10.2003 / 01.03.2011

1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND IDENTIFICATION OF ENTERPRISE

1.1. IDENTIFICATION OF SUBSTANCE OR PREPARATION

SILIMIC

- dusty form: SILIMIC U – undensified; SILIMIC D – densified

Silica Fumes

CAS: 69012-64-2

EINECS: 273-761-1

PKWiU 20.59.57-50 – ready -made additives to cements, mortars and concretes

REACH : 01-2119486866-17-0013

1.2. Application of substance / preparation

Additive in the production of air - tight and durable concretes.

1.3. Identification of enterprise

Huta „Łaziska” S.A.
ul. Cieszyńska 23
43-170 Łaziska Górne

1.4. Emergency phone number

Phone: +48 (32) 3247102, +48 (32) 3247100

Fax: +48 (32) 2241523

2. IDENTIFICATION OF HAZARD

By observing the storage recommendations (point 7), the product does not present any hazard to the health and environment.

3. COMPOSITION / INFORMATION ON COMPONENTS

SiO₂ – min 85%, (typical 90%)

Fe₂O₃ - max 2,5 %,

CaO - max 1,0 %,

Al₂O₃ – max 1,5%

SILIMIC may contain small amounts of crystalline quartz (< 0,5%).

4. FIRST AID

Inhalation: The person who has inhaled the fume should be removed from the polluted area. Assure access to fresh air .

Contact with skin: Wash dirty skin with water containing a mild detergent.

Eyes: Rinse eyes with a water – and eye – wash solution. Contact a doctor in case of prolongation of irritation.

Deglutition: In case of deglutition rinse oral cavity and consume large amounts of fluids.

5. LINE OF CONDUCT IN CASE OF FIRE

Silimic is incombustible. There is no threat of explosion.

Extinguishing media: if the fume participates in the fire – cool with water or other generally accessible extinguishing media.

6. LINE OF CONDUCT IN CASE OF UNINTENDED LIBERATION INTO THE ENVIRONMENT

Avoid exposure to inhalation of fume. (See point 8)

Collect scattered material into containers. Further line of conduct see point 13.

7. LINE OF CONDUCT WITH SUBSTANCE / PREPARATION AND ITS STORAGE

7.1. Line of conduct with substance / preparation

Do not store substance in the vicinity of hydrofluoric acid (HF).

Avoid operations causing liberation of fume (See point 8)

7.2. Storage

SILIMIC should be stored in packages of the manufacturer in store – rooms or closed containers.

INFORMATION ON SAFETY

8. INSPECTION OF EXPOSURE AND MEANS OF INDIVIDUAL PROTECTION

According to the Decree of the Minister of Labour and Social Policy from the 29th November 2002 in the matter of the highest permissible concentrations and intensities of agents, which are harmful to the health in the place of employment, Journal of Law No. 217, pos. 1833 NDS – 10 [mg/m³] – total dust; other non – toxic industrial dusts, including those, which contain free (crystalline) silica below 2%.

- a) Protection of airways
use dust - masks
- b) Protection of hands
use protective gloves
- c) Protection of eyes
cover eyes and rinse with water jet, if necessary

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance: Very fine amorphous dust - may form larger particles / agglomerates

Color: - grey

Odour: - none

9.2. Important information concerning the health, safety and environment

Melting point (°C):	- 1550 - 1570
Solubility (in water):	- insoluble / sparingly soluble
Solubility (organic solvents):	- insoluble / sparingly soluble
Specific gravity (water=1):	- 2,2 – 2,3
Weight by volume (kg/m ³):	- from 150
Specific surface (m ² /g)	- 15 - 35
Contents of particles above 0,045mm	- max - 1,40%

10. STABILITY AND REACTIVITY

10.1. Conditions to be avoided

Heating of dust up to a temperature above 500°C may cause formation of crystalline SiO₂ modification

10.2. Factors to be avoided

SILIMIC reacts with the hydrofluoric acid (HF) creating a toxic gas (SiF₄).

10.3. Dangerous desintegration products

SILIMIC reacts with the hydrofluoric acid (HF) creating a toxic gas (SiF₄).

11. TOXICOLOGICAL INFORMATION

Sudden effects:

- Deglutition: The dust may cause irritation and have a dehydrating effect on the mucous membranes.
- Inhalation: The dust may cause irritation and have a dehydrating effect on the mucous membranes..
- Contact with skin: The dust may cause irritation and have a dehydrating effect.
- Contact with eyes: The dust may cause irritation and have a dehydrating effect.

Durable effects:

SILIMIC may contain small amounts of crystalline silica (<0,5%).

It is considered that prolonged exposure lasting for years to SILIMIC at concentrations exceeding NDS will create the possibility for the generation of a chronic lung disease.

12. ECOLOGICAL INFORMATION – IMPACT ON ENVIRONMENT

- SILIMIC is not characterized as harmful for the environment.
- Mobility: Under normal environmental conditions little mobility.
- Decomposition ability: No decomposition.
- Biological accumulation: Does not undergo biological accumulation.
- Ecological toxicity: The test (MICROTOX TM) with coarser fractions of dust has not shown any toxic effects with the tested organisms.

13. LINE OF CONDUCT WITH DISCARDS

The product should be recycled for repeated use if possible.

The remains of the SILMIC product must be deposited in agreement with the local authorities.

14. INFORMATION ON THE TRANSPORT

SILIMIC should be transported under a cover and stored in dry places under a roof.

UN -----

IMDG/IMO - does not require classification

ADR/RID - does not require classification

ICAO/IATA - does not require classification

15. INFORMATION ON LEGAL RULES

Regulation of the Minister of Health from the 13th November 2007 on the card of characteristic features (Journal of Law 2007, No. 215, pos. 1588).

Regulation (WE) No. 1907/2006 of the European Parliament and Council from the 18th December 2006.

Regulation of the Minister of Labour and Social Policy from the 29th November 2002 on the highest permissible concentrations and intensities of harmful agents to the health at the work place (Journal of Law No. 217, pos. 1833).

Statute from the 27th April 2001 on discards (Journal of Law No. 62 pos. 628 with later amendments).

Statute from the 27th April 2001 Law on Environmental Protection (Journal of Law No. 62 pos. 627 with later amendments).

Regulation of the Minister of Health from the 28th September 2005 on the list of dangerous substances together with their classification and marking (Journal of Law 05 No. 201 pos. 1674).

Regulation of the Minister of Health from the 2nd September 2003 on the criteria and method of classification of chemical substances (Journal of Law 2003 No. 171 pos. 1666 with later amendments).

16. OTHER INFORMATION

The present card is the property of the Huta "Łaziska" S.A. and gives a description of the product of Huta. SILIMIC is not on the list of dangerous chemical substances. The card has been elaborated on the basis of the document entitled. "Data on the health, safety and environment" of the Company Elkem ASA, Materials Norway.