

Bromobenzene - MSDS

1. Product Name and Identification

Product Name: [Bromobenzene](#)

Chemical Formula: C₆H₅Br

Synonyms: Phenyl Bromide, Monobromobenzene

CAS Number: 108-86-1

Manufacturer/Supplier: [Insert Manufacturer Name]

Emergency Contact Information: [Insert Emergency Contact Details]

2. Composition/Ingredients

Substance: Bromobenzene

Chemical Name: Bromobenzene

CAS Number: 108-86-1

Percent by Weight: ≥ 99%

3. Hazards Identification

GHS Classification:

- Flammable liquid (Category 3)
- Acute toxicity - Oral (Category 4)
- Serious eye damage/eye irritation (Category 2A)
- Specific Target Organ Toxicity - Single Exposure (Category 3, Narcotic effects)

Signal Word: Warning

Hazard Statements:

- H226: Flammable liquid and vapor.
- H302: Harmful if swallowed.
- H319: Causes serious eye irritation.
- H336: May cause drowsiness or dizziness.

Precautionary Statements:

- P210: Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
- P261: Avoid breathing mist or vapors.
- P280: Wear protective gloves, clothing, and eye protection.
- P301+P312: If swallowed, contact a poison control center or physician if you feel unwell.
- P304+P340: If inhaled, remove person to fresh air and keep comfortable for breathing.

Potential Health Effects:

- **Eye Contact:** May cause irritation, redness, and watering.
- **Skin Contact:** Prolonged exposure may lead to irritation or dryness.
- **Inhalation:** Exposure to vapors may result in dizziness, headache, or respiratory irritation.
- **Ingestion:** Harmful if swallowed, may cause nausea, vomiting, or gastrointestinal distress.

4. First Aid Measures

General Advice: Seek medical attention if symptoms are severe or persist.

- **Eye Contact:** Rinse thoroughly with water for at least 15 minutes. Remove contact lenses if present and easy to do. Seek medical help.
- **Skin Contact:** Wash affected area with soap and water. Remove any contaminated clothing. If irritation persists, consult a physician.
- **Inhalation:** Move affected person to fresh air. Administer oxygen if breathing is difficult and seek medical attention if symptoms continue.
- **Ingestion:** Rinse the mouth with water. Do *not* induce vomiting. Contact a physician or poison control center immediately.

5. Handling and Storage

Handling:

- Avoid generating mist or vapor.
- Use in a well-ventilated area, away from open flames or heat sources.
- Do not eat, drink, or smoke while handling the product.

Storage:

- Store in a cool, dry, well-ventilated area.
- Keep container tightly closed when not in use.
- Store away from incompatible substances like strong oxidizers and acids.

6. Exposure Controls/Personal Protection

Exposure Limits:

- OSHA PEL (Permissible Exposure Limit): Not established specifically for Bromobenzene. Use caution with exposure.

Engineering Controls:

- Use proper ventilation, including local exhaust, to minimize exposure levels.

Personal Protective Equipment (PPE):

- **Eye Protection:** Safety goggles or glasses with side shields.
- **Skin Protection:** Wear chemical-resistant gloves such as nitrile or butyl rubber.
- **Respiratory Protection:** Use a NIOSH-approved respirator when exposure exceeds recommended limits or ventilation is inadequate.
- **Clothing:** Full protective clothing to minimize skin contact.

7. Physical and Chemical Properties

- **Appearance:** Clear, colorless liquid
- **Odor:** Sweet, aromatic odor
- **Boiling Point:** 156°C (312.8°F)
- **Melting Point:** -31°C (-23.8°F)
- **Flash Point:** 51°C (123.8°F) (closed cup)
- **Density:** 1.495 g/cm³ at 25°C
- **Vapor Pressure:** 5 mmHg at 20°C
- **Solubility:** Insoluble in water, soluble in organic solvents such as ethanol and ether
- **pH:** Not applicable

8. Stability and Reactivity

Chemical Stability: Stable under recommended storage and handling conditions.

Conditions to Avoid:

- Heat, flames, and other sources of ignition.
- Prolonged exposure to air or moisture may degrade the product.

Materials to Avoid:

- Strong oxidizing agents and strong acids.

Hazardous Decomposition Products:

- Thermal decomposition may release bromine fumes, hydrogen bromide, and carbon oxides (CO and CO₂).

9. Toxicological Information

Acute Toxicity:

- **Oral LD50 (Rat):** 1,400 mg/kg

- **Dermal LD50 (Rabbit):** > 2,000 mg/kg

Chronic Exposure:

- Long-term exposure may affect the central nervous system.

Irritation:

- Causes moderate skin and eye irritation on contact.

Symptoms of Exposure:

- Headache, dizziness, nausea, or respiratory distress if inhaled.
- Redness, itching, or dryness from skin or eye contact.

10. Disposal Considerations

Waste Disposal Methods:

Dispose of product and packaging in accordance with local, regional, and national regulations. Incineration at a certified facility may be appropriate for small quantities. Avoid contaminating waterways and soil.

Container Handling:

Ensure that containers are emptied thoroughly before disposal. Do not reuse or repurpose containers; treat as hazardous waste even when empty.