

## Material Safety Data Sheet

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Version 1.1

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

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1 - Product and Company Information

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|                   |                                                                                  |
|-------------------|----------------------------------------------------------------------------------|
| Product Name      | 1,4-DIBROMOBENZENE, 98%                                                          |
| Product Number    | D39029                                                                           |
| Company           | Sigma-Aldrich Pty. Ltd.<br>12 Anella Avenue<br>Castle Hill NSW 2154<br>Australia |
| Technical Phone # | +61 2 9841 0555 (1800 800 097)                                                   |
| Fax               | +61 2 9841 0500 (1800 800 096)                                                   |
| Emergency Phone # | +44 8701906777 (1800 448 465)                                                    |

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2 - Composition/Information on Ingredients

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| Product Name       | CAS #                                                                                          | EC no     | Annex I<br>Index Number |
|--------------------|------------------------------------------------------------------------------------------------|-----------|-------------------------|
| 1,4-DIBROMOBENZENE | 106-37-6                                                                                       | 203-390-2 | None                    |
| Formula            | C6H4Br2                                                                                        |           |                         |
| Molecular Weight   | 235.92 AMU                                                                                     |           |                         |
| Synonyms           | Benzene, 1,4-dibromo- (9CI) * p-Bromophenyl<br>bromide * p-Dibromobenzene * 1,4-Dibromobenzene |           |                         |

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3 - Hazards Identification

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SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Irritating to eyes, respiratory system and skin.

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4 - First Aid Measures

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## AFTER INHALATION

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

## AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

## AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

## AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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5 - Fire Fighting Measures

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#### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

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

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### 6 - Accidental Release Measures

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#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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### 7 - Handling and Storage

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#### HANDLING

Directions for Safe Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing.

#### STORAGE

Conditions of Storage: Store in a cool dry place.

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### 8 - Exposure Controls / Personal Protection

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#### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

#### PERSONAL PROTECTIVE EQUIPMENT

Special Protective Measures: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

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### 9 - Physical and Chemical Properties

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|                       |                                          |                            |
|-----------------------|------------------------------------------|----------------------------|
| Appearance            | Color: Slightly yellow<br>Form: Crystals |                            |
| Property              | Value                                    | At Temperature or Pressure |
| pH                    | N/A                                      |                            |
| BP/BP Range           | 219 °C                                   | 760 mmHg                   |
| MP/MP Range           | 83 °C                                    |                            |
| Flash Point           | 100 °C                                   | Method: closed cup         |
| Flammability          | N/A                                      |                            |
| Autoignition Temp     | N/A                                      |                            |
| Oxidizing Properties  | N/A                                      |                            |
| Explosive Properties  | N/A                                      |                            |
| Explosion Limits      | N/A                                      |                            |
| Vapor Pressure        | N/A                                      |                            |
| SG/Density            | 1.841 g/cm <sup>3</sup>                  |                            |
| Partition Coefficient | N/A                                      |                            |
| Viscosity             | N/A                                      |                            |
| Vapor Density         | N/A                                      |                            |

|                       |     |
|-----------------------|-----|
| Saturated Vapor Conc. | N/A |
| Evaporation Rate      | N/A |
| Bulk Density          | N/A |
| Decomposition Temp.   | N/A |
| Solvent Content       | N/A |
| Water Content         | N/A |
| Surface Tension       | N/A |
| Conductivity          | N/A |
| Miscellaneous Data    | N/A |
| Solubility            | N/A |

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## 10 - Stability and Reactivity

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### STABILITY

Materials to Avoid: Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen bromide gas.

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## 11 - Toxicological Information

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RTECS NUMBER: CZ1791000

### ACUTE TOXICITY

LD50  
Oral  
Mouse  
3120 mg/kg

LD50  
Intraperitoneal  
Mouse  
1891 MG/KG

### SIGNS AND SYMPTOMS OF EXPOSURE

Repeated exposure can cause: Damage to the liver. Damage to the kidneys. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### ROUTE OF EXPOSURE

Inhalation: Material is irritating to mucous membranes and upper respiratory tract.

Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption. Causes eye and skin irritation.

### TARGET ORGAN INFORMATION

Damage to the liver. Damage to the kidneys.

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## 12 - Ecological Information

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No data available.

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## 13 - Disposal Considerations

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### SUBSTANCE DISPOSAL

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.

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## 14 - Transport Information

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### RID/ADR

Non-hazardous for road transport.

### IMDG

Non-hazardous for sea transport.

### IATA

Non-hazardous for air transport.

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## 15 - Regulatory Information

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### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xi

Irritant.

R-PHRASES: 36/37/38

Irritating to eyes, respiratory system and skin.

S-PHRASES: 26 36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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## 16 - Other Information

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### 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 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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