1. Identification of the substance/mixture and of the company / undertaking

1.1. Product identifier

ISOVER ULTIMATE mineral wool

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 of the supplier of the Safe Use Instruction Sheet

SAINT-GOBAIN ISOVER G+H AG
Bürgermeister-Grünzweig-Straße 1
D - 67059 Ludwigshafen/Rhein
Telefone: ++49 (0)621 501 2096
Telefax: ++49 (0)621 501 201
E-Mail: dialog@isover.de

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 well-known mechanical effect of coarse fibers. For the handling of ISOVER ULTIMATE mineral wool products we recommend to follow the instructions of sections 7 + 8.

3. Composition / information on ingredients

* In Consideration of Commission Regulation (EU) 2015/830. Safety data sheets are mandatory only for dangerous substances and mixtures. ISOVER ULTIMATE mineral wool products are NOT dangerous.

** This safe use instruction sheet covers only ULTIMATE mineral wool manufactured by Saint-Gobain ISOVER G+H AG.
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 media: 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. Accidental release measures

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 precautions

None.

6.3. Methods and material for containment and cleaning up

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

<table>
<thead>
<tr>
<th>Storage conditions:</th>
<th>Store in original packaging; keep dry and protected against mechanical damage. FIFO method is recommended.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible materials:</td>
<td>None</td>
</tr>
<tr>
<td>Packaging:</td>
<td>Products are packed in polyethylene film and / or cardboard on wooden or EPS pallets.</td>
</tr>
</tbody>
</table>

7.3. Specific end use

Not relevant.

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 informations

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, Arbeitsbereich lüften. / Ventilate working area if possible.

Bei Überkopfarbeiten Schutzbrille tragen. / Wear goggles when working overhead.

Abfälle nach den örtlichen Bestimmungen entsorgen. / Waste should be disposed of according to local regulations.

Arbeitsbereich mit Staubsauger reinigen. / Clean area using vacuum equipment.

Hände vor dem Waschen mit kaltem Wasser abspülen. / Rinse in cold water before washing.
9. Physical and chemical properties

9.1. Allgemeine Angaben

Appearance: 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: Not applicable

Melting point: >1000 °C

The melting point >1000°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: ISOVER ULTIMATE mineral wool 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 ULTIMATE mineral wool.

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
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.
  
  Mechanical effects on skin, eyes and upper respiratory system (mucous membranes) like itching may occur due to coarse fibres; such symptoms are reversible and temporary.

- **Germ cell mutagenicity:** None.
  
  ISOVER ULTIMATE mineral wool is exonerated according to German laws.

- **Carcinogenicity:** None. ISOVER ULTIMATE mineral wool is exonerated according to German 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 regularly 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. **Bioaccumulative potential**

None.

12.4. **Mobility in soil**

None.

12.5. **Results of PBT- and vPvB-assessment**

No assessment required.

12.6. **Other adverse effects**
13. Disposal considerations

13.1. Waste treatment methods

ULTIMATE 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: Germany: For professionals the disposal is done by “INTERSEROH Dienstleistungs GmbH”. For households the disposal is done by „Der Grüne Punkt – Duales System Deutschland GmbH“.

14. Transport information

14.1. UN-Nummer

None

14.2. UN proper shipping name

None

14.3. Transport hazard classes

None

14.4. Packing 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

ISOVER ULTIMATE mineral wool products are articles (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 ISOVER 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 information

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.

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

ISOVER ULTIMATE is certified by both boards under glass wool SG-T4. For use and handling of ISOVER ULTIMATE mineral wool products 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 ISOVER ULTIMATE mineral wool insulation products (all types) with regard to safety requirements. It is not meant to guaranty with a legally binding effect the presence/absence of certain properties.