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MATERIAL SAFETY DATA SHEET

Product: **Expanded vermiculite**
Not Classified as hazardous according to criteria of 67/548/EWG norm and 1272/2008/WE and 1907/2006 (REACH) regulations. Doesn't contain the asbestos.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND COMPANY

1.1. PRODUCT/ MIXTURE ID

Substance/ Mixture: Expanded vermiculite: Micron, Superfine, Fine, Medium, Large.
WE number: not classified
REACH number: not classified
CAS number: 1318-00-9
Product type: solid
Chemical formula: $(Mg,Fe^{+2},Fe^{+3})3[(Al,Si)4O10](OH)2{\cdot}4H2O$
Customs code: 6806 20 90 00

1.2. RELEVANT IDENTIFIED USES OF SUBSTANCE

Thermal insulators, main component of fireproof and thermal insulation boards and panels, component of light and warm plasters, filler in brake pads and friction materials. An absorbent to protect chemical leaks. Protection in transports (bottles), for self-expanding seals and fillings. In ecology, sewage treatment plants, horticulture and agriculture as a biostimulator, temperature-maintaining, water-storing and odor-absorbing element. As a component/ additive of feed and food products.

1.3. DETAILS OF SUPPLIER OF SAFETY DATA SHEET

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1.4. EMERGENCY TELEPHONE NUMBER (POLAND)

112

SECTION 2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE / MIXTURE

Hazards to people: not classified.
Environmental hazard: not classified.

2.2. LABEL ELEMENTS

Symbols and warning signs : not classified.
Indications of danger : not classified.
Indications for caution : not classified.
Indication of hazardous ingredients : not classified.

2.3. OTHER HAZARDS:

Not classified.

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SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. The product consists of compounds not classified as hazardous in relation to the regulation 1272/2008/WE. (CAS: 7631-86-9) $Si0_2$, (CAS: 1309-48-4) MgO, (CAS: 1344-28-1) Al_20_3, (CAS: 1309-37-1) Fe_20_3, (CAS: 1305-78-8) Ca0.The product does not contain impurities or additives classified as hazardous in relation to the requirements of the Directive 67/548/EWG.

SECTION 4. FIRST AID AND MEASURES

4.1. DESCRIPTION OF FIRST AID AND MEASURES

Ingestion:
No first aid required as ingestion is not anticipated. Flush with clean water. In case of irritation, seek medical advice.

Eye:
Do not close your eyes, flush continuously for several minutes. In the case of the lens removing problem contact with the specialist.

Skin:
Harmless and non-irritant. Wash thoroughly with water (use soap).

Inhalation:
The products are not irritating at normal contact. If dust has been drawn in, move into fresh air, blow your nose several times until the respiratory tract is clear. Flush mouth with plenty of water to remove dust from the throat.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Consumption:
The products are not harmful to the gastrointestinal tract. Irritating can be dust formed at a long time of using. Non - toxic if swallowed.

Eye:
The products are not harmful to the eyes. Irritating can be dust formed at a long time of using (redness and irritation).

Skin:
The products are not harmful to the skin. In the case of sensitive skin or allergies irritating can be dust formed at a long time of using (dry skin). The dust is not absorbed through in the intact skin.

Inhalation:
Undamaged products are not harmful to the upper respiratory tract. Irritating can be dust formed at a long time of using.

Chronic diseases:
Undamaged products do not cause any chronic diseases. Irritating can be dust formed at long time of using.The Dust doesn't revealed any immediate threat to health. It does not contain asbestos. Several years of impact, without adequate safeguards can cause fibrotic pneumoconiosis, which can be detected by RTG.

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4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Information for the medical:
Treat symptomatically.

Specific treatments:
No special treatment.

SECTION 5. FIRE FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA
Expanded vermiculite is not a flammable product.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE
No specific.

5.3. ADVICE FOR FIRE FIGHTERS
No specific fire fighting equipment is required. No explosion hazard.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONALPRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES
Use personal protective equipment in compliance with national legislation.Prevent formation of dust if possible.Respiratory equipment should be worn if dust is created.

6.2. ENVIRONMENTAL PRECAUTIONS
No special precautions. Ecological, natural product.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP
Does not cause environmental pollution. Avoid dust creation.

6.4. REFERENCE TO OTHER SECTIONS
No references.

SECTION 7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Protective measures:
Not required when working with the finished, packaged product. Otherwise (like pouring, mixing) work in well ventilated rooms. In the case of the risk of excessive inhalation of dust use special masks with dust filters. See Section 8.

Precautions in the event of fire or explosion
None. The product is not flammable, does not form explosive mixtures.

Advice on occupational hygiene
No specific recommendations. Wash your hands and face before eating or drinking.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Follow the manufacturer's instructions. Protect from moisture. For larger quantities, store and transport on pallets. Secure with straps.

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Storage:

No restrictions. Protect from moisture.

Transport:

No restrictions. Protect from moisture.

7.3. SPECIFIC END USE
None.

SECTION 8. INFORMATION ON THE SAFE USE OF PREMIUM EXPANDED VERMICULITE

8.1. CONTROL PARAMETERS
No specific indications.

The highest acceptable concentration:
No data available.

DNEL:
No DNEL's data available.

PNEC:
No PNEC's concentration level data.

8.2. EXPOSURE CONTROLS
Efficient general ventilation should be sufficient to control worker exposure to dust. Local extracts may be used when mixing products.

Individual protection measures, such as personal protective equipment

Eyes:
Safety glasses with side shields or chemical googles.

Hands and feets:
To protect of hands wearing a gloves (disposable, rubber, protective, cotton, etc.)

Other:
Work clothing should be frequently washed. At the relevant places make available means to wash the eyes. Personal protective equipment are determined depending on the use and amount of material. In the case of excessive inhalation of dust use special masks with dust filters.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Form:
Solid.

Odour:
No odour.

pH:
Alkaline.

Colour
Golden, brown, silver flakes.

Appearance:
Porous granules.

Melting point:
1350 – 1430 ° C.

Solubility:
Insoluble in water and in organic solvents. Soluble in strong mineral acids.

Density:
75 – 150 kg/m^3.

9.2. OTHER INFORMATION
None available.

SECTION 10. STABILITY AND REACTIVITY

10.1. REACTIVITY
The product is not classified as reactive.

10.2. CHEMICAL STABILITY
The product is stable under normal conditions of use and storage.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS
If used as recommended no hazardous reactions are to be expected.

10.4. CONDITIONS TO AVOID
Excessive humidity.

10.5. INCOMPATIBLE MATERIALS
No incompatibility.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS
Not relevant.

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SECTION 11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity
None.

Skin contact
Lack.

Allergy
Lack.

Mutagenicity
Lack.

Carcino genicity
Lack.

Harmful to reproduction
Lack.

Specific target organ toxicity - single exposure
Lack.

Specific target organ toxicity - repeated exposure
Lack.

Danger of inhalation
Lack.

SECTION 12. ECOLOGICAL INFORMATION

12.1. TOXICITY
No data available.

12.2. PERSISTENCE AND DEGRADABILITY
No data available.

12.3. BIOACCUMULATIVE POTENTIAL
No data available.

12.4. MOBILITY IN SOIL
No data available.

12.5. RESULTS OF PBT AND vPvB ASSESSMENT
No data available.

12.6. OTHER ADVERSE EFFECTS
No known significant effects or critical hazards.

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SECTION 13. DISPOSAL CONSIDERATIONS

13.1. waste treatment methods

Product:

Method of disposal:

Disposal in properly adapted places for waste storage. If the vermiculite has absorbed harmful substances, carefully clean the place of contamination and place the substance in sealed and specially marked containers.

Hazardous waste:
According to the current knowledge of the supplier, this product is not considered hazardous waste in the light of Directive 91/689 / EC of the European Union.

Packaging:

Packaging waste should be recycled. Empty bags may retain product residues.

Special precautions
Lack.

SECTION 14. TRANSPORT INFORMATION

The product is not classified as dangerous in the meaning of transport regulations.

14.1. UN ADR/RID; ADN; IMO/IMDG; IATA number:
Not classified.

14.2. ADR/RID; ADN; IMO/IMDG; IATA proper shipping name:
Not classified.

14.3. ADR/RID; ADN; IMO/IMDG; IATA transport hazard class (es)
Not classified.

14.4. ADR/RID; ADN; IMO/IMDG; IATA packaging group
Not classified.

14.5. Environmental threats
Not classified.

14.6. Special precautions for users
Not classified.

14.7. Transport luzem
Not classified.

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SECTION 15. REGULATORY INFORMATION

15.1. LEGAL REGULATIONS REGARDING SAFETY, HEALTH AND ENVIRONMENTAL PROTECTION SPECIFIC TO THE SUBSTANCE OR MIXTURE. WITH LATER CHANGES

- (EC) No. 1907/2006 (REACH) EU Regulation on the registration, evaluation, authorization and restrictions of chemicals.

- 67/548 / EEC directive on the classification of hazardous chemicals.

- 1272/2008 / EC regulation on the classification, labeling and packaging of substances and mixtures.

- 91/689 / EC directive on hazardous waste.

SECTION 16. OTHER INFORMATIONS

LIST OF SHORTCUTS:

REACH - registration, evaluation and authorization of chemicals.

SDS - safety data sheet.

EC number - the number assigned to a chemical in the European List of Existing Commercial Chemical Substances, in the European List of Notified Chemical Substances or in the list of chemical substances listed in the publication "No-longer polymers".

CAS - Chemical Abstracts Service registration number.

DNEL - the highest level of human exposure to the substance.

PNEC - predicted no-effect concentration.

PBT - persistent, bioaccumulative and toxic.

vPvB - very persistent and very bioaccumulative.

ADR - international convention concerning the carriage of goods and dangerous goods.

RID - regulations for the international carriage of dangerous goods by rail.

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

IMO / IMDG - a uniform international code for the transport of dangerous goods by sea.

IATA - air transport of dangerous goods.

The above safety data sheet is just for information purposes for persons working with expanded vermiculite. It aims to provide all informations for safe work with our product. It is the user's responsibility to satisfy itself as to the suitability and completeness of such information for theirown particular use.