

## Material Safety Data Sheet

Date Printed: 14/JUN/2005

Date Updated: 13/MAR/2004

Version 1.2

According to 91/155/EEC

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

---

1 - Product and Company Information

---

|                   |  |
|-------------------|--|
| Product Name      | 2,5-DIAMINOTOLUENE SULFATE, 97%  |
| Product Number    | 154334   |
| 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)  |

---

---

2 - Composition/Information on Ingredients

---

| Product Name               | CAS #    | EC no     | Annex I<br>Index Number |
|----------------------------|----------|-----------|-------------------------|
| 2,5-DIAMINOTOLUENE SULFATE | 615-50-9 | 210-431-8 | 612-030-00-7            |

  

|                  |  |
|------------------|--|
| Formula          | C7H10N2.H2O4S  |
| Molecular Weight | 220.25 AMU   |
| Synonyms         | 1,4-Benzenediamine, 2-methyl-, sulfate (1:1)<br>(9CI * C.I. 76043 * p-Diaminotoluene sulfate *<br>2,5-Diaminotoluene sulfate * 2,5-Diaminotoluene<br>sulphate * 2-Methyl-1,4-benzenediamine sulfate<br>(1:1) * 2-Methyl-p-phenylenediamine sulphate *<br>Toluene-2,5-diamine sulphate * p-Toluenediamine<br>sulphate * Toluylene-2,5-diamine sulphate *<br>p-Toluylenediamine sulphate * p-Tolylenediamine<br>sulphate |

---

---

3 - Hazards Identification

---

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Harmful by inhalation and in contact with skin. Toxic if  
swallowed. May cause sensitization by skin contact. Toxic to  
aquatic organisms, may cause long-term adverse effects in the  
aquatic environment.

---

---

4 - First Aid Measures

---

## AFTER INHALATION

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

---

---

5 - Fire Fighting Measures

---

## EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate

foam.

#### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

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

---

### 6 - Accidental Release Measures

---

#### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

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

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

#### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust.

---

### 7 - Handling and Storage

---

#### HANDLING

Directions for Safe Handling: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

#### STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place.

---

### 8 - Exposure Controls / Personal Protection

---

#### ENGINEERING CONTROLS

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

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT

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

---

### 9 - Physical and Chemical Properties

---

|            |                                    |
|------------|------------------------------------|
| Appearance | Color: Light brown<br>Form: Powder |
|------------|------------------------------------|

| Property             | Value    | At Temperature or Pressure |
|----------------------|----------|----------------------------|
| pH                   | N/A      |                            |
| BP/BP Range          | N/A      |                            |
| MP/MP Range          | > 300 °C |                            |
| Flash Point          | N/A      |                            |
| 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            | N/A |
| 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 |

---

## 10 - Stability and Reactivity

---

### STABILITY

Materials to Avoid: Strong oxidizing agents, Strong bases.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

---

## 11 - Toxicological Information

---

RTECS NUMBER: XT0525000

### ACUTE TOXICITY

LD50  
Oral  
Rat  
98 mg/kg

LD50  
Intraperitoneal  
Rat  
49 MG/KG

### SIGNS AND SYMPTOMS OF EXPOSURE

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: Harmful if swallowed, inhaled, or absorbed through skin. Causes eye and skin irritation.

---

## 12 - Ecological Information

---

No data available.

---

## 13 - Disposal Considerations

---

### SUBSTANCE DISPOSAL

Observe all federal, state, and local environmental regulations.

---

## 14 - Transport Information

---

RID/ADR

UN#: 2811  
Class: 6.1  
PG: III  
Proper Shipping Name: Toxic solid, organic, n.o.s.

#### IMDG

UN#: 2811  
Class: 6.1  
PG: III  
Proper Shipping Name: Toxic solid, organic, n.o.s.  
Marine Pollutant: No  
Severe Marine Pollutant: No  
Technical Name: Required

#### IATA

UN#: 2811  
Class: 6.1  
PG: III  
Proper Shipping Name: Toxic solid, organic, n.o.s.  
Inhalation Packing Group I: No  
Technical Name: Required

---

### 15 - Regulatory Information

---

#### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 612-030-00-7

INDICATION OF DANGER: T N

Toxic. Dangerous for the environment.

R-PHRASES: 20/21 25 43 51/53

Harmful by inhalation and in contact with skin. Toxic if swallowed. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-PHRASES: 24 37 45 61

Avoid contact with skin. Wear suitable gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheets.

---

### 16 - Other Information

---

#### 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.

#### DISCLAIMER

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