

**Material Safety Data Sheet**

Version 3.0  
Revision Date 08/29/2009  
Print Date 08/09/2011

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : 4-(Trifluoromethylthio)bromobenzene

Product Number : 555495  
Brand : Aldrich

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832  
Fax : +1 800-325-5052  
Emergency Phone # : (314) 776-6555

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Formula :  $C_7H_4BrF_3S$   
Molecular Weight : 257.07 g/mol

| CAS-No.                                    | EC-No. | Index-No. | Concentration |
|--------------------------------------------|--------|-----------|---------------|
| <b>4-(Trifluoromethylthio)bromobenzene</b> |        |           |               |
| 333-47-1                                   | -      | -         | -             |

**3. HAZARDS IDENTIFICATION****Emergency Overview****OSHA Hazards**

Combustible Liquid

**Other hazards which do not result in classification**

Stench.

**HMIS Classification**

Health Hazard: 0  
Flammability: 2  
Physical hazards: 0

**NFPA Rating**

Health Hazard: 0  
Fire: 2  
Reactivity Hazard: 0

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes** May cause eye irritation.

**Ingestion**

May be harmful if swallowed.

**4. FIRST AID MEASURES****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point 83 °C (181 °F)

Ignition temperature no data available

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental precautions**

Do not let product enter drains.

**Methods for cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

**Storage**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

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

#### Hand protection

For prolonged or repeated contact use protective gloves.

#### Eye protection

Safety glasses with side-shields conforming to EN166

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

|        |            |
|--------|------------|
| Form   | liquid     |
| Colour | colourless |
| Odour  | Stench.    |

### Safety data

|                       |                                    |
|-----------------------|------------------------------------|
| pH                    | no data available                  |
| Melting point         | no data available                  |
| Boiling point         | 199 - 200 °C (390 - 392 °F) - lit. |
| Flash point           | 83 °C (181 °F)                     |
| Ignition temperature  | no data available                  |
| Lower explosion limit | no data available                  |
| Upper explosion limit | no data available                  |
| Density               | 1.71 g/mL at 25 °C (77 °F)         |
| Water solubility      | no data available                  |

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides, Hydrogen fluoride, Borane/boron oxides

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

no data available

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Signs and Symptoms of Exposure**

Nausea, Dizziness, Headache

**Potential Health Effects**

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| <b>Inhalation</b> | May be harmful if inhaled. May cause respiratory tract irritation.  |
| <b>Skin</b>       | May be harmful if absorbed through skin. May cause skin irritation. |
| <b>Eyes</b>       | May cause eye irritation.                                           |
| <b>Ingestion</b>  | May be harmful if swallowed.                                        |

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

no data available

**Further information on ecology**

no data available

**13. DISPOSAL CONSIDERATIONS****Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION****DOT (US)**

UN-Number: 3334 Class: 9

Proper shipping name: Aviation regulated liquid, n.o.s. (4-(Trifluoromethylthio)bromobenzene)

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG**

Not dangerous goods

**IATA**

UN-Number: 3334 Class: 9

Proper shipping name: Aviation regulated liquid n.o.s. (4-(Trifluoromethylthio)bromobenzene)

**15. REGULATORY INFORMATION****OSHA Hazards**

Combustible Liquid

**DSL Status**

This product contains the following components that are not on the Canadian DSL nor NDSL lists.

|                                     |                     |
|-------------------------------------|---------------------|
| 4-(Trifluoromethylthio)bromobenzene | CAS-No.<br>333-47-1 |
|-------------------------------------|---------------------|

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Fire Hazard

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

|                                     |                     |               |
|-------------------------------------|---------------------|---------------|
| 4-(Trifluoromethylthio)bromobenzene | CAS-No.<br>333-47-1 | Revision Date |
|-------------------------------------|---------------------|---------------|

**New Jersey Right To Know Components**

|                                     |                     |               |
|-------------------------------------|---------------------|---------------|
| 4-(Trifluoromethylthio)bromobenzene | CAS-No.<br>333-47-1 | Revision Date |
|-------------------------------------|---------------------|---------------|

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

**16. OTHER INFORMATION****Further information**

Copyright 2009 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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 Co., 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.