

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 slurry

Water – and dust suspension

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 THREATS

By observing the storage recommendations (point 7), the product does not present any threats 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%

Content of dry parts (by weight) – 50% ± 2% pH 4,5 – 5,5

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

4. FIRST AID

Inhalation: The person who, has inhaled the dust remaining after drying the water – and dust suspension, 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. The dust remaining after drying the slurry does not constitute any 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

The spilled material should be collected in containers. Further proceedings, see point 13.

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

7.1. Line of conduct with substance / preparation

If the slurry dries up, avoid operations, which cause liberation of remaining dust (see point 8)
Do not store in the vicinity of hydrofluoric acid (HF).

7.2. Storage

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

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
If the slurry gets dried up, avoid exposure to inhalation of remaining dust.
- 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: Water – and – dust suspension
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):	- ~ 1,4
pH:	- 4,5 - 5,5
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
Do not keep at temperatures ≤ 0°C

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 remaining after drying of the material SILIMIC slurry may cause irritation and have a dehydrating effect on the mucous membranes.
Inhalation: The dust remaining after drying of the material SILIMIC slurry may cause irritation and have a dehydrating effect on the mucous membranes.
Contact with skin: The SILIMIC slurry may cause irritation and have a dehydrating effect on the mucous membranes.
Contact with eyes: The SILIMIC slurry may cause irritation and have a dehydrating effect.

Durable effects:

The dust remaining after drying of the material SILIMIC slurry, may contain small amounts of crystalline silica (<0,5%).

It is considered that a lasting for years exposure after drying of the material SILIMIC slurry at concentrations over NDS will create the possibility for the of generation a chronic lung disease.

12. ECOLOGICAL INFORMATION

SILIMIC slurry is not characterized as harmful for the environment.

Mobility: Under normal environmental conditions - no mobility.

Decomposition ability: Does not decompose.

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 SILIMIC slurry product must be deposited in agreement with the local authorities.

14. INFORMATION ON THE TRANSPORT

SILIMIC slurry should be stored and transported in containers making its effluent impossible.

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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 characteristics (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 for 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 Healthy 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. Steel – Works "Łaziska" Joint Stock Company and gives a description of the product of Steel – Works. SILIMIC is not on the 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.