Safe Use Instruction Sheet

In Consideration of Commission Regulation (EU) 2015/830. Safety data sheets are mandatory only for dangerous substances and mixtures. Mineral wool MIW-S is NOT dangerous.

Trade name:	Mineral wool MIW-S
Created on:	16.01.2019
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Number of pages:	7

1. Identification of the substance/mixture and the company

1.1 Product identifier

Trade name: Mineral wool MIW-S Type: MIW-S Item number: 7202306

1.2 Relevant identified uses of the substance or mixture and uses advised against Recommended use: Thermal, acoustic and/or fire insulation.

1.3 Details on the supplier providing the safety data sheet

Manufacturer/supplier

OBO Bettermann Holding GmbH & Co. KG P.O. Box 1120 58694 Menden Germany

Division providing information Customer Service Tel.: +49 (0)2373 89-1700 E-mail: export@obo.de

1.4 Emergency telephone number

REACH Registration of Chemicals GmbH Tel.: +49 (0)700 2411 2112 (OBO)

2. Hazards identification

2.1 Classification of the substance or mixture

No hazards are associated with ISOVER ULTIMATE Mineral Wool.

Nevertheless, please observe the information given in this safe use instructions sheet.

2.2 Label elements

According to Regulation (EC) No 1272/2008 no hazard labelling is required.

2.3 Other hazards

Dust:

Mineral wool products may cause temporary skin itching due to the wellknown mechanical effect of coarse fibers. For the handling of mineral wool MIW-S we recommend to follow the instructions of sections 7 + 8.

3. Composition / information on ingredients

Chemical identity

Substance	C.A.S. Number (EC-Number)	REACH Reg.Nr.:	Amount weight (%)	Classification and labelling (Regulation (EG) 1272/2008)
Man-made vit- reous (silicate) fibers with ran- dom orientation with alkaline and alkali earth oxides (Na2O+K2O+ CaO+MgO+BaO) content greater than 18% by weight and fulfilling one of the Nota Q conditions. *	- (926-099-9)	01-2119472313-44- 0035	90 - 100 %	Not classified
Terpolymer binder	-		0 - 5 %	Not classified
Thermosetting polymer on basis of saccarides	-		0 - 5 %	Not classified
Mineraloil	-		0 - 0,5 %	Not classified

* Mineral wool MIW-S (ISOVER ULTIMATE mineral wool) is also exonerated from German laws Chemikalienverbotsverordnung (Annex I, chapter 23) and Gefahrstoffverordnung (Annex II, Nr.5). Dependent on application mineral wool MIW-S may contain small quantities of water-repellent additives, coupling agent, adhesive and / or facing.

4. First aid measures

4.1 Description of first aid measures

In case of inhalation

Remove from exposure and provide for fresh air. Rinse throat and blow nose to clear dust.

In case of skin contact

Wash skin gently with cold water and soap.

In case of eye contact

Do not rub eyes, rinse gently and abundantly with water, if necessary, call on medical advice.

In case of ingestion

Drink plenty of water.

If first aid measures don't produce relief or discomfort continues, call on medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Mineral wool products may cause temporary itching on skin, eyes or mouth due to the well- known mechanical effect of coarse fibers.

4.3 Indication of any immediate medical attention and special treatment needed

None required. If first aid measures don't produce relief or discomfort continues, call on medical advice.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, foam, carbon dioxide (CO2) and dry powder

Unsuitable extinguishing agents for safety reasons None.

5.2 Special hazards arising from the substance or mixture None.

5.3 Advice for firefighters

The unfaced products are non-combustible, some facings may however be combustible. The packaging materials are combustible. In large fires adapt the respiratory protection / breathing apparatus to the surroundings.

6. Measures in the case of unintentional release

6.1 Personal precautions, protective equipment and emergency procedures

In case of high concentrations of dust, use the personal protective equipment as mentioned in section 8.

6.2 Environmental protection measures

None.

6.3 Methods and material for retention and cleaning

Put bigger pieces in suitable plastic bags by hand. For small quantities and dust use a suitable vacuum cleaner or sweep up after water spray.

6.4 Reference to other sections

Personal precautions: Section 8. Disposal: Section 13.

7. Handling and storage

7.1 Precautions for safe handling

Avoid unnecessary handling of unwrapped product. Use preferably a knife for cutting. If a power tool is used, it must be equipped with efficient air suction. Ensure adequate ventilation of workplace. See also section 8.

Do not eat or drink in work areas.

In case of sensible skin use protective cream after cleaning.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in original packaging; keep dry and protected against mechanical damage. FIFO method is recommended.

Incompatible materials:

None

Packaging:

Products are packed in polyethylene film and / or cardboard on wooden or EPS pallets.

8. Exposure controls / personal protection

8.1 Control parameters

No specific limit values given in the EU. Please respect your national laws and regulations. Germany: Common occupational exposure limit for dust (TRGS 900): 1,25 mg/m³, alveolar 10 mg/m³, respirable

8.2 Exposure controls

Eye protection

Wear goggles when working overhead. Eye protection to EN 166 is recommended.

Skin protection:

Cover exposed skin. When working in unventilated area wear disposable face mask. Use gloves (acc. EN 388) to avoid itching.

Respiratory protection

When working in unventilated area or during operations which can generate emission of any dust, wear a disposable face mask (FFP1 acc. EN 149).

When insulation wool is heated above 150°C for the first time(s), the thermal decomposition of the organic binder starts. Local ventilation should be provided, if needed wear breathing apparatus. Depending on the service temperature and the installation situation the release of the thermal decomposition gases ends within a few hours /days.

8.3 Additional information

The following informations are printed on the packaging of the ISOVER ULTIMATE mineral wool products:

"Durch Mineralfasern können vorübergehende, kurzzeitige Einwirkungen auf die Haut verursacht werden." / "The mechanical effect of fibres in contact with skin may cause temporary itching"

Wenn möglich, Ar- beitsbereich lüften. / Ventilate working area if possible.	Unbedeckte Hautparti- en schützen, in unbelüf- teten Räumen Einweg- maske tragen. / Cover exposed skin. When working in unventilated area wear disposable face mask.
Bei Überkopfarbeiten Schutzbrille tragen. / Wear goggles when working overhead.	Abfälle nach den ört- lichen Bestimmungen entsorgen. / Waste should be disposed of according to local regu- lations.
Arbeitsbereich mit Staubsauer reinigen. / Clean area using vacu- um equipment.	Hände vor dem Wa- schen mit kaltem Was- ser abspülen. / Rinse in cold water before washing.

9. Physical and chemical properties

9.1 General information

Apperance: Elastic body in different shapes, preferably as batts, slabs, rolls, pipe sections or loose wool. Physical state: Solid

Colour: Yellow brown

Odour: Odourless

Odour threshold: Not applicable

pH value: Not applicable

Melting point: > 1000 °C

The melting point > 1000 $^{\circ}$ C is acc. DIN 4102-17. For long-lasting service at higher temperatures please consider the maximum service temperature of each individual product acc. EN 14303.

Initial boiling point: Not applicable

Flash point: Not applicable

Evaporation rate: Not applicable

Flammability: Mineral wool MIW-S is non-combustible acc. EN 13 501 and / or DIN 4102-1, classes A1 and A2. Deviations are possible based on facings, please see individual technical datasheet. Vapour pressure: Not applicable Relative Density: 10 – 150 kg/m³ Solubility (water): Insoluble Auto-ignition temperature: Not applicable Decomposition temperature: With service temperatures >150 °C the thermal decomposition of the organic binder starts. The mineral fiber itself is stable to higher temperatures (see melting point). Viscosity: Not applicable Explosive properties: Not applicable Oxidising properties: Not applicable

10. Stability and reactivity

10.1 Reactivity

None

10.2 Chemical stability

Stable under living conditions. With service temperatures > 150 °C the thermal decomposition of the organic binder starts.

10.3 Possibility of hazardous reactions

None under recommended use.

10.4 Conditions to avoid

By use below - 183°C liquid oxygen may occur inside the mineral wool MIW-S.

Service temperatures > 150°C

For both applications use specific designed products. Consider the regulations and standards for cryogenic and high temperature use.

10.5 Incompatible materials

None

10.6 Hazardous decomposition products

None up to service temperatures < 150 °C. Above 150 °C the decomposition products are those that would be expected from pyrolysis or burning of any organic material (amongst others CO2, water, ..).

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

None

Skin corrosion/irritation; serious eye damage/irritation; respiratory or skin sensitization None.

Germ cell mutagenicity

None

Carcinogenicity

None. Mineral woolMIW-S is exonerated according to German laws Chemikalien-Verbots-Verordnung (Anhang I, Abschnitt 23) and Gefahrstoff- Verordnung (Anhang II, Nr.5) and european Regulation (EC) No 1272/2008 (Annex VI, Nota Q).

The compliance with the exoneration criteria is checked regular by Gütegemeinschaft Mineralwolle (RAL Mineralwolle) and by EUCEB (European Certification Board for Mineral Wool Products) (see section 16.).

Reproductive toxicity None

STOT-single exposure

None

STOT-repeated exposure

None

Aspiration hazard

None

12. Ecological information

12.1 Toxicity

None

- 12.2 Persistence and degradability Inert
- **12.3 Bioaccumulation potential** No other relevant information available.
- 12.4 Mobility in soil Noner
- **12.5 Results of PBT and vPvB assessment** No assessment required.
- 12.6 Other adverse effects None

13. Disposal considerations

13.1 Waste treatment method

Mineral wool: Remove and dispose in accordance with local regulations and procedures. Code from the list of waste: 17 06 04, "insulation materials other than those mentioned in 17 06 01 and 17 06 03" (Commission decision 2014/955/EU) Packaging: Remove and dispose in accordance with local regulations and procedures.

14. Transport information

- 14.1 UN number
 - None
- 14.2 UN proper shipping name None
- 14.3 Transport hazard classess None
- 14.4 Packaging group

None

14.5 Environmental hazards

None

- 14.6 Special precautions for user None
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

MIW-S mineral wool is an article (REACH, Regulation (EC) No 1907/2006). All components are not classified nor have to be labelled (CLP, regulation (EC) No 1272/2008).

So there is no legal enforcement for a material safety data sheet. Although OBO Bettermann uses this format to provide standardized informations.

German water hazard class (Wassergefährdungsklasse):

Not water-endangering (nicht wassergefährdend) (acc. annex 1, No 1.2a VwVwS issued 27.07.2005).

15.2 Chemical safety assessment

No assessment required.

16. Other data

To ensure that ISOVER ULTIMATE mineral wool products comply with the exoneration criteria all tests and supervision procedures are carried out by independent, expert qualified institutions.

RAL	The sign / certificate of "GGM" (Gütegemeinschaft Mineralwolle e.V.; (http:// www.ral-mineralwolle.de) identifies the compliance with german laws.
EUCEB	The sign / certificate of "EUCEB" (European Certification Board for Mineral Wool Products; http://www.euceb.org) identifies the compliance with european regulations.

ISOVER ULTIMATE (Mineral wool MIW-S) is certified by both boards under glass wool SG-T4.

For use and handling of ISOVER ULTIMATE mineral wool products (Mineral wool MIW-S) manufactured before 01.01.1996 please consider "Technischen Regeln für Gefahrstoffe 521" issued by "Ausschuss für Gefahrstoffe" February 2008 and "Handlungsanleitung: Umgang mit Mineralwolle-Dämmstoffen (Glaswolle, Steinwolle)" issued by "BG Bau" April 2015.

This Safe Use Instruction Sheet is based on our current knowledge at the date of issue and is supposed to describe Mineral wool MIW-S insulation with regard to safety requirements. It is not meant to guaranty with a legally binding effect the presence/absence of certain properties.