



Material Safety Data Sheet (MSDS)

Doc No: Vermiculite

Doc Type: MSDS

Revision Date: N/A

Revision No. N/A

Issue Date: 16.10.2016

Vermiculite

Page: Page 1 of 5

1. Identification

In this section we give product name which will be listed on label as well as contact information of the manufacturer

Product Name: Expanded / Exfoliated Vermiculite

Class: Industrial grade

Synonyms: Expandable Mica, Magnesium-Aluminum-Iron-Silicate

MSDS Number: N/A Version : 1.0

Product Use Description: Horticulture, Soil Improver, Growing Media Additive, Insulation, Packing Material, Absorbent, Light Weight Aggregate, Construction, Fire Proofing, etc.

Company: Greenfield Eco Solutions Pvt. Ltd.

Main Telephone: 91-291-2711895

Website: www.greenfeldeco.com

Company Address

11/895 CHB

Nandanvan

Jodhpur 342008, India

2. Hazard(s) Identification

This section identifies the hazards of the chemical presented on the MSDS and the appropriate warning information associated with those hazards. When looking at the different classifications of the numbering starts at 1 (most hazardous) and ends at 5 (Least hazardous). The lower the number or letter, the more severe the hazard.

CLASSIFICATIONS

- Flammable – Category 5
- Aspiration Hazard – Category 5
- Carcinogenicity – Category 5
- Specific Target Organ Toxicity (Repeated Exposure) – Category 4
- Specific Target Organ Toxicity (Single Exposure) – Category 5
- Skin Irritation – Category 5
- Eye Irritation – Category 5
- Chronic Aquatic Toxicity – Category 5

PICTOGRAMS



3. Composition/Information on Ingredients

This section identifies the ingredient(s) contained in the product indicated on the MSDS, including impurities and stabilizing additives. This section includes information on substances, mixtures, and all chemicals where a trade secret is claimed. The required information consists of:

MAIN INGREDIENT:

Magnesium-Aluminium-Iron-Silicate	> 98 %
Silica	< 1 %
Calcite	< 1 %

4. First-Aid Measures

This section describes the initial care that should be given by untrained responders to an individual who has been exposed to the chemical.

EFFECTS OF OVEREXPOSURE

Routes of Entry: INHALATION - EYE CONTACT - SKIN CONTACT - INGESTION

Carcinogenic Status: NONE

EYES: May cause irritation (tear formation and redness) if Vermiculite dust gets into eyes.

SKIN: Not absorbed by the skin. May cause dryness if prolonged exposure.

INGESTION: Not harmful but may cause irritation of mouth, throat and stomach.

INHALATION: No specific long-term health effects have been identified. However, inhalation of high concentrations of vermiculite dust over prolonged periods of time may cause a benign pneumoconiosis.

Other Health Warnings: Not Available.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE

Pre-existing lung and skin conditions may possibly be aggravated by exposure to the components of this product. Remove a sensitive worker from further exposure to Vermiculite dust.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush eyes with generous quantities of water/eye rise saline solution. Consult physician if irritation persists.

SKIN: Wash thoroughly with mild soap and water. Seek medical attention if irritation develops. Remove any contaminated clothing and wash thoroughly before reuse.

INGESTION: Drink generous amounts of water to reduce bulk and drying effects.

INHALATION: Remove person from exposure to fresh air. If breathing has stopped, perform artificial respiration and get medical attention immediately. Keep person warm and at rest. Treat symptomatically and supportively.

Emergency Eye Wash: When there is a possibility that an employee's eyes may be exposed to bulk quantities or high concentrations of air borne dust of this substance the employer should provide an eye wash fountain within the immediate work area for emergency.

Use of appropriate PPE can limit contact as needed – long pants, sleeves, gloves, eye shields, p100 respirator.

5. Fire-Fighting Measures

This section provides recommendations for fighting a fire caused by the chemical

Extinguishing Media: Not readily combustible.
Special Hazards of Product: None.
Protective Equipment for Fire Fighting: None.

6. Accidental Release Measures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Vacuum clean dust. Use dust suppressant such as water if sweeping is necessary.
Not considered as hazardous.

WASTE DISPOSAL

Place waste and spillage in closed containers. Dispose in accordance with central, state and/or local regulations

7. Handling and Storage

This section provides guidance on the safe handling practices and conditions for safe storage of chemicals.

Handling: Minimize dust generation. Avoid contact with eyes. Avoid breathing dust. Repair or dispose of damaged bags. Wet mopping or vacuuming is recommended to clean up any dust generated during handling or processing.

Storage: Store in a dry place to maintain packaging integrity and product quality. Avoid wind dispersal.

Caution: Vermiculite is slippery when wet.

8. Exposure Controls/Personal Protection

This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure.

Engineering Control Measures: Engineering methods to prevent or control exposure are preferred. If they are not effective, then suitable personal protective methods should be used.

Respiratory Protection: The specific respirator selection must be based on the airborne concentration found in the work place and must not exceed the working limits of the respirator.

Hand Protection: Protective gloves are not required, but may be worn to prevent skin dryness or irritation.

Eye Protection: Dust tight goggles.

Body Protection: Normal work wear. All soiled or dirty clothing and PPE should be thoroughly cleaned and used.

OES for Respirable Vermiculite Dust: 5 mg/m³ in an 8 hours time weighted average reference period.

Emergency Eye Wash: When there is a possibility that an employee's eyes may be exposed to bulk quantities or high concentrations of air borne dust of this substance the employer should provide an eye wash fountain within the immediate work area for emergency.

9. Physical and Chemical Properties

This section identifies physical and chemical properties associated with the substance or mixture

Physical State and Odor: Solid, odorless
Color: Golden-Brown Flakes, Granules or Powder
Specific Gravity: 2.3-2.6
pH: 7-9
Solubility in Water: < 1 %
Flammability: Not flammable
Melting Point: 1260-1370^o C

10. Stability and Reactivity

This section describes the reactivity hazards of the chemical and the chemical stability information.

Stability: Stable under normal temperatures and pressures.
Incompatibility: Do not store with strong acids and reducing agents.
Reactivity: No dangerous reactions are known.
Hazardous Polymerization: None. Product is stable even up to 1300^o C.

CONDITIONS TO AVOID

Provide ventilation sufficient to prevent exceeding recommended exposure limits.
Keep containers closed and in a cool, well-ventilated area

11. Toxicological Information

This section identifies toxicological and health effects information or indicates that such data are not available.

There are no substances of toxicological significance contained in this product.

12. Ecological Information (non-mandatory)

This section provides information to evaluate the environmental impact of the chemical(s) if it were released to the environment.

Vermiculite is generally considered inert. It is not toxic to the environment. There are no known ecological problems associated with this product.

13. Disposal Considerations (non-mandatory)

This section provides guidance on proper disposal practices, recycling or reclamation of the chemical(s) or its container, and safe handling practices.

Product Disposal: Not considered hazardous waste. Place wastage and spills in closed containers. Dispose of in

accordance with all applicable local and national regulations.

14. Transport Information (non-mandatory)

This section provides guidance on classification information for shipping and transporting of hazardous chemical(s) by road, air, rail or sea.

UN NO.: NA, UN CLAUSE: NA

UN PACKAGES: As for transport, avoid direct sunlight, load not to cause container breakages, corrosion, leakages and prevent a collapse of cargo. Avoid overloading.

IATA: Not regulated, under dangerous goods ICAO as per IATA regulations.

ICAO: Not regulated, under dangerous goods as per IATA regulated.

15. Regulatory Information (non-mandatory)

This section identifies the safety, health, and environmental regulations specific for the product that is not indicated anywhere else on the MSDS.

Dangerous Substances Directive 67/548/EEC and Dangerous Preparation Directive 88/379/EEC. These regulations do not apply.

16. Other Information

This section indicates when the MSDS was prepared or when the last known revision was made. The MSDS may also state where the changes have been made to the previous version.

This MSDS is an overview at the date of issue about the chemical, physical and biological properties of this product, safety hazards of the material and general guidance on how to safely handle the material in the occupational and natural environment. When further technical information is required on this Material Safety Data Sheet (MSDS), please contact Greenfield Eco Solutions Pvt. Ltd.