

MATERIAL SAFETY DATA SHEET

PRODUCT : **MINERAL FIBRE FILTER ELEMENTS**

DATE: January 2001

Note: This MSDS relates only to new unconditioned filter elements, their handling, storage and installation. When handling or removing used filter elements, significant amounts of hazardous contaminants may be present on the surface of the elements. The operator must be made aware of these hazardous materials and must take the appropriate precautions.

1 Identification:

- 1.1 Product
Vacuum formed products containing engineered mineral fibres, man man-made vitreous (silicate) fibres (HT, MMVF34) and amorphous silica
- 1.2 Company address: Brightcross Insulation Ltd
Shaftesbury St
Derby DE23 8XA
England
- 1.3 Telephone: +44 (0)1332 331808

2 Information on ingredients:

	CAS-No.	Contents	Classification	R phrases
Man-made vitreous (silicate) fibres	None assigned	40-90%	X _i	Irritating to skin (R:38)
Starch	(EINECS 232-679-6)	0-5%	N.A.	N.A.
Amorphous silica	N.A.	10-60%	N.A.	N.A.

3 Hazards identification:

- 3.1 Mineral fibres
The mineral fibres have been classified by EU as irritating to skin.
High dust levels may irritate the throat and eyes.

4 First-aid measures:

- 4.1 Skin
If irritation occurs, do not rub or scratch. Rinse under running water prior to washing with mild soap and water
- 4.2 Eyes
If irritation occurs, do not rub the eyes. Flush eyes with water and consult a physician if irritation persists.

5 Fire-fighting measures:

The products are non-combustible and do not pose a fire hazard. However, packaging material may burn.

- 5.1 Suitable extinguishing media:
Water, foam, carbon dioxide or dry powder
- 5.2 Extinguishing media, which must not be used for safety reasons.
None.
- 5.3 Combustion products:

Carbon dioxide, carbon monoxide and trace gasses.

- 5.4 Special protective equipment for fire fighters.
Observe normal fire fighting procedure

6 Accidental release measures:

No special measures required.

7 Handling and storage:

- 7.1 Handling:
Keep work areas clean. Dispose of scrap material and debris in suitable containers.
Spray with water before sweeping or use vacuum equipment.
Ensure good ventilation. Local exhaust ventilation may be required if the method of use produces dust levels that exceed the maximum exposure limit
- 7.2 Storage:
- Keep product in original packaging until it is to be used.
 - Store product in dry conditions.

8 Exposure controls/personal protection.

Local regulations may apply.

- 8.1 Respiratory protection
The unused product will not generate dust unless broken or abraded.
With heavy dust development and in confined spaces, use disposable facemasks complying with EN149 FFP1 or FFP2 [e. g. 3M model 8710 or any similar NIOSH approved dust mask] or if the filter elements have been used, use personal protective equipment appropriate for the contaminating material.
- 8.2 Hand protection
Wear suitable gloves.
- 8.3 Eye protection
With heavy dust development, wear safety goggles.
- 8.4 Skin protection
Wear loose fitting, long-sleeved work clothes.
Wash overalls separately from other clothing.

9 Physical and chemical properties:

- | | | |
|--------|------------------------|-------------------------------|
| 9.1 | Appearance: | Solid, Grey |
| 9.1.1 | Odour: | n.a |
| 9.1.2 | pH: | n.a. |
| 9.1.3 | Boiling point: | n.a |
| 9.1.4 | Melting point: | above 1000°C |
| 9.1.5 | Flash point: |) |
| 9.1.6 | Flammability: |) Non-flammable DIN 4102 |
| 9.1.7 | Autoflammability: |) |
| 9.1.8 | Explosive properties: | n.a. |
| 9.1.9 | Oxidising properties: | n.a. |
| 9.1.10 | Vapour pressure: | n.a. |
| 9.1.11 | Density: | approx. 260 kg/m ³ |
| 9.1.12 | Solubility: | n.a. |
| 9.1.13 | Partition coefficient: | n.a. |

9.1.14 Other data: n.a.

10 Stability and reactivity:

- 10.1 Stability: Stable
- 10.2 Reactivity: Not reactive

Thermal decomposition products

When first heated above 200°C, the starch binder will start to decompose and oxidise.

Small quantities of carbon dioxide, carbon monoxide, carbon particulate, water, and trace gases may be released.

11 Toxicological information:

11.1 Coarse fibres

If the product is broken or abraded, coarse fibres may be released which can cause itching of the skin, foreign body reaction in the upper respiratory system (mucous membranes), and in the eyes. The itching and 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.

11.2 Respirable fibres

Animal studies

If long fibres are very durable and present in high concentrations they may lead to disease.

Short-term inhalation studies of rats exposed to high levels of stone wool fibres have shown that the long fibres disappear quickly from the lungs (are biodegradable).

Experiences in humans (Epidemiological Studies)

Large morbidity and mortality studies of both European and North American mineral wool manufacturing workers have been conducted with the traditional mineral wools.

The studies have found no significant evidence of non-malignant lung disease (e.g. fibrosis) The studies have not established a causal relationship between exposure to stone wool and malignant diseases (lung cancer or mesothelioma).

These new stone wool fibres are much more biosoluble and will disappear even more rapidly than the traditional types.

12 Ecological information:

Stable product with no known adverse environmental effects.

13 Disposal consideration:

The product can typically be disposed of in an ordinary landfill (local regulations may apply)

14 Transport information:

No special precautions.

15 Regulatory information:

15.1 EC Classification

The product contains Mineral Fibres [Man-made vitreous (silicate) fibres]
Danger Symbol X_i Irritant
Risk Phrases: Irritating to skin (R.38)
Safety Phrases: Wear suitable protective clothing and gloves (S36/37).

15.2 Other Regulations

n.a.

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 Further information:

16.1 Health Aspects

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

Europe

information about "Health Aspects. Insulation Wool (Glass-, Stone, and Slag-wool)" can be obtained at the European Insulation Manufacturers Association (EURIMA, Av. Louise 375, bte 4, B-1050 Brussels)

North America

Information about "Health and Safety Research on Rock- and Slag-wool" can be obtained at the North American Insulation Manufacturers Association (NAIMA, 44 Canal Center Plaza, Suite 310, Alexandria, VA 22314, USA).

16.2 Good Working Practices

Local regulations may apply

Advice please follow the "Code of Practice for Manufacturers and Users of Insulation Wools" edited by the European Insulation Manufacturers Association (EURIMA).

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