



MATERIAL SAFETY DATA SHEET

Product name: **Mineral wool insulation ropes »Insu-Rope«**

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Date of issue: February, 2013

1. IDENTIFICATION OF THE PRODUCT AND SUPPLIER:

- 1.1. Identification of the product: **Mineral wool insulation ropes »Insu-Rope«**
- 1.2. Manufacturer: EZS d.o.o., Brezje pri Grosupljem 10, 1290 Grosuplje
- 1.3. Emergency telephone: +386 (0)1 530 21 54

2. COMPOSITION:

- 2.1. Mineral wool: Vitreous silicate fibers produced under process conditions (as stone wool in a concentration of 96-100 % (weight) with or without duromere synthetic resins and with or without the addition of mineral oil.

INDEX-No.: 650-016-00-2 (mineral fibers)
EINECS-No.: Not applicable.
CAS-No.: Not applicable.
CLASSIFICATION: /
Risk phrases: /

2.2. Glass fibre rowing:

2.2.1. Glass fibre:	SiO ₂	54,00 %
	B ₂ O ₃	7,00 %
	R ₂ O ₃ (Al ₂ O ₃ + F ₂ O ₃)	14,60 %
	RO (CaO + MgO)	22,00 %
	R ₂ O	max. 1,00 %



- 2.2.2. Surface treatment: max. 0,70 %
Ingredients: cca. 97,00 % water
cca. 3,00 % metacrylsilan based polyester and epoxy dispersion

3. HAZARD IDENTIFICATION:

- 3.1. Health and environment hazards: /
- 3.2. The product is not dangerous for health and environment according to 67/548/EEC directive

4. FIRST AID MEASURES:

- 4.1. Inhalation: Try to cough up, rinse with water.
- 4.2. Skin contact: Wash thoroughly with water or soapy water. In case of allergy consult your physician.
- 4.3. Eye contact: Treat in the same way as any foreign body in the eye. Don't rub your eyes and irrigate copiously with clean, fresh water. In case of permanent pain, seek the medical assistance.
- 4.4. Ingestion: Not applicable; in case of sickness, induce vomiting.
- 4.5. References for the doctor: Filament diameter, concentration of fibres during contact.
- 4.6. Availability of the first-aid means to provide immediate treatment at the work place: drinking water, aid for disinfection, substance for rinsing of eyes, regenerate skin cream

5. FIRE-FIGHTING MEASURES:

- 5.1. Suitable extinguishing media: Mineral fibers and glass thread are incombustible. At temperatures above 500 °C the binder contained in the product starts to burn. Extinguish by using common extinguishing methods.
- 5.2. Unsuitable extinguishing media: Not applicable.
- 5.3. Special hazards jeopardizing persons, involved in firefighting activities: Not applicable.



5.4. Special protective equipment for firemen: Not applicable

6. ACCIDENTAL RELEASE MEASURES:

6.1. Personal protective measures: In case of high dust levels in the working environment use the protective equipment described in section 8.

6.2. Measures to protect the environment: Not applicable.

6.3. Cleaning measures after accidental releases: Clean with an industrial vacuum cleaner.

7. HANDLING AND STORAGE:

7.1. Handling: Factory-packed insulation material should only be unpacked on site where it is being used. Do not sweep up spilled dust or blow it away with compressed air. Clean with an industrial vacuum cleaner. Provide the necessary ventilation on the building site. Carefully remove old insulation material. Use tools that do not rise so much dust.

7.2. Storage: Insulation material should be stored in a roofed, dry warehouse.

8. EXPOSURE CONTROL / PERSONAL PROTECTION:

8.1. Maximum workplace concentrations: 500.000 fibers/m³ (MAK Values according to TRGS 900)

8.2. Respiratory protection: Use P2 breathing-protection masks particularly in areas with high dust levels (e.g. when removing insulation material exposed to high temperatures or in tight, poorly ventilated rooms).

8.3. Hand protection: Wear protective gloves.

8.4. Eyes protection: In areas with high dust concentrations and when completing work above head height, use tight-fitting protective goggles.

8.5. Protective clothing: Wear loose-fitting, buttoned work clothing, not irritating to the skin. In case of sensitive skin use greasy protective face cream.

General protection and hygienically measures are recommended.



9. PHYSICAL AND CHEMICAL PROPERTIES:

9.1. Mineral wool:

- 9.1.1. Appearance: Yellow-grey material in solid physical state.
- 9.1.2. Odour: n.a.
- 9.1.3. pH (at 100 g/l H₂O): 7-8 (at 25°C)
- 9.1.4. Boiling temperature/range: Not applicable.
- 9.1.5. Melting point/range: 800-1100 °C (mineral fibers)
- 9.1.6. Inflammability: In view of the required European tests:
EN ISO 1182 (incombustibility test in a conical furnace),
EN ISO 1716 (calorimetric test)
EN 13823 (SBI test -single burning item)
According to Euroclasses (classes of reaction to fire), the
Insu-Rope product has been attributed to Euroclass A1.
This means that Insu-Rope has been classified as
incombustible.
- 9.1.7. Flash point: Not applicable.
- 9.1.8. Ignitability: Not applicable.
- 9.1.9. Self-ignitability: Not applicable.
- 9.1.10. Explosive properties: The material has no explosive properties.
- 9.1.11. Oxidation properties: The material has no oxidation properties.
- 9.1.12. Relative density: Various, depending on type of product diameter (240 +/- 20
kg/m³)
- 9.1.13. Solubility: in water Not applicable.
 In fat Not applicable.



9.2. Glass fibre rowing:

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|------------------------------|---|
| 9.2.1. Form: | Solid |
| 9.2.2. Colour: | White |
| 9.2.3. Design: | Endless glass fiber, elementary diameter 13 μm , cylindrical shape bobbin with max. weight of 15 kgs |
| 9.2.4. Melting point: | cca. 1250 – 1600 °C |
| 9.2.5. Littleton point: | cca. 825 – 855 °C |
| 9.2.6. Density: | 2,59 g/m ³ |
| 9.2.7. Inflammable: | No |
| 9.2.8. Danger of explosion: | No |
| 9.2.9. Oxidizing properties: | No |

10. STABILITY AND REACTIVITY:

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| 10.1. Thermal decomposition: | Formation of gases (unbound, free components of Duromere binder) in small ppm concentrations at first temperature increase above 200 °C. Full decomposition of binder at temperatures above 500 °C. |
| 10.2. Dangerous reactions: | None |
| 10.3. Dangerous decomposition products: | None |

11. TOXICOLOGICAL INFORMATION:

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| 11.1. Acute oral toxicity: | Not applicable. |
| 11.2. Acute dermal toxicity: | Not applicable. |
| 11.3. Skin sensitivity: | Not irritant. |
| 11.4. Eyes sensitivity: | Not irritant. |
| 11.5. Effects after a long standing exposure: | Not applicable. |
| 11.6. Knowledge from practical application: | If properly used, no effects detrimental to health could be noticed during the observations up to the present. |



12. ECOLOGICAL INFORMATION:

Insu-Rope products have no known dangerous impact on the environment.

13. DISPOSAL CONSIDERATIONS:

- 13.1. Product: Waste material should be disposed of in accordance with Rules on the management of waste (Official gazette of the RS, Nos. 84/98, 45/00, 20/01, 13/03) and Regulation on the landfill of waste (Ur. l. RS, št.32/06).
- 13.2. Recycling of waste materials: Waste mineral wool can be recycled by the manufacturer.
- 13.3. Packaging of waste materials: Packaging of waste material should be disposed of in accordance with Rules on the management of waste (Official gazette of the RS, Nos. 84/98, 45/00, 20/01, 13/03). Packaging material can be recycled.

14. TRANSPORT INFORMATION:

- 14.1. Special precautions are not needed. Transport in covered means of transport.
- 14.2. Dispatch units – products are packed in PE bags and stacked onto palletts.

15. REGULATORY INFORMATION:

- 15.1. EEC classification: Not classified.
- 15.2. Danger symbols: Not required.
- 15.3. R-records: Not required.
- 15.4. S-records: Not required.

According to EU Directives, designation of bonded (polymerised) mineral wool products is not mandatory.