

## MATERIAL SAFETY DATA SHEET

Date of latest  
revision:  
5.1.2010

Product name: **MINERAL WOOL PRODUCTS**

### 1 Product and Company Identification:

- 1.1 Product identification:**  
Trade name of product: **MINERAL WOOL PRODUCTS**
- 1.2 Use of the product:**  
**1.2.1 Purpose of the use:** **Insulation materials. Building/technical insulation.**  
**1.2.2 Functions of material or product:** **thermal, noise and fire-resisting insulation, agricultural substrate**
- 1.3 Manufacturer/importer identification:**  
Name or trade name: **Saint-Gobain Isover CZ s.r.o.**  
Registered office or place of business: **Masarykova 197, 517 50 Častolovice**  
Registration number: **46507515**  
Telephone: **+420 494331111**  
Fax: **+420 494321327**  
E-mail:
- 1.4 In place of emergency situation, please call:**  
Emergency telephone number: **+420 224 919 293**  
Address: **Toxikologicke informacni stredisko (TIS) (Toxicological information centre),  
Klinika nemoci z povolani (Clinic for occupational diseases),  
Na Bojisti 1  
128 08 Praha 2, Czech Republic**

### 2 Composition Information of Ingredients:

- 2.1 Chemical characteristics of the product:**  
The product contains a dangerous substance as dermed by the Attachment No. 1 of the Decree of the Government of the Czech Republic No. 232/2004 con., List of Classified Dangerous Substances, with specified limit of exposure in atmosphere at workplace<sup>1</sup>:
- 2.2 Dangerous substances**

| Chemical name  | Concentration/<br>Range<br>(%) | Identification number:<br>CAS:<br>EC:<br>Index EC: | Classification<br>Symbol of danger<br>R-phrases   |
|----------------|--------------------------------|--|---|
| Mineral wool*) | over 95                        | Not assigned<br>Not assigned<br>650-016-00-2       | -<br>-<br>In the sense of the Directive 97/69EC, Nota Q, the phrase R40 does not need to be assigned. |

<sup>1</sup> Decree of Government No. 178/2001 con., as amended, which defines the conditions for work safety and health protection.

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As defined: ▀) [Man-made vitreous (silicate) fibres with random orientation and alkali oxide/alkali earth oxide ( $\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$ ) content greater than 18% by weight]

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### 3 **Hazard identification:**

The products do not correspond to the characteristics of dangerous substance in the sense of the Act No. 356/2003 Col I., as amended, and Decree of Government No. 178/2001 Coll., as amended (see the Paragraph 15.2 for the full quotation).

The risk assessment corresponds also to applicable EU Directives and includes relevant data from technical literature and databases.

#### 3.1 **Most important negative effects on human health in connection with product use:**

The products are not classified as dangerous for human health according to the Act No. 356/2003 Col I., as amended.

#### 3.2 **Most important negative effects on environment in connection with product use:**

The products are not classified as dangerous for environment according to the Act No. 356/2003 Col I., as amended.

#### 3.3 **Most important negative effects from aspects of physical and chemical characteristics:**

The products are not classified as flammable or oxidising according to the Act No. 356/2003 Col I., as amended.

#### 3.4 **Possible improper product use:**

Not applicable.

#### 3.5 **Additional information:**

Mineral fibres contained in these products have low biopersistence (weighted half-time of fibres with the length greater than 20  $\mu\text{m}$  after inhalation is shorter than 10 days and after intratracheal instillation is shorter than 40 days) and such products are not therefore classified as suspected carcinogenic substance.

Based on a recent document published by EURIMA, the products made of mineral or glass wool (including respective residual waste) are not classified as skin irritating substances (with regard to applicable criteria of the Directive 67/548/EEC).

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### 4 **First aid measures**

#### 4.1 **General advice:**

When working with the product, e.g. cutting it, small particles arising from the working process can cause the irritation of skin or respiratory system, in particular at sensitive persons.

In case of doubts or if symptoms occur, consult a doctor and present him/her the information from this Material Safety Data Sheet.

#### 4.2 **After inhalation:**

Leave contaminated area. If any irritation of respiratory system persists, seek medical aid.

#### 4.3 **After contact with skin:**

Wash with water and soap. If any irritation of skin persists, seek medical aid.

#### 4.4 **After contact with eyes:**

Rinse with plenty of clean lukewarm water. If any eye irritation persists, seek medical aid.

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### 4.5 After ingestion:

Rinse the mouth with clean water.

### 4.6 Additional information:

#### 4.6.1 Recommendation for medical first aid:

The therapy should be symptomatic. Mechanical irritation (e.g. conjunctivitis, irritation of respiratory system).

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## 5 Fire-fighting measures

### 5.1 Suitable extinguishing agents:

The product itself is fireproof.

Possible fire should be extinguished taking in consideration surrounding materials/environment.

### 5.2 Extinguishing agents which must not be used for safety reasons:

Not applicable.

### 5.3 Special hazards (relating to possible explosion or specific risks in case of fire or extinguishing):

Not applicable.

### 5.4 Special protective aids for fire-fighters:

In case of fire use suitable protective aids for respiratory system (such as breathing apparatus) or whole body protection aids.

### 5.5 Additional information:

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## 6 Accidental release measures:

### 6.1 Personal precautions:

Not applicable.

### 6.2 Environmental precautions:

Not applicable.

### 6.3 Recommended cleaning and disposal methods:

Carefully remove (sweep) any product-related dust.

### 6.4 Additional information:

None.

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## 7 Handling and storage instructions:

### 7.1 Handling:

#### 7.1.1 Technical measures/precautions:

Use personal protective aids according to the Paragraph 8.

#### 7.1.2 Other special requirements including forbidden or recommended handling procedures:

Not applicable.

### 7.2 Forbidden or recommended procedures/equipment:

#### 7.2.1 Fire and explosion prevention:

Not applicable.

### 7.3 Storage instructions:

#### 7.3.1 Safe storage conditions:

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Keep in original wrapping. If not stored in original wrapping, protect against weather impacts.

### 7.3.2 Requirements for storage in one common storage facility:

#### Conditions for storage in one common storage facility:

No special conditions required.

### 7.4 Specific use:

Not applicable.

## 8 Exposure controls/personal protection

### 8.1 Technical (or other) measures for personal exposure control:

Work in a well ventilated room so that any applicable PELs are not exceeded. Otherwise use suitable personal protective aids, in particular for respiratory system.

### 8.2 Occupational personal exposure limits:

#### 8.2.1 Products contain a substance for which the following Personal Exposure Limits (PELs) have been defined according to the Decree of Government No. 178/2001 Coll., as amended:

##### 8.2.2

| Chemical name  | CAS number   | PEL <sub>c</sub> , arithmetic concentration<br>(number of respirable fibres/cm <sup>3</sup> ) | Weight concentration<br>(mg/m <sup>3</sup> ) |
|--|--------------|---|--|
| Man-made mineral fibres<br>(e.g. made of basalt, glass, or slag) | Not assigned | 1   | 4  |

Note: For man-made mineral fibres, the values of fibre concentration in workplace atmosphere must conform to both allowable concentration limits (arithmetic and weight).

#### 8.2.3 Recommended method for measurement of pollutant concentration in workplace atmosphere:

Measurement of dust concentration according to the methodology described in the Attachment No. 3 of the Decree of Government No. 178/2001 Coll., as amended by the Decree of Government No. 523/2002 Coll.

#### 8.2.4 Recommended personal exposure monitoring procedures (e.g. in the sense of the Decree No. 432/2003 Coll.):

Not determined.

### 8.3 Personal protective aids:

#### 8.3.1 Respiratory protection:

When working in a badly ventilated area or if the dust concentration in workplace atmosphere exceeds appropriate PEL values, use a respiratory half-mask with suitable filter against solid particles or at least a face-part respiratory mask made of filtering material. Such personal protection aid should be used also in case of any dust-developing working procedures, such as insulation panel cutting or handling in a confined area.

#### 8.3.2 Eye protection:

Safety glasses.

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### 8.3.3 Hand protection:

Protective gloves.

### 8.3.4 Skin and body protection:

Working clothes (suitable for such work).

### 8.4 Additional information including general hygienic precautions:

Do not use contact lenses when working with these products. In particular do not eat or smoke. After the work, shake off dust from clothes carefully. When washing, proceed carefully; at first, let water only stream down on your body and start to wash only after a while. Treat your skin with convenient reparative cosmetic preparations.

### 8.5 Environmental exposure controls:

Not applicable.

## 9 Physical and chemical properties

|      |  |   |
|------|--|---|
| 9.1  | <b>Form (at 20°C):</b>                               | Solid panels or mats made of fibrous material |
| 9.2  | <b>Colour:</b>                                       | Yellowish grey                                |
| 9.3  | <b>Odour (scent):</b>                                | Odourless                                     |
| 9.4  | <b>pH-value (at 20°C)</b>                            | Not applicable.                               |
| 9.5  | <b>pH-value of 1% solution (at 20°C):</b>            | Not applicable.                               |
| 9.6  | <b>Melting point (range) (°C):</b>                   | Over 1000                                     |
| 9.7  | <b>Boiling point (range) (°C):</b>                   | Not applicable.                               |
| 9.8  | <b>Flash point (°C):</b>                             | Not applicable.                               |
| 9.9  | <b>Flammability:</b>                                 | None (Fireproof material).                    |
| 9.10 | <b>Burning point according to CSN 656212 (°C):</b>   | Not applicable.                               |
| 9.11 | <b>Ignition temperature acc. to CSN 330371 (°C):</b> | Not applicable.                               |
| 9.12 | <b>Self-ignition temperature (°C):</b>               | No self-ignition.                             |
| 9.13 | <b>Explosion limits:</b>                             |   |
|      | <b>Upper limit (% vol.):</b>                         | Not applicable. No risk of explosion.         |
|      | <b>Lower limit (% vol.):</b>                         | Not applicable. No risk of explosion.         |
| 9.14 | <b>Oxidation characteristics:</b>                    | Not applicable.                               |
| 9.15 | <b>Vapour pressure (at 20 °C):</b>                   | Not applicable.                               |
| 9.16 | <b>Density (at 20 °C) (g/cm<sup>3</sup>):</b>        | Up to 250 kg/m <sup>3</sup>                   |
| 9.17 | <b>Solubility (at 20 °C):</b>                        |   |
|      | <b>In water:</b>                                     | Insoluble.                                    |
|      | <b>In oil (including oil specification):</b>         | Insoluble.                                    |
| 9.18 | <b>Additional information:</b>                       | None.   |

## 10 Information on stability and reactivity:

### 10.1 Conditions to keep the product stable:

The product is stable when used in the usual way; there is no risk of decomposition.

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- 10.2 Conditions to avoid:**  
Humidity (the product would deteriorate).
- 10.3 Materials to avoid:**  
Not applicable.
- 10.4 Hazardous decomposition products:**  
None.
- 10.4.1 Necessity of stabilising agent in the product:**  
Not applicable.
- 10.4.2 Possible dangerous exothermal reaction:**  
Not applicable.
- 10.4.3 Importance of changed physical properties for product stability and safety:**  
Not applicable.
- 10.4.4 Hazardous decomposition products at the contact with water:** Not applicable.
- 10.4.5 Possible decomposition of the product with the formation of unstable substances:** Not applicable.
- 10.5 Additional information (e.g. with regard to possible risk of polymerisation):**  
Not applicable.

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### **11 Toxicological information relating to the product (or to its components):**

- 11.1 Acute toxicity**
- 11.1.1 Product:**  
No toxicological data are available for the product.
- |   |                    |
|---|--------------------|
| LD <sub>50</sub> , oral, rat:                                   | No data available. |
| LD <sub>50</sub> , dermal, rat or rabbit:                       | No data available. |
| LC <sub>50</sub> , per inhalation, rat, for aerosols/particles: | No data available. |
- 11.1.2 Components of the product:**  
Due to the properties of components, the product is practically non-toxic when considering acute effects.
- 11.2 Sub-chronic - chronic toxicity (of the product and/or its components):**  
The product has no chronic toxic effects.
- 11.3 Irritating effects (presumed/without tests):**  
**for skin:** Mechanical irritating effects.  
**for eyes:** Mechanical irritating effects.
- 11.4 Sensitisation:**  
Not determined for the product. It is unlikely.
- 11.5 Carcinogenicity:**  
Not determined for the product. The product components have no carcinogenic effects.
- 11.6 Mutagenicity:**  
Not applicable.
- 11.7 Toxicity for reproduction:**  
Not applicable.

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### 11.8 Experience from effects on humans:

According to manufacturer's information, no serious harmful effects on human health have been observed during the 30-year long period of production. Also no epidemiologic study evaluated by IARC has proved any carcinogenic effects.

### 11.9 Narcotic effects:

Not applicable.

### 11.10 Additional information:

#### 11.10.1 Tests on animals:

The products have been tested on animals in the laboratories "Fraunhofer Institut für Toxikologie und Aerosolforschung", Hannover, Germany. The test of biopersistence with rats after intratracheal instillation has shown low biopersistence (less than allowable 40 days).

## 12 Ecological information relating to the product (and/or its components):

No data of such character are available for the product.

### 12.1 Aquatic ecotoxicity:

The product shows no aquatic ecotoxicity.

#### 12.1.1 Acute aquatic toxicity of the product:

LC<sub>50</sub>, 96 hrs., fish: (mg.l<sup>-1</sup>) Not determined.

EC<sub>50</sub>, 48 hrs., daphnia: (mg.l<sup>-1</sup>) Not determined.

IC<sub>50</sub>, 72 hrs., algae: (mg.l<sup>-1</sup>) Not determined.

#### 12.1.2 Acute aquatic toxicity of the product components:

LC<sub>50</sub>, 96 hrs., fish: (mg.l<sup>-1</sup>) No data available.

EC<sub>50</sub>, 48 hrs., daphnie: (mg.l<sup>-1</sup>) No data available.

IC<sub>50</sub>, 72 hrs., algae: (mg.l<sup>-1</sup>) No data available.

### 12.2 Toxicity for other environment:

No determined.

### 12.3 Mobility:

No determined.

### 12.4 Persistence and dissolubility:

No determined.

### 12.5 Bioaccumulative potential:

No determined.

### 12.6 Absorption or desorption:

No determined.

### 12.7 Additional information:

Chemical Oxygen Demand(CHSK): Not determined.

Biological Oxygen Demands (BSK<sub>5</sub>): Not determined.

### 12.8 Other negative effects:

The product is inert - without environmental hazards.

## 13 Product and packaging disposal considerations:

### 13.1 Possible dangerous of elimination product:

None.



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- 15.1.1 Warning symbol and written indication of hazardous physico-chemical properties and hazardous to health or the environment corresponding to the classification of dangerous product according to § 5 and Attachment no. 4 Decree no. 232/2004 Coll.:**  
None.
- 15.1.2 Chemical name of dangerous substance or substances in the product in the form of one of the names listed in the List of obligatorily classified dangerous substances. (If the substance not listed, the chemical name of the substance must be in accordance with internationally accepted nomenclature – just more than 4 of the substances)**  
Mineral wool.
- 15.1.3 Standard phrase indicating specific risk (R-phrase) according to §§ 6 and 8 and attachments no. 2, 5 and 7 Decree no. 232/2004 Coll.:**  
None.
- 15.1.4 Standard instructions for safe handling (S-phrase) according to §7 and attachments no. 2, 5 and 7 Decree no. 232/2004 Coll. (if it is not possible to put these instructions on the label or package then these instructions must be attached to the package):**  
None.
- 15.1.5 Guidelines for pre-medical first aid products for sale in retail (§21 paragraph 5 of Law no. 356/2003 Coll. As amended):**  
They are not.

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## **16 Further information:**

- 16.1 Additional information which is important from the aspects of work safety and human health protection (e.g. instructions for training, preventive medical examinations, recommended use of preparations, recommendations for limited exploitation of preparations, etc.):**  
The User is responsible for the observation of all regulations related to health and environment protection.
- 16.2 Information on data sources exploited for compilation of this Material Safety Data Sheet:**  
IARC IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Man-made Vitreous Fibres;  
Manufacturer's data and external databases, in particular: ChemKnowledge@ System Plus Ariel GlobalView from MICROMEDEX@CCINFO (Canadian Centre for Occupational Health and Safety), EINECS PLUS a OSH Plus - databases of the European Union, the List (EINECS in the Czech version), Occupational Health and Safety regulations and catalogues of the companies MERCK, FLUKA, ALDRICH a SIGMA in their latest versions.  
EURIMA - Final summary from tests of irritation (dated 12.4.2002).  
Fraunhofer Institut für Toxikologie und Aerosolforschung", Hannover, Germany - Report on biopersistence testing of Carcinogenic Risks to humans, Man-made Vitreous Fibres;

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### Declaration:

This Material Safety Data Sheet contains data necessary for achieving work safety, health protection and environment protection. These data are based on our present knowledge and experience and comply with appropriate legal regulations. However, such data must not be considered as a guarantee of suitability or applicability of respective product for any specific use.