

MUOVITERM

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MATERIAL SAFETY DATA SHEET

(Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 REACH)

1. Identification of the substance and of the company.

1.1. Identification of the substance.

Commercial product name: MuoviTerm

1.2. Application.

MuoviTerm is a hydraulically-setting dry blend specially developed for bedding in geothermal probes

1.3. Company.

HEKOBENTONITY Sp. z o.o.
KORZENIÓW 42A , 39-203 NAGOSZYN
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1.4. Emergency information: +48 14 681 89 62

2. Hazards identification.

Classification of the substance or mixture

Threats	Classification compatible with Regulation nr 1272/2008 (CLP)
from physical features :	unclassified
to human:	Causes skin irritation (Xi, H315) Causes serious eye irritation (Xi, H319) May cause respiratory irritation(Xi, H 335)
to environment :	unclassified

Marking elements:

Symbol, warnings sign: Xi , Irritant product



Hazards statements:

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary Statements

P102 Keep out of reach of children.

P260 Do not breathe dust/fumes/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection

P262 Do not get in eyes, on skin, or on clothing.

P301+P315 IF SWALLOWED: Get immediate medical advice/attention.

P304+P315 IF INHALED: Get immediate medical advice/attention.

P305+P315 IF IN EYES: Get immediate medical advice/attention.

Other hazards:

Avoid inhalation of product dust, non toxic product. Product forms slippery surface when combined with water.

3. Composition/ Information of ingredients.

Substance	CAS-Number	Percentage	Classification compatible with Directive 67/548/EWG		Classification compatible with Regulation nr 1272/2008 (CLP)	
			Threats symbol	Phrase R	Threats class	Phrase H
Silica, crystalline, Cristobalite	14808-60-7	1-2%	Xn	R48/20	STOT RE 2	H373
Portland cement clinker	65997-15-1	< 20%	Xi	R37 R41 R43	STOT SE 3 Skin irrit. 2 Eye dam. 1 Skin sens. 1	H335 H315 H318 H317

4. First aid measures.

Inhalation:

Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen. Get medical attention if any discomfort continues

Skin:

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing..

Eyes:

Do not rub eyes dry, because the mechanical stress can cause additional corneal injury. Also, remove contact lenses and immediately irrigate the eye under running water, holding the eyelid open, for at least 45 minutes to remove all particles. If possible, use an isotonic eye wash (0.9% NaCl). Always consult an occupational physician or ophthalmologist.

Ingestion:

When being conscious, rinse out the month and drink a lot of water. Do not cause vomiting and contact a doctor or Poison Control

Center.

Medical advice:

Seek medical advice if in discomfort.

5. Fire-Fighting measures.

Extinguishing media:

Water spray, dry powder, foam.

Extinguishing media to avoid:

Not known

Special exposure hazard in fire:

Product forms slippery surface when combined with water.

Special protective equipment for fire fighters:

None.

6. Accidental release.

Personal precautions:

Do not breathe dust. Avoid creating dust and aerosols. Local exhaust ventilation required. Use appropriate protective equipment (see MSDS Section 8).

Environmental precautions :

Avoid uncontrolled entry of the preparation into sewage water system, surface water or ground water. Avoid drop into the environment.

Cleaning methods /disposal :

Collect the spilled MuoviTerm, dry when possible.

Dry MuoviTerm :

For cleanup, use dry methods where possible that do not generate dust, such as an industrial vacuum cleaner with a suitable filter, or wet the MuoviTerm and remove as for wet MuoviTerm. If dust is generated during dry cleanup, personal protection equipment must be used.

Wet MuoviTerm :

Collect wet MuoviTerm mechanically, allow to harden on a film underlay or in a container and dispose of as described under section 13.

Additional advice:

Avoid dust formation

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7. Handling and storage.

Handling:

Avoid creating dust and aerosols. Local exhaust ventilation required. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense dust may collect. Avoid skin and eye contact. Wash hands before eating and working. Do not smoke.

Storage:

Keep container tightly closed and in dry area. Packaged products must be kept in unopened bags on the floor, under cool, dry conditions and not subjected to strong drafts to avoid loss of quality. Bags must be stored in a sturdy manner

8. Personal protection.

EXPOSURE GUIDELINES

Substance	Std.	TWA- 8 hrs	STEL
QUARTZ, CRYSTALLINE SILICA	WEL	4 mg/m ³ (Total dust)	1mg/m ³ (Respirable dust)
Portland cement clinker	WEL	6 mg/m ³ (Total dust)	2 mg/m ³ (Respirable dust)

WEL = Workplace Exposure Limit.

Personal protective equipment:

Respiratory protection

Dust mask in case of inadequate ventilation.

Hand protection

Protective gloves.

Eye protection

Safety goggles.

Skin and body protection

No Special requirements, regular uniform.

9. Physical and Chemicals properties.

- form: **powder**
- colour: **gray-beige**
- odour: **n.a.**
- pH: **9 -13**
- Bulk density: **1,2 – 1,4 g/cm³**
- Mean particle size: **< 1mm**
- boiling temp: **n.a.**
- melting temp: **over 1000 °C**
- flash point: **n.a.**
- ignition temperature: **n.a.**
- auto flammability: **non-inflammable.**
- explosive properties: **n.a.**
- vapour pressure: **n.a.**
- bulk density: **n.a.**
- water solubility: **insoluble**
- viscosity: **see technical data**
- fire number: **n.a**
- oxidizing properties: **n.a**

10. Stability and reactivity.

Reactivity:

Product is not reactive.

Stability:

Product stable in recommended storage conditions. Product is hygroscopic.

Materials to avoid:

None known.

Conditions to avoid:

Avoid water contact during storage.

Information about decomposition:

No decompositions if stored and applied as directed.

11. Toxicological information.

Acute oral toxicity:

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Crystalline silica: LD50: 500mg/kg (orally, rat)
Bentonite. LD50: 35mg/kg (intravenously, rat)
Portland cement clinker: LCO: 1 mg/l (4h, rat)

Skin:

Dry MuoviTerm in contact with moist skin or skin in contact with moist or wet MuoviTerm can lead to various irritative skin reactions.

Eyes:

Direct contact can cause corneal damage, both due to mechanical effect and an immediate or subsequent irritation or inflammation.

Inhalation:

Exposure to MuoviTerm dust can irritate the respiratory tract (throat, neck, lungs). Coughing, sneezing and shortness of breath can result if the exposure is above the workplace limit value.

Ingestion:

Low toxic product.

12. Ecological information.

Toxicity

Water environment / solid / Land environment:

Bentonite: LC50: 19000mg/l (96h, fish, *Oncorhynchus mykiss*)

Degradability: Mineral origin product. The organic part of the product is not biologically degradable.

Bioaccumulative: Bioconcentration factor (BCF): no data.

13. Disposal considerations.

Recommendation:

Do not remove into drains. Dispose in accordance with local standards. Contact waste disposal services.

Wet product and product slurries

Allow wet product and product slurries to harden fully and do not release into the sewer system or bodies of water.

Product that has hardened after addition of water

Dispose of according to local laws and official guidelines. Do not release into the sewer system. Disposal of the fully hardened product, such as concrete waste and concrete slurry.

Contaminated packaging:

Empty packaging completely and recycle.

14. Transport information.

Land transport: Not classified as dangerous in the meaning of transport regulations.

Sea transport: Not classified as dangerous in the meaning of transport regulations.

Air transport: Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information.

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

Regulation (EC) No 453/2010 of 20 May 2010 amending 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)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC also amending Directives (EC) no 1907/2006

Act of 25th February 2011 on chemical substances and mixture (Polish Official Journal of Laws 2011, No 63 item 322).

Act of 24th August 1991, on fire protection (Polish Official Journal of Laws 2009, No 178 item 1380)

Act of 28th October 2002 on transportation dangerous materials (Polish Official Journal 2002, No 199 item 1671).

Decree of the Minister of Health of 20th April 2012 on labeling of hazardous substances and mixtures, and certain mixtures (Polish Official Journal of Laws from 2012 No. 0 item 445).

Decree of the Minister of Health of 30th December 2004 on the criteria and ways of classification of chemical substances and preparations (Polish Official Journal of Laws from 2005 No. 11 item 86).

Decree of the Minister of Health of 2th February 2011 in the test and measurement of harmful factors in the work environment (Polish Official Journal of Laws from 2011 No. 33 item 166).

Decree of the Minister of Labour and Social Policy of 26th September 1997 on general rules health and safety (Polish Official. Journal of Laws 2008 no. 108 item 690).

Decree of the Minister of Economy of 21th December 2005 on the basic requirements for plant protection individual (Polish Official. Journal of Laws 2005 no. 259 item 2173).

16. Other information.

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Abbreviations and acronyms used in the safety data sheet:

N.A. = Not Applicable

N.D. = No Data available

LC50 Lethal Concentration of the chemical that kills 50% of the test animals.

LD50 Lethal Dose is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals

TWA time-weighted average

STEL [short-term exposure limits](#)

Hazard Statements

H318: Causes serious eye damage

H317: May cause an allergic skin reaction

H373: May cause damage to organs through prolonged or repeated exposure

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