

MSDS# 03420

Section 1 - Chemical Product and Company Identification

MSDS Name: Bromobenzene
Catalog Numbers: AC106680000, AC106680010, AC106682500, B253-1
Synonyms: Monobromobenzene; Phenyl bromide; Bromobenzol.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 108-86-1
Chemical Name: Bromobenzene
%: 99
EINECS#: 203-623-8

Hazard Symbols:

XI N



Risk Phrases:

10 38 51/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Flammable liquid and vapor. Causes skin irritation. May be absorbed through intact skin. May cause liver damage. Marine pollutant. May cause eye and respiratory tract irritation. Target Organs: Liver, respiratory system, skin.

Potential Health Effects

Eye: May cause eye irritation.

Skin: Causes skin irritation. May be absorbed through the skin in harmful amounts. If absorbed, may cause liver injury.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. May cause narcotic effects in high concentration. May cause liver abnormalities. Vapors may cause dizziness or suffocation. May cause blood changes.

Chronic: Chronic exposure may cause liver damage.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If

Inhalation: breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. This chemical poses an explosion hazard. Flammable liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers.

Autoignition Temperature: 566 deg C (1,050.80 deg F)

Flash Point: 51 deg C (123.80 deg F)

Explosion Limits: Lower: .5%

Explosion Limits: Upper: 2.5%

NFPA Rating: health: 2; flammability: 2; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Avoid breathing vapor or mist.

Storage: Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Bromobenzene	none listed	none listed	none listed

OSHA Vacated PELs: Bromobenzene: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Ventilation fans and other electrical service must be non-sparking and have an explosion-proof design.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: colorless

Odor: aromatic odor

pH: Not available

Vapor Pressure: 3.3 mm Hg @ 20 deg C

Vapor Density: 5.41 (air=1)

Evaporation Rate: Not available

Viscosity: 1.124 cP 20 deg C

Boiling Point: 155 deg C (311.00°F)

Freezing/Melting Point: -31 deg C (-23.80°F)

Decomposition Temperature: Not available

Solubility in water: Insoluble

Specific Gravity/Density: 1.49

Molecular Formula: C₆H₅Br

Molecular Weight: 157.01

Section 10 - Stability and Reactivity

Chemical Stability:	Stable.
Conditions to Avoid:	Ignition sources, excess heat, confined spaces.
Incompatibilities with Other Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, hydrogen bromide.
Hazardous Polymerization	Has not been reported.

Section 11 - Toxicological Information

RTECS#:	CAS# 108-86-1: CY9000000
RTECS:	CAS# 108-86-1: Inhalation, mouse: LC50 = 21 gm/m ³ /2H; Inhalation, rat: LC50 = 20411 mg/m ³ ;
LD50/LC50:	Oral, mouse: LD50 = 2700 mg/kg; Oral, rabbit: LD50 = 3300 mg/kg; Oral, rat: LD50 = 2383 mg/kg;
Carcinogenicity:	Bromobenzene - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Bacteria: Phytobacterium phosphoreum: EC50 = 9.46 mg/L; 30 minutes; Microtox test; 15 degrees C

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: BROMOBENZENE

Hazard Class: 3

UN Number: UN2514

Packing Group: III

Canada TDG

Shipping Name: Bromobenzene

Hazard Class: 3

UN Number: UN2514

Packing Group: III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI N

Risk Phrases:

R 10 Flammable.

R 38 Irritating to skin.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 108-86-1: 2

Canada

CAS# 108-86-1 is listed on Canada's DSL List

Canadian WHMIS Classifications: B3, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 108-86-1 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 108-86-1 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 5/20/1999

Revision #5 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
