

Material Safety Data Sheet (MSDS)

Mica (Muscovite / Phlogopite)

Chemical Name: Mica (Potassium / Magnesium Alumino-silicate) | CAS No. 12001-26-2

1. Identification of the Substance and Supplier

Product Name	Mica (Muscovite / Phlogopite)
Chemical Family	Alkali / magnesium alumino-silicate (mica group)
CAS No.	12001-26-2 (mica); muscovite 12001-26-2; phlogopite 12251-00-2
Synonyms	Mica, muscovite, phlogopite, ground mica, sheet mica, mica powder
Product Use	Cosmetics, paints, plastics, electrical insulation, joint compounds, foundry
Supplier	Ochnology Solution Pvt. Ltd., B-153, Sector-4 Defence Colony, Dehradun, Uttarakhand, India – 248001
Contact	projects@ochnology.com bd@ochnology.com

2. Hazards Identification

GHS Classification: Mica is generally not classified as hazardous under GHS. Dust may cause mechanical irritation. Product may contain free crystalline silica (quartz); respirable crystalline silica dust is hazardous (IARC Group 1). **Signal word:** WARNING (dust).

- Mica itself is not classified as a hazardous substance under GHS
- Dust may cause mechanical irritation to eyes, skin, and respiratory tract
- Prolonged inhalation of mica dust may cause pneumoconiosis (mica-related lung disease)
- May contain variable amounts of free crystalline silica (quartz) as a natural impurity
- Inhaled crystalline silica is classified as carcinogenic to humans (IARC Group 1)

3. Composition / Information on Ingredients

Component	CAS No.	Concentration
Mica (Muscovite / Phlogopite)	12001-26-2	>90%
Free Crystalline Silica (Quartz)	14808-60-7	Variable (typically low)
Iron, magnesium & other oxides	Various	Balance

4. First-Aid Measures

Inhalation: Move to fresh air. Seek medical attention if respiratory irritation or breathing difficulty persists.

Skin Contact: Wash with soap and water. Generally non-irritating.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present. Seek medical attention if irritation persists.

Ingestion: Rinse mouth with water. Mica is inert; seek medical attention if discomfort occurs.

5. Fire-Fighting Measures

- Non-combustible material; does not present a fire or explosion hazard
- Use extinguishing media appropriate to the surrounding fire
- No special protective equipment required for the material itself
- Firefighters should wear standard protective gear for the surrounding fire

6. Accidental Release Measures

- Avoid generating airborne dust during clean-up
- Collect using wet methods or vacuum with HEPA filtration where possible
- Wear appropriate PPE (respirator, goggles, gloves) during clean-up
- Place collected material in suitable labelled containers for reuse or disposal

7. Handling and Storage

- Minimise dust generation; use local exhaust ventilation
- Avoid inhalation of dust – may contain respirable crystalline silica
- Use appropriate respiratory protection where dust limits may be exceeded
- Store in a dry, covered area; keep bags / sheets protected from moisture

8. Exposure Controls / Personal Protection

- Mica (respirable dust, <1% quartz): 3 mg/m³ (8-hr TWA) – typical reference value
- Respirable crystalline silica (if present) OEL: 0.05 mg/m³ (8-hr TWA) – typical reference
- Provide local exhaust ventilation where dust is generated
- Respiratory protection (N95/P2), safety goggles, gloves, and suitable work clothing

9. Physical and Chemical Properties

Property	Value
----------	-------

Appearance	White / silvery / pale (muscovite) to brown (phlogopite) flakes or powder
Odour	Odourless
pH (in suspension)	Approx. 7 – 9
Melting Point	Approx. 1,250 – 1,300°C (decomposes)
Solubility in Water	Insoluble
Bulk Density	Approx. 0.2 – 1.0 g/cm ³ (form dependent)

10. Stability and Reactivity

- Stable under normal conditions of storage and use
- Chemically inert; excellent thermal and electrical resistance
- Incompatible with hydrofluoric acid and strong fluorinating agents
- No hazardous polymerization occurs

11. Toxicological Information

- Low acute toxicity; mica is inert and not significantly absorbed
- Prolonged inhalation of mica dust may cause pneumoconiosis
- Respirable crystalline silica (if present) – repeated inhalation can cause silicosis
- Crystalline silica (inhaled) is classified by IARC as Group 1 (carcinogenic to humans)

12. Ecological Information

- Not classified as hazardous to the aquatic environment
- Naturally occurring inert mineral; no significant bioaccumulation
- No significant ecological effects expected under normal use
- Avoid release of large quantities of dust into the environment

13. Disposal Considerations

- Dispose of in accordance with local, state, and national regulations
- Inert material; may be disposed of as non-hazardous solid waste where permitted
- Preferably reuse or recycle; avoid dust release during disposal

14. Transport Information

UN Number	Not regulated
Proper Shipping Name	Not classified as dangerous goods
Hazard Class	Not applicable
Packing Group	Not applicable
Remarks	Not regulated for transport by road, rail, sea, or air

15. Regulatory Information

- Mica not classified as hazardous under GHS
- Respirable crystalline silica content subject to occupational exposure regulations
- Cosmetic grades: comply with EU 1223/2009 and applicable cosmetic regulations
- Listed on major chemical inventories as mica (CAS 12001-26-2)

16. Other Information

This MSDS has been prepared in accordance with the GHS 16-section format and covers muscovite and phlogopite mica in ground, sheet, splittings, coated, and cosmetic forms. While mica itself is low-hazard, natural mica may contain free crystalline silica; appropriate dust controls and respiratory protection should be used. Information relates to the specific material designated.

Disclaimer: The information in this MSDS is provided in good faith and is based on current knowledge. It is intended as a guide for safe handling, use, storage, and disposal, and is not a warranty of quality. Ochnology Solution Pvt. Ltd. accepts no liability for loss or damage arising from its use. Users are responsible for ensuring suitability and safety for their own conditions of use.