

DL-Camphorsulfonic Acid MSDS

Product Name and Identification

Product Name: [DL-Camphorsulfonic Acid](#)

CAS Number: 5872-08-2

Synonyms: 10-Camphorsulfonic acid, (1R,4S)-(+)-10-Camphorsulfonic acid

Recommended Use: Laboratory reagent, chemical synthesis intermediate

Restrictions on Use: Not for food, drug, or household use

Manufacturer/Supplier: [Insert Manufacturer Information Here]

Emergency Contact: [Insert Emergency Contact Information Here]

Composition/Ingredients

Chemical Identity: DL-Camphorsulfonic Acid

Synonyms: 10-Camphorsulfonic acid, (1R,4S)-(+)-10-Camphorsulfonic acid

Molecular Formula: C₁₀H₁₆O₄S

Molecular Weight: 232.30 g/mol

Concentration: 100%

Hazards Identification

GHS Classification:

- Skin Corrosion/Irritation (Category 2)
- Eye Damage/Irritation (Category 1)
- Specific Target Organ Toxicity – Single Exposure (Category 3)

GHS Label Elements:

- **Pictogram(s):**

□

- **Signal Word:** Danger

Hazard Statements:

- Causes skin irritation.
- Causes serious eye damage.
- May cause respiratory irritation.

Precautionary Statements:

- Avoid inhalation of dust, fumes, or vapors.
- Use personal protective equipment as required.
- Wash hands thoroughly after handling.
- Dispose of contents according to local regulations.

Other Hazards: Combustible dust may form during handling. Avoid creating static discharge.

First Aid Measures

Eye Contact: Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical advice immediately.

Skin Contact: Wash affected area thoroughly with soap and water. Remove contaminated clothing. Seek medical advice if skin irritation persists.

Inhalation: Move to fresh air. If breathing difficulties occur, call a physician immediately.

Ingestion: Rinse mouth thoroughly with water. Do NOT induce vomiting. Contact a doctor or poison control immediately.

Note to Physician: Treat symptomatically.

Handling and Storage

Handling:

- Avoid contact with skin, eyes, and clothing.
- Ensure good ventilation in work areas to minimize dust creation.
- Handle away from sources of heat, sparks, or open flames.

Storage:

- Store in a dry, cool, and well-ventilated area.
- Keep containers tightly sealed.
- Protect from moisture and incompatible materials such as strong oxidizing agents.

Special Notes: Store separately from reactive chemicals.

Exposure Controls/Personal Protection

Exposure Limits: No established occupational exposure limits.

Engineering Controls:

- Use local exhaust ventilation to minimize exposure to airborne particles.
- Install safety eyewash and shower stations in work areas.

Personal Protective Equipment (PPE):

- **Eyes:** Chemical safety goggles or full face shield.
- **Skin:** Chemical-resistant gloves and protective clothing.

- **Respiratory:** If dust or vapors exceed exposure limits, use an approved respirator.

Hygiene Measures:

- Wash hands thoroughly after handling.
- Avoid eating, drinking, or smoking in the work area.

Physical and Chemical Properties

- **Appearance:** White crystalline powder
- **Odor:** Faint camphor-like odor
- **Melting Point/Range:** 190–195°C (decomposition)
- **Boiling Point/Range:** Not applicable
- **Flash Point:** Non-flammable
- **Solubility:** Soluble in water, alcohol, and organic solvents
- **Specific Gravity:** 1.37 g/cm³ at 25°C
- **pH:** Acidic (typically around 1 in aqueous solution)
- **Vapor Pressure:** Negligible
- **Partition Coefficient (Log K_{ow}):** Not available

Stability and Reactivity

Chemical Stability: Stable under normal handling and storage conditions.

Reactivity: Not reactive under normal conditions of use.

Conditions to Avoid: Excessive heat, moisture, and incompatible materials.

Hazardous Decomposition Products: Sulfur oxides and other toxic fumes upon decomposition.

Possibility of Hazardous Reactions: No hazardous polymerization is expected.

Toxicological Information

Acute Toxicity:

- Limited data available. Low acute toxicity at standard exposure levels.

Skin Irritation: Causes irritation upon prolonged contact.

Eye Irritation: Severe eye irritant; may cause permanent damage if untreated.

Respiratory Sensitization: Dust inhalation may irritate the respiratory tract.

Chronic Exposure: No known significant adverse effects with chronic handling.

Carcinogenicity: Not classified as a carcinogen based on available data.

Disposal Considerations

Waste Disposal Methods:

Dispose of product and contaminated packaging in accordance with local, regional, and national regulations. Prevent release into the environment.

Special Notes for Disposal: Avoid dumping into drains or public waterways. Collect and manage spillage appropriately.

Disclaimer: The information in this document is based on the best available data as of the publication date. It is the user's responsibility to ensure safe handling and compliance with all relevant regulations and standards.