

Material Safety Data Sheet (MSDS)

Product Name: Clove Leaf Extract Powder 98%-Eugenol

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

Rawpharma Biz Pvt Ltd

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1. Identification of the Substance/Preparation and Company

Product Name: Clove Leaf Extract Powder 98%-Eugenol

Synonyms: Eugenol Powder, Clove Oil Extract, Syzygium aromaticum Extract

Chemical Formula: $C_{10}H_{12}O_2$

Molecular Weight: 164.20 g/mol

Recommended Use: Used in flavoring, fragrance, pharmaceuticals, cosmetics, and as a natural antimicrobial agent.

2. Hazard Identification

- **Classification:** Irritant to eyes and skin; may cause respiratory irritation.
- **Hazard Statements:**
 - H315: Causes skin irritation.
 - H319: Causes serious eye irritation.
 - H335: May cause respiratory irritation.

- **Signal Word:** Warning
- **Precautionary Statements:**
 - Avoid contact with eyes, skin, and clothing.
 - Use only in well-ventilated areas.
 - Wear protective gloves and eye protection.

3. Composition / Information on Ingredients

This product is composed primarily of Eugenol (CAS No. 97-53-0) with a purity of not less than 98%. The remaining portion (up to 2%) consists of other natural constituents derived from the clove leaf extraction process. These trace components are naturally occurring plant materials and are not considered hazardous under normal conditions of use.

4. First Aid Measures

- **Eye Contact:** Rinse immediately with plenty of water for at least 15 minutes. Seek medical attention.
- **Skin Contact:** Wash with soap and water. Remove contaminated clothing.
- **Inhalation:** Move to fresh air. Seek medical attention if irritation persists.
- **Ingestion:** Rinse mouth with water. Do not induce vomiting; seek medical attention immediately.

5. Fire Fighting Measures

- **Suitable Extinguishing Media:** Use foam, dry chemical powder, or CO₂.
- **Specific Hazards:** Combustible organic material; may produce carbon oxides upon combustion.
- **Protective Equipment:** Firefighters should wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

- **Personal Protection:** Wear gloves, goggles, and protective clothing.

- **Environmental Precautions:** Avoid release to soil or waterways.
 - **Clean-up Procedure:** Sweep up powder carefully, avoid dust formation, and dispose of in approved containers.
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7. Handling and Storage

- **Handling:** Avoid contact with skin, eyes, and clothing. Avoid inhalation of dust.
 - **Storage:** Store in a tightly closed container, in a cool, dry, and well-ventilated area away from direct sunlight and heat sources.
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8. Exposure Controls / Personal Protection

- **Engineering Controls:** Provide adequate ventilation.
 - **Personal Protection:**
 - **Eye Protection:** Safety goggles.
 - **Skin Protection:** Gloves and protective clothing.
 - **Respiratory Protection:** Dust mask if dust formation occurs.
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9. Physical and Chemical Properties

- **Appearance:** Light brown to off-white free-flowing powder
 - **Odor:** Characteristic clove-like aroma
 - **Solubility:** Slightly soluble in water; soluble in alcohol and oils
 - **Boiling Point:** ~254°C (for Eugenol)
 - **Melting Point:** 10–12°C
 - **Flash Point:** 110°C (closed cup)
 - **pH (1% solution):** 5.5–6.5
 - **Bulk Density:** 0.45–0.60 g/cm³
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10. Stability and Reactivity

- **Stability:** Stable under normal storage and handling conditions.

- **Conditions to Avoid:** Heat, open flames, and exposure to sunlight.
- **Incompatible Materials:** Strong oxidizing agents.
- **Decomposition Products:** Carbon dioxide and carbon monoxide on combustion.

11. Toxicological Information

- **Acute Toxicity:** LD₅₀ (oral, rat) ≈ 2680 mg/kg (for Eugenol)
- **Skin Corrosion/Irritation:** Causes mild to moderate irritation.
- **Eye Damage/Irritation:** Causes eye irritation.
- **Sensitization:** May cause allergic skin reactions in sensitive individuals.
- **Chronic Effects:** Prolonged exposure may cause dermatitis or respiratory irritation.

12. Ecological Information

- **Ecotoxicity:** Low environmental toxicity expected.
- **Persistence and Degradability:** Biodegradable.
- **Bioaccumulative Potential:** Not expected to bioaccumulate significantly.
- **Mobility in Soil:** Low.

13. Disposal Considerations

- **Waste Disposal:** Dispose of in accordance with local, regional, and national regulations.
- **Packaging Disposal:** Dispose of packaging responsibly to prevent environmental contamination.

14. Transport Information (Detailed)

UN Number: Not regulated

UN Proper Shipping Name: Not applicable (Non-hazardous for transport)

Transport Hazard Class: Not classified as hazardous under transport regulations

Packing Group: Not applicable

Environmental Hazards: Not classified as environmentally hazardous

Special Precautions for User:

- Ensure containers are tightly closed and properly labeled during transport.
- Protect from physical damage and moisture.
- Avoid exposure to extreme heat or direct sunlight.

Transport by Road (ADR/RID): Not regulated

Transport by Air (IATA): Not regulated

Transport by Sea (IMDG): Not regulated

Transport in Bulk (as per MARPOL/IBC Code): Not applicable

Remarks: Product is stable and safe for transport under normal conditions. Handle with care to prevent package rupture or spillage.

15. Regulatory Information

- **Regulation Compliance:**
 - Complies with REACH (EC 1907/2006)
 - Not listed as a hazardous chemical under GHS classification
 - Natural extract product, safe for use in cosmetics, food, and pharmaceuticals as per approved levels

16. Other Information

This information is based on our present knowledge and is intended to describe the product for safety, health, and environmental requirements only. It should not be construed as guaranteeing specific properties.

- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.