

L(-)Camphor Sulfonic Acid MSDS

1. Product Name and Identification

Product Name: [L\(-\)Camphor Sulfonic Acid](#)

CAS Number: 35963-20-3

Synonyms: (-)-10-Camphorsulfonic Acid

2. Composition/Ingredients

Chemical Name: L(-)Camphor Sulfonic Acid

Molecular Formula: C₁₀H₁₆O₄S

Molecular Weight: 232.3 g/mol

Concentration/Percentage: Pure material (≥ 98%)

3. Hazards Identification

Classification:

- Eye Damage/Irritation (Category 2)
- Skin Irritation (Category 2)
- Acute Oral Toxicity (Category 4)

Label Elements:

- **Signal Word:** Warning
- **Hazard Statements:**
 - Causes skin irritation
 - Causes serious eye irritation
 - Harmful if swallowed

Precautionary Statements:

- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Wash hands thoroughly after handling.
- Wear protective gloves and eye/face protection.

Potential Health Effects:

- **Eye Contact:** Causes redness, pain, and irritation.
- **Skin Contact:** May lead to dryness, redness, or irritation.
- **Inhalation:** May cause respiratory discomfort in dust or mist form.

- **Ingestion:** Harmful; may lead to gastrointestinal distress.

4. First Aid Measures

General Advice: Seek medical attention if symptoms persist. Show this safety data sheet to the doctor.

- **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present, then continue rinsing. Seek medical attention if irritation persists.
- **Skin Contact:** Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical advice if irritation occurs.
- **Inhalation:** Move to fresh air. If breathing is difficult, provide oxygen and seek medical attention immediately.
- **Ingestion:** Rinse mouth with water. Do not induce vomiting. Seek medical attention promptly.

5. Handling and Storage

Handling:

- Avoid contact with skin, eyes, and clothing.
- Do not inhale dust or vapor. Ensure adequate ventilation during use.
- Handle with care to prevent damage to containers.

Storage:

- Keep in a cool, dry place away from moisture.
- Store in a tightly-closed container.
- Protect from incompatible substances such as strong bases.

6. Exposure Controls/Personal Protection

Engineering Controls:

- Use adequate local exhaust ventilation to minimize exposure.

Personal Protective Equipment (PPE):

- **Eye Protection:** Safety goggles with side shields.
- **Skin Protection:** Chemical-resistant gloves (e.g., nitrile or neoprene).
- **Respiratory Protection:** If exposure limits are exceeded, use a NIOSH-approved respirator.
- **Clothing:** Wear protective clothing to prevent skin contact.

Exposure Limits: Not established for L(-)Camphor Sulfonic Acid. Work with caution and under controlled conditions.

7. Physical and Chemical Properties

- **Appearance:** White crystalline powder
- **Odor:** Slight characteristic odor
- **Melting Point:** 185-190°C (365-374°F)
- **Boiling Point:** Not applicable (decomposes)
- **Solubility:** Soluble in water and organic solvents like ethanol
- **pH:** Acidic (approximately 2-3 in a 10% solution)
- **Density:** ~1.4 g/cm³
- **Flash Point:** Non-flammable
- **Vapor Pressure:** Negligible at room temperature

8. Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Reactivity: Non-reactive under normal conditions.

Hazardous Reactions: No known hazardous polymerization.

Conditions to Avoid: Excessive heat, moisture, and strong bases.

Incompatible Materials: Strong oxidizing agents, strong bases.

Hazardous Decomposition Products: Sulfur oxides, carbon monoxide, and carbon dioxide under combustion.

9. Toxicological Information

Routes of Exposure: Skin, eyes, ingestion, inhalation.

Acute Toxicity:

- **Oral LD50 (rat):** Estimated ~1,400 mg/kg (moderately toxic).

Skin Corrosion/Irritation: Causes moderate irritation in exposed individuals.

Eye Damage/Irritation: Can cause significant irritation, tearing, and redness.

Chronic Effects: Prolonged exposure may cause dermatitis or respiratory irritation.

10. Disposal Considerations

Waste Disposal Methods:

Dispose of content/container in accordance with local, regional, national, and international regulations. Incineration at licensed facilities is recommended. Avoid disposal into drains or watercourses.

Always follow environmental regulations when handling and disposing of hazardous materials.

This Material Safety Data Sheet (MSDS) has been prepared with accurate and general safety information for L(-)Camphor Sulfonic Acid. It is the user's responsibility to ensure safe working conditions.