

# SAFETY DATA SHEET

**Preparation Date:** No data available

**Revision Date:** 04/16/2015

**Revision Number:** G1

**Product identifier**

**Product code:** D2335  
**Product Name:** N,N-DIMETHYL-P-TOLUIDINE

**Other means of identification**

**Synonyms:** 4-Dimethylaminotoluene  
Benzenamine, N,N,4-trimethyl-  
Dimethyl-p-toluidine  
Dimetil-p-toluidina (Italian)  
N,N,4-trimethylaniline  
N,N-Dimethyl-4-methylaniline  
N,N-Dimethyl-p-toluidine  
N,N-Dimethyl-p-tolylamine  
p,N,N-Trimethylaniline  
p-(Dimethylamino)toluene  
p-Methyl-N,N-dimethylaniline  
UN 2810

**CAS #:** 99-97-8  
**RTECS #** XU5803000  
**Cl#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** In dental cement.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemicals and Laboratory Products, Inc.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

## 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Gases)	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3

Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 4

### Label elements

#### Danger

#### Hazard statements

Toxic if swallowed  
 Toxic in contact with skin  
 Toxic if inhaled  
 May cause damage to organs through prolonged or repeated exposure  
 Combustible liquid



#### Hazards not otherwise classified (HNOC)

Not Applicable

#### Other hazards

Harmful to aquatic life with long lasting effects

#### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Keep cool

#### Precautionary Statements - Response

Specific treatment (see .? on this label)  
 Get medical advice/attention if you feel unwell  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish.  
 Call a POISON CENTER or doctor/physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 Rinse mouth

#### Precautionary Statements - Storage

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

N,N-Dimethyl-p-toluidine 99-97-8	99-97-8	100	*
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### 4. FIRST AID MEASURES

#### First aid measures

#### **General Advice:**

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126).

#### **Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention.

#### **Eye Contact:**

Flush eye with water for 15 minutes. Get medical attention.

#### **Inhalation:**

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Immediate medical attention is required.

#### **Ingestion:**

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention. Call a physician immediately.

#### **Most important symptoms and effects, both acute and delayed**

#### **Symptoms**

Toxic if swallowed. Toxic by inhalation. Causes skin irritation. Causes eye irritation.

#### **Indication of any immediate medical attention and special treatment needed**

#### **Notes to Physician:**

Treat symptomatically

#### **Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

### 5. FIRE-FIGHTING MEASURES

#### **Extinguishing Media**

#### **Suitable Extinguishing Media:**

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

#### **Unsuitable Extinguishing Media:**

No information available.

#### **Specific hazards arising from the chemical**

#### **Hazardous Combustion Products:**

Carbon oxides

#### **Specific hazards:**

Combustible material  
May be ignited by heat, sparks or flames  
Non-flammable in presence of shocks

#### **Special Protective Actions for Firefighters**

#### **Specific Methods:**

No information available.

#### **Special Protective Equipment for Firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Use personal protective equipment. Avoid contact with skin, eyes and clothing. All equipment used when handling the product must be grounded. Pay attention to flashback. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Use a vapor suppressing foam to reduce vapors; do not put water directly on leak, spill area or inside container.

**Environmental precautions** Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. Keep away from incompatible materials. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

#### Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Keep away from heat and sources of ignition. Use only in well-ventilated areas. Take measures to prevent the build up of electrostatic charge. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### Technical Measures/Storage Conditions:

Keep containers tightly closed in a dry, cool and well-ventilated place. Store at 2-8 deg. C. Keep away from heat and sources of ignition. Store away from incompatible materials. Store in a segregated and approved area.

#### Incompatible Materials:

Acids. Acid chlorides. Acid anhydrides. Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### National occupational exposure limits

##### United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
N,N-Dimethyl-p-toluidine - 99-97-8	None	None	None	None

##### Canada

Components	Alberta	British Columbia	Ontario	Quebec
N,N-Dimethyl-p-toluidine - 99-97-8	None	None	None	None

## Australia and Mexico

Components	Australia	Mexico
N,N-Dimethyl-p-toluidine 99-97-8	None	None

### Appropriate engineering controls

**Engineering measures to reduce exposure:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

- Eye protection:** Goggles.
- Skin and body protection:** Chemical resistant protective suit. Gloves.
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Liquid	<b>Appearance:</b> No information available	<b>Color:</b> Colorless to pale yellow.
<b>Odor:</b> Characteristic.	<b>Taste</b> No information available	<b>Molecular/Formula weight:</b> 135.21 g/mol
<b>Formula:</b> C9-H13-N	<b>Flash point (°C):</b> 83°C	<b>Flashpoint (°C/°F):</b> 83°C/ 181.4°F
<b>Flash Point Tested according to:</b> Closed cup	<b>Lower Explosion Limit (%):</b> 1.2%	<b>Upper Explosion Limit (%):</b> 7%
<b>Autoignition Temperature (°C/°F):</b> No information available	<b>pH:</b> No information available	<b>Melting point/range(°C/°F):</b> -25°C/ -13°F
<b>Boiling point/range(°C/°F):</b> 211/ 411.8°F	<b>Decomposition temperature(°C/°F):</b> No information available	<b>Bulk density:</b> No information available
<b>Specific gravity:</b> 0.937	<b>Vapor pressure @ 20°C (kPa):</b> 0.001	<b>Density (g/cm3):</b> 0.94
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> 5.42	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> No information available	<b>Viscosity:</b> No information available
<b>Miscibility:</b> Miscible with Ether Miscible with Ethanol	<b>Solubility:</b> Insoluble in cold water Insoluble in hot water Soluble in Carbon tetrachloride	

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with acids, acid chlorides, acid anhydrides, strong oxidizing agents

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:** Acids. Acid chlorides. Acid anhydrides. Strong oxidizing agents.

**Hazardous decomposition products:** Carbon oxides. Nitrogen oxides (NO<sub>x</sub>).

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Principal Routes of Exposure:**

Skin. Eyes.

### Acute Toxicity

#### **Component Information**

*N,N-Dimethyl-p-toluidine - 99-97-8*

**LD50/oral/rat** = 980 mg/kg Oral LD50 Rat

**LD50/oral/mouse** = 139 mg/kg Oral LD50 Mouse

**LD50/dermal/rat** = >2000mg/kgDermal LD50Rat

**LD50/dermal/rabbit** = > 2000 mg/kg Dermal LD50 Rabbit

**LC50/inhalation/rat** = 1400 mg/m<sup>3</sup> Inhalation LC50 Rat 4 h

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50information** = No information available

#### **Product Information**

**LD50/oral/rat =**

**VALUE- Acute Tox Oral** = 980mg/kg

**LD50/oral/mouse =**

**Value - Acute Tox Oral** = 138mg/kg

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal** = > 2000mg/kg

**LD50/dermal/rat**

**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = 1400 mg/m<sup>3</sup>**LC50/Inhalation/mouse**

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

**Symptoms****Skin Contact:** May cause skin irritation. May be harmful in contact with skin.**Eye Contact:** May cause eye irritation.**Inhalation** May cause respiratory tract irritation. It may affect respiration (respiratory stimulation). May cause dyspnea (difficulty breathing or shortness of breath).**Ingestion** May cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea. May affect behavior/central nervous system (convulsions/seizures, somnolence), respiratory (dyspnea). Harmful if swallowed.**Aspiration hazard** No information available**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Chronic Toxicity** No information available**Sensitization:** No information available**Mutagenic Effects:** May affect genetic material**Carcinogenic effects:** Not considered carcinogenic

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
N,N-Dimethyl-p-toluidine	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

**Reproductive toxicity** No data is available**Reproductive Effects:** No information available**Developmental Effects:** No information available**Teratogenic Effects:** No information available**Specific Target Organ Toxicity****STOT - single exposure** No information available**STOT - repeated exposure** No information available**Target Organs:** No information available**12. ECOLOGICAL INFORMATION****Ecotoxicity**

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects:** Harmful to aquatic organisms.

*N,N-Dimethyl-p-toluidine - 99-97-8*

**Freshwater Fish Species Data:** 42-50.5 mg/L LC50 Pimephales promelas 96 h flow-through 1

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility:** No information available

## 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
N,N-Dimethyl-p-toluidine	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

**UN-No:** UN2810  
**Proper Shipping Name:** Toxic liquids, organic, n.o.s. (N,N-Dimethyl-p-toluidine)  
**Hazard Class:** 6.1  
**Subsidiary Risk:**  
**Packing Group:** III  
**ERG No:** 153  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available  
**Symbol(s):** G

### TDG (Canada)

**UN-No:** UN2810  
**Proper Shipping Name:** Toxic liquid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** No information available

### ADR

**UN-No:** UN2810  
**Proper Shipping Name:** Toxic liquid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Packing Group:** III

**Product code:** D2335

**Product name:** N,N-DIMETHYL-P-TOLUIDINE

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## 14. TRANSPORT INFORMATION

**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** No information available

### IMO / IMDG

**UN-No:** UN2810  
**Proper Shipping Name:** Toxic liquid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant:** No information available  
**EMS:** F-A  
**MFAG:** No information available  
**Maximum Quantity:** No information available

### RID

**UN-No:** UN2810  
**Proper Shipping Name:** Toxic liquid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Classification Code:** No information available  
**Description:** No information available

### ICAO

**UN-No:** UN2810  
**Proper Shipping Name:** Toxic liquid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** No information available

### IATA

**UN-No:** UN2810  
**Proper Shipping Name:** Toxic liquid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG Code:** 6L  
**Description:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>N,N-Dimethyl-p-toluidine</i>	Present	Present KE-34407	Present	Present (3)-191	Present	Present	Present 202-805-4

### U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Product code: D2335

Product name: N,N-DIMETHYL-P-TOLUIDINE

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**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
N,N-Dimethyl-p-toluidine	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
N,N-Dimethyl-p-toluidine	None	None	None	None	None

**U.S. TSCA**

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
N,N-Dimethyl-p-toluidine	Not Applicable	Not Applicable

**Canada****WHMIS hazard class:**

Non-controlled

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

Components	Canada (DSL)	Canada (NDSL)
N,N-Dimethyl-p-toluidine	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
N,N-Dimethyl-p-toluidine	Not listed	Not listed

**EU Classification****R-phrase(s)**

R33 - Danger of cumulative effects.

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R23/24/25 - Also toxic by inhalation, in contact with skin and if swallowed

**S -phrase(s)**

S28 - After contact with skin, wash immediately with plenty of water

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

S 1/2 - Keep locked up and out of the reach of children.  
S36/37 - Wear suitable protective clothing and gloves.

Components	Classification	Concentration Limits:	Safety Phrases
N,N-Dimethyl-p-toluidine	T; R23/24/25 R33 R52-53	25%≤C: T; R23/24/25-33-52-53 5%≤C<25%: T; R23/24/25-33 1%≤C<5%: Xn; R20/21/22-33	S1/2 S28 S36/37 S45 S61

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

T - Toxic



## 16. OTHER INFORMATION

## 16. OTHER INFORMATION

**Revision Date:** 04/16/2015  
**Prepared by:** Sonia Owen

**Disclaimer:** All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**