



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 03/23/2007  
Date Updated: 12/18/2006  
Version 1.60

### Section 1 - Product and Company Information

**Product Name** Benzyl bromide, reagent grade, 98%  
**Product Number** B17905  
**Brand** Aldrich Chemical

**Company** Sigma-Aldrich  
**Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 800-325-5832  
**Fax:** 800-325-5052

**Emergency Phone:** 314-776-6555

### Section 2 - Composition/Information on Ingredient

| Substance Name | CAS #    | SARA 313 | EC no     | Annex I Index Number |
|----------------|----------|----------|-----------|----------------------|
| BENZYL BROMIDE | 100-39-0 | No       | 202-847-3 | 602-057-00-2         |

**Formula** C<sub>7</sub>H<sub>7</sub>Br  
**Synonyms** Benzene, (bromomethyl)-, (Bromomethyl)benzene, Bromophenylmethane, alpha-Bromotoluene, omega-Bromotoluene

### Section 3 - Hazards Identification

#### Emergency Overview

Corrosive. Harmful.  
Causes burns. Harmful if swallowed.  
Lachrymator. Combustible. Target organ(s): Central nervous system. Unpleasant odor.

**HMIS Rating**  
Health: 2\* Flammability: 2 Reactivity: 1

**NFPA Rating**  
Health: 2 Flammability: 2 Reactivity: 1

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

### Section 4 - First Aid Measures

#### Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

#### Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

#### Dermal Exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

### Section 5 - Fire Fighting Measures

#### Conditions of Flammability

Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas.

**Flash Point:** 186.8 °F 86 °C

**Autoignition Temp:** N/A

#### Extinguishing Media

**Suitable**  
Carbon dioxide, dry chemical powder, or appropriate foam.

#### Unsuitable

Do not use water.

#### Firefighting

##### Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

##### Specific Hazard(s)

Combustible liquid. Emits toxic fumes under fire conditions.

### Section 6 - Accidental Release Measures

#### Procedure to be Followed in Case of Leak or Spill

Evacuate area. Shut off all sources of ignition.

#### Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

#### Methods for Cleaning Up

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

### Section 7 - Handling and Storage

#### Handling

##### User Exposure

Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

#### Storage

##### Suitable

Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

#### Special Requirements

Light sensitive. Moisture sensitive.

### Section 8 - Exposure Controls / PPE

#### Engineering Controls

Safety shower and eye bath. Use only in a chemical fume hood.

#### Personal Protective Equipment

##### Respiratory

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose

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combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

#### Hand

Compatible chemical-resistant gloves.

#### Eye

Chemical safety goggles.

#### Other

Faceshield (8-inch minimum).

#### General Hygiene Measures

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

### Section 9 - Physical/Chemical Properties

| Appearance                            | Color                  | Odor               |
|---------------------------------------|------------------------|--------------------|
| <b>Physical State</b><br>Clear liquid | Slightly brown-yellow  | Unpleasant odor.   |
| <b>Molecular Weight:</b>              | 171.04 AMU             |                    |
| <b>pH</b>                             | N/A                    |                    |
| <b>BP/BP Range</b>                    | 196 - 198 °C           |                    |
| <b>MP/MP Range</b>                    | -3 - -1 °C             |                    |
| <b>Freezing Point</b>                 | N/A                    |                    |
| <b>Vapor Pressure</b>                 | N/A                    |                    |
| <b>Vapor Density</b>                  | 5.8 g/l                |                    |
| <b>Saturated Vapor Conc.</b>          | N/A                    |                    |
| <b>SG/Density</b>                     | 1.44 g/cm <sup>3</sup> |                    |
| <b>Bulk Density</b>                   | N/A                    |                    |
| <b>Odor Threshold</b>                 | N/A                    |                    |
| <b>Volatile%</b>                      | N/A                    |                    |
| <b>VOC Content</b>                    | N/A                    |                    |
| <b>Water Content</b>                  | N/A                    |                    |
| <b>Solvent Content</b>                | N/A                    |                    |
| <b>Evaporation Rate</b>               | N/A                    |                    |
| <b>Viscosity</b>                      | N/A                    |                    |
| <b>Partition Coefficient</b>          | N/A                    |                    |
| <b>Decomposition Temp.</b>            | N/A                    |                    |
| <b>Flash Point °F</b>                 | 186.8 °F               | Method: closed cup |
| <b>Flash Point °C</b>                 | 86 °C                  | Method: closed cup |
| <b>Explosion Limits</b>               | N/A                    |                    |
| <b>Flammability</b>                   | N/A                    |                    |
| <b>Autoignition Temp</b>              | N/A                    |                    |
| <b>Refractive Index</b>               | 1.576                  |                    |
| <b>Solubility</b>                     | N/A                    |                    |

N/A = not available

### Section 10 - Stability and Reactivity

#### Stability

Stable

Stable.

#### Conditions of Instability

Light sensitive. Moisture sensitive.

#### Materials to Avoid

Bases, Alcohols, Amines, Oxidizing agents, Corrodes steel..

#### Hazardous Decomposition Products

##### Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide, Hydrogen bromide gas.

#### Hazardous Polymerization

##### Hazardous Polymerization

Will not occur.

### Section 11 - Toxicological Information

#### Route of Exposure

##### Skin Contact

Causes burns.

##### Skin Absorption

May be harmful if absorbed through the skin.

##### Eye Contact

Causes burns. Lachrymator.

##### Inhalation

Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful if inhaled.

##### Ingestion

May be harmful if swallowed.

#### Target Organ(s) or System(s)

Central nervous system.

#### Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

**RTECS Number:** XS7965000

#### Chronic Exposure - Mutagen

| Species | Dose      | Cell Type | Mutation test             |
|---------|-----------|-----------|---------------------------|
| Hamster | 30 UMOL/L | ovary     | Sister chromatid exchange |

### Section 12 - Ecological Information

No data available.

### Section 13 - Disposal Considerations

#### Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

### Section 14 - Transport Information

#### DOT

**Proper Shipping Name:** Benzyl bromide

**UN#:** 1737

**Class:** 6.1

**Packing Group:** Packing Group II

**Hazard Label:** Toxic substances.

**Hazard Label:** Corrosive

**PIH:** Not PIH

**IATA**

Proper Shipping Name: Benzyl bromide  
IATA UN Number: 1737  
Hazard Class: 6.1  
Packing Group: II

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**Section 15 - Regulatory Information**

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**EU Directives Classification****Symbol of Danger:** Xi**Indication of Danger**

Irritant.

**Risk Statements** R: 36/37/38

Irritating to eyes, respiratory system and skin.

**Safety Statements** S: 39

Wear eye/face protection.

**US Classification and Label Text****Indication of Danger**

Corrosive. Harmful.

**Risk Statements**

Causes burns. Harmful if swallowed.

**Safety Statements**

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**US Statements**

Lachrymator. Combustible. Target organ(s): Central nervous system. Unpleasant odor.

**United States Regulatory Information****SARA Listed:** No**TSCA Inventory Item:** Yes**Canada Regulatory Information****WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

**DSL:** Yes**NDSL:** No

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**Section 16 - Other Information**

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**Disclaimer**

For R&amp;D use only. Not for drug, household or other uses.

**Warranty**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.