

MATERIAL SAFETY DATA SHEET

(MSDS in accordance with ISO 11014-1 and EU Directive 91/155 EEC)

Date: 10 dec 1999

Former date: 4 jan 1999

1. PRODUCT AND COMPANY IDENTIFICATION**1.1 Identification of the substance or preparation**

Form shaped stone wool products like boards, mats and pipe insulation manufactured by Paroc AB

Trade name Paroc

1.2 Identification of the manufacturer, importer or other undertaking**1.2.1 Manufacturer** Paroc AB**1.2.2 Postcode and post office** 541 86 Skövde Sweden**Telephone number** +46 500 469000**Telefax** +46 500 469220**VAT No** SE556036376301**2. COMPOSITION AND INFORMATION ON INGREDIENTS****2.1 Description**

Stone wool products for building, technical and sound insulation. The products are form shaped like boards, mats or pipe insulation.

The products contains:

mineral wool (synthetic inorganic fibres) 95 – 99%

phenolic binder 1 – 5 %

mineral oil 0,2 – 0,5 %

Mineral fibres have been classified by EU as irritating to skin. See p. 3.

The products are either with or without facing. The facing can be for instance paper, polyethene plastic, aluminium foil, glass- or polypropene tissue, a thin metal sheet or a plastic film laminate.

2.2 Hazardous ingredients

2.2.1 CAS number or other code	2.2.2 Name of the ingredient	2.2.3 Concentration	2.2.4 Warning symbol, R phrases and other data on the ingredient
-	mineral wool	94 - 100 %	Xi, R 38 Irritating, irritating to skin TLV _{8h} 1 f/cc

3. HAZARDS IDENTIFICATION

Mineral wool is classified as irritating to skin. The irritation is mechanical and temporary. High dust levels may irritate the eyes and the upper respiratory tract. The binder can emit unhealthy gases when the product for the first time is heated over 190 °C.

4. FIRST AID MEASURES**4.1 Inhalation**

Leave the dusty space.

4.2 Skin

If irritation occurs, do not rub or scratch. Rinse under running water prior to washing with soap and water.

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Engineered Stone Wool Products**Paroc AB**
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4.3 Eyes

If irritation occurs, do not rub the eyes. Flush eyes carefully with eye flushing liquid or water. Consult a physician if irritation persists.

5. FIRE-FIGHTING MEASURES**5.1 Suitable extinguishing media**

There are no special demand for extinguishing media. Normal extinguishing media can be used.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions**

Not applicable

6.2 Environmental precautions

Not applicable

6.3 Methods for cleaning up

Normal cleaning. See p. 7 and p. 13.

7. HANDLING AND STORAGE**7.1 Handling**

Cut the products with a sharp knife on a fixed workbench.

Ensure good ventilation especially in confined spaces and in removal works.

When using high speed cutting tools or in particularly dusty work, local exhaust ventilation should be used. If not, use personal protective clothing.

Dispose the scrap material in suitable waste bags and then use a vacuum cleaner. Avoid dry sweeping.

7.2 Storage

Keep material in original packaging protected against humidity and mechanical damage until it is to be used.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Technical measures for exposure controls**

See point 7

8.2 Limit values for workplace air

Local regulations may apply

8.3 Personal protective equipment**8.3.1 Special instructions for protection and hygiene**

Working clothes should be kept and washed separately from other clothes.

8.3.2 Respiratory protection

A dust mask complying with EN 149 FFP2 should be used if there is any risk that the limit value is exceeded or if the dust irritates. If it is necessary to be present when the product for the first time is heated over c. 190 °C, a fresh-air mask should be worn.

8.3.3 Hand protection

Wear suitable gloves.

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8.3.4 Eye protection

Wear safety goggles whenever insulation wool products are being applied over the eye level. If a person wears contact lenses safety goggles should always be worn.

8.3.5 Skin protection

Use suitable protective clothes and gloves that fit tightly around the neck and the wrists.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Physical state, colour and odour**

Solid, fibrous, yellowish brown, odourless

9.1.1 pH

Not applicable

9.1.2 Melting point/melting range

At temperatures above 1000 °C the glass in the stone wool begin to soften and melt. There is no actual melting point.

9.1.3 Decomposition temperature

The binder will decompose at a temperature above 200 °C.

9.1.4 Flash point

Not applicable

9.1.5 Explosive limits

Not applicable

9.1.5 Relative density

20 - 250 kg/m³

9.1.6 Solubility

The products are practically insoluble in water and in organic solutions.

10. STABILITY AND REACTIVITY

The products are chemically stable and non-reactive.

10.1 Thermal decomposition products

When mineral wool is heated above c. 190 °C, the binder starts to decompose and this can be detected as an odour. Emission normally occurs only during the first heatings and lasts only for a short while. Ensure good ventilation as long as the smell can be felt. Avoid staying in unpleasant smoke. If this is necessary, use personal protection according to point 8.

11. TOXICOLOGICAL INFORMATION**11.1 Acute toxicity**

None if the fibres are inhaled, swallowed or in contact with skin or eyes at normal use of the products. Gases emitted when the products are heated above c. 190 °C for the first time may have a negative influence on health.

11.2 Coarse fibres

Coarse fibres can cause itching of the skin, foreign body reaction in the upper respiratory system (mucous

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membranes), and in the eyes. The itching and the possible inflammation are a mechanical reaction to the coarse fibres (of more than about 5 µm in diameter) and are not damaging in the way chemical irritants may be. They generally abate within a short time after the end of exposure. When products are handled continually, the skin itching generally diminishes. In the 23:rd amendment (97/69/EC) of the directive 67/548/EC is mineral wool classified as irritating to the skin.

11.3 Long term effects

According to Nota Q in the same Directive as above, mineral wool fibres with a high biosolubility should not be classified as possible carcinogenic. Paroc's stone wool fibres are tested according to the EU protocols ECB/TM 26;27 Rev. 7 1998 and the fibres fulfill the criteria of Nota Q on biosolubility. The fibres also fulfill the demands concerning biosolubility in accordance with the German Gefahrstoffverordnung.

12. ECOLOGICAL INFORMATION**12.1 Persistence in the environment**

Stone wool decompose very slowly in the environment and do not emit any substances that would have an noticeable impact on the environment. The same is valid for the facings.

13. DISPOSAL CONSIDERATIONS

No special regulations are required for disposal of stone wool.

14. TRANSPORT INFORMATION

No special regulations are required for transportation of the products.

15. REGULATORY INFORMATION**15.1 EC Classification**

The products contains Mineral Fibres [Man-made vitreous (silicate) fibres]
Danger Symbol: Xi Irritant
Risk Phrases: Irritating to the skin (R:38)
Safety Phrases: Wear suitable protective clothing and gloves (S38/37)

This Mineral Wool is exonerated from classification as a carcinogen according to Nota Q in EU commission Directive 97/69/EC

15.2 Other Regulations

Not applicable

15.3 Exposure limits

Recommended Maximum Exposure Limit (MEL) 1 fibre/ml (respirable) and/or 5 mg/m³ (respirable dust), 8 hour Time Weighted Average (TWA).

16. OTHER INFORMATION**16.1 Health Aspects**

Safety in the Use of Mineral and Synthetic Fibres, Occupational and Health Series, International Labour Office (ILO).

Information about "Health Aspects, Insulation Wool (Glass-, Stone- and Slag-wool)" can be obtained at the European Insulation Manufacturers Association (EURIMA, Av-Louise 376, ble 4, B-1050, Bruxelles).

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16.2 Good Working Practices

Local regulations may apply.

Advise: Please follow The "Code of Practise for Manufacturers and Users of Insulation Wools" edited by the European Insulation Manufacturers Association (EURIMA).