

SAFETY DATA SHEET

MISAPOR

According to 1907/2006/EC, Article 31

Print: 01.02.2018

Revision: 01.02.2018

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

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|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1. Product identifier: | MISAPOR® Cellular glass loose fill |
| 1.2. Relevant identified uses of the substance: | Loose fill insulating material for use as insulation towards ground, for drainage and insulating layer as well as for light weight fill material for roads and dams. |
| 1.3. Details of the supplier of the safety data sheet: | MISAPOR AG, Rossriedstrasse 2, CH-7205 Zizers
Phone +41 81 300 08 08, Fax +41 81 300 08 09
Mail: info@misapor.com , Homepage: www.misapor.com |
| 1.4. Emergency telephone number: | Phone : +41 81 300 08 08 (08:00 – 12:00, 13:00 – 17:30) |

Further indication:

MISAPOR® Cellular glass gravel is an article (product) according Regulation 1907/2006/EC, therefor a safety data sheet is not requested. This safety data sheet is prepared according article 31, 1907/200/EC for information purpose.

SECTION 2: Hazards identification

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|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1. Classification of the substance or mixture: | Cellular glass gravel is an article (product) and does not require obligations of classification and labelling according Regulation 67/548/EEC or Regulation 1999/45/EC or Regulation (EC) No. 1272/2008 (CLP). |
| 2.2. Label elements: | Labelling according EEC-Regulations, Regulation (EC) No. 1272/2008: Cellular glass gravel is an article (product) and therefor does not require obligations of classification and labelling. |
| 2.3. Other hazards
In use: | Exposition to dust when in use with methods where respirable dust could be set free. |

SECTION 3: Composition/information on ingredients

MISAPOR® Cellular glass gravel is an article (product) according Regulation 1907/2006/EC

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|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.2. Chemical characteristic | Cellular glass made of recycling glass (soda-lime-silicate glass) (CAS 65997-17-3 / EINECS 266-046-0) as fragmented glass, manufactured by using a mineralic activator. No dangerous substances. |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

SECTION 4: First aid measures

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|-----------------------------------------------|------------------------------------------------------------------------------------|
| 4.1. Description of first aid measures | |
| Inhalation: | Depart from the endangered area, lead in fresh air, possibly drink water. |
| Skin contact: | Wash off with soap and water. |
| Eye contact: | Rinse immediately with plenty of water, also under the eyelids, for a few minutes. |

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Swallow: Cough cellular glass gravel out, rinse with water.

4.2. Most important symptoms and effects, both acute and delayed:

No known effects.

4.3. Indication of any immediate medical attention and special treatment needed:

Consult a physician if necessary. In case of remaining eye irritation, a specialist doctor is to be consulted.

SECTION 5: Firefighting measures

- 5.1. Extinguishing media:** MISAPOR® Cellular glass gravel itself does not burn and is compatible with all extinguishing media.
- 5.2. Special hazards arising from the substance or mixture:** not applicable
- 5.3. Advice for firefighters:** Wear self-contained breathing apparatus for fire fighting if necessary, avoid breathing the dust.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures:** See also section 8. Wear personal protective equipment. Avoid dust formation, skin and eye contact.
- 6.2. Environmental precautions:** No risk potential.
- 6.3. Methods and material for containment and cleaning up:** Absorb fine dust with a Hoover, coarse material clean with a spade without dust formation, clean area with water.
- 6.4. Reference to other sections:**
- | | |
|-------------------------------------|----------------|
| Information for safe handling | see chapter 7 |
| Information for personal protection | see chapter 8 |
| Information for disposal | see chapter 13 |

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling:** During handling setting free of dust has to be avoided and good ventilation has to be arranged.
- 7.2. Conditions for safe storage, including any incompatibilities:** Special storage conditions are not required.
- 7.3. Specific end use(s):** Thermal insulation, light weight filling, professional application.

SECTION 8: Exposure controls/personal protection

Additional information for design of technical installations: only handle with adequate ventilation.

8.1. Control parameters:

Limit values for dust according TRGS 900 (Germany) und SUVA List (Switzerland) have to be respected:
MAK = 3mg/m³ (alveolar dust)
MAK=10 mg/m³ (respirable dust)
When exceeding use inhalation protection.

8.2. Exposure controls**Personal protection****General:**

Respect general measures for protection and hygiene. Shower and eye shower should be available. Separation of traffic and professional clothing, wash professional cloth regularly.

Respiratory protection:

Use dust mask in case of dust formation / exceeding limit values for dust.

Hand protection:

Hand gloves are recommended. Standard working gloves are sufficient.

Eye protection:

Wearing of an eye protection is recommended.

Limitation and monitoring of the environmental exposition:

Not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties**Appearance:****Form:**

pore-rich solids

Colour:

grey

Smell:

none

Smell limit:

not applicable

pH value:

In delivery state not applicable, in aqueous suspension ~ 6-8 at 20°C

State transformation**Melting point/Freezing point:**

Phase transition above 540°C from solid to viscous

Boiling start/range:

not applicable

Inflammation point:

not applicable

Speed of evaporation:

not applicable

Flammability (solid, gas formation):

not applicable

Upper/lower limit of explosion:

not applicable

Vapour pressure:

not applicable

Vapour density:

not applicable

Raw density:

120 - 190 m³ (Typ Standard)

Solubilities:

Negligible water solubility, soluble in hydrofluoric acid (HF)

Distribution coefficient:

not applicable

Temperature of autoinflammation:

not applicable

Temperature of state modification:

See melting point

Viscosity:

not applicable

Explosive properties:

Not explosive (based on chemical composition)

Oxidizing properties:

Not oxidable (based on chemical composition)

9.2. Other information

No further remarks.

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SECTION 10: Stability and reactivity

MISAPOR® Cellular glass gravel is stable and resistant against environmental expositions.

10.1. Reactivity:	no data
10.2. Chemical stability:	no data
10.3. Possibility of hazardous reactions:	None known
10.4. Conditions to avoid:	None known
10.5. Incompatible materials:	None known
10.6. Hazardous decomposition products:	None known

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on toxicological effects of cellular glass gravel:

In direct contact with cellular glass gravel no negative effects on health are expected.

Information on toxicological effects if in use dust can be set free

(Limit values for dust formation see chapter 8):

Acute Toxicity:	The dust is not acute toxic.
Chronicle Toxicity (Inhalation):	Continuous contact with respirable dust of the product in high concentration may harm the lung functions.
Irritation effect:	After longer eye and skin contact, as well as after longer and repeated inhalation of dust, irritations cannot be excluded.
Sensitizing effects:	No sensitizing effect known.
CMR properties (Carcinogenicity, Mutagenity, Reproduction toxicity):	No CMR properties known. No formation of fibrous particles takes place in the production process of cellular glass gravel.

SECTION 12: Ecological information

12.1. Toxicity:	Negative ecologic impacts of MISAPOR® cellular glass gravel are not known.
12.2. Persistence and degradability:	Anorganc, hence not degradable.
12.3. Bioaccumulative potential:	No data available for the product.
12.4. Mobility in soil:	None
12.5. Results of PBT and vPvB assessment:	No data
12.6. Other adverse effects:	No data

SECTION 13: Disposal considerations

13.1. Waste treatment methods:

Recommendation for disposal:	Disposal is not dangerous. Remaining amounts of MISAPOR® cellular glass gravel can be reused or be disposed as land fill material.
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Waste key number:	Waste key numbers shall be emitted by the consumer, best in accordance with the authority in charge for waste disposal.
Disposal of packaging:	Packaging material can eventually be re-used.

SECTION 14: Transport information

MISAPOR® Cellular glass gravel has not to conform to the transport-regulation for dangerous goods according ADR, ADN, IMDG und IATA.

14.1. UN number:	Not applicable
14.2. UN proper shipping name:	Not applicable
14.3. Transport hazard class(es):	Not applicable
14.4. Packing group:	Not applicable
14.5. Environmental hazards:	Not applicable
14.6. Special precautions for user:	Not applicable
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture	No further relevant information available.
15.2. Chemical safety assessment:	The product is an article. Therefor a REACH registration and substance safety assessment is not required.

SECTION 16: Other information

All stated information in this document are based on latest state of knowledge in regards of safety relevant aspects according regulation (EC) 1907/2006/EC (REACH regulation).

They do not warren any product property nor build the base of any legal relationship, but describe the product only in respect of its technical safety relevant requirements. All data are meant exclusively for information purpose. In case of problems in handling and using MISAPOR® cellular glass gravel, the company MISAPOR AG can't assume any liability.

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All information was carefully assessed and accomplished to the best of available knowledge, however, all information remains without guarantee.