

**SAFETY DATA SHEET**

Creation Date 19-Apr-2012

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Revision Number 3

**1. Identification**

**Product Name** N,N-Dimethylaniline

**Cat No. :** L05173

**CAS No** 121-69-7  
**Synonyms** DMA

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

**Details of the supplier of the safety data sheet****Company**

Thermo Fisher Scientific Chemicals, Inc.  
30 Bond Street  
Ward Hill, MA 01835-8099  
Tel: 800-343-0660  
Fax: 800-322-4757

**Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
**Emergency Number US:**001-201-796-7100 / **Europe:** +32 14 57 52 99  
**CHEMTREC** Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

**2. Hazard(s) identification****Classification**

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

Flammable liquids	Category 4
Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity - Vapors	Category 3
Carcinogenicity	Category 2

**Label Elements****Signal Word**

Danger

**Hazard Statements**

Combustible liquid  
Suspected of causing cancer  
Toxic if swallowed, in contact with skin or if inhaled

**Precautionary Statements****Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep cool

**Response**

IF exposed or concerned: Get medical attention/advice

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Call a POISON CENTER or doctor/physician

**Skin**

IF ON SKIN: Wash with plenty of soap and water  
Call a POISON CENTER or doctor/physician if you feel unwell  
Remove/Take off immediately all contaminated clothing  
Wash contaminated clothing before reuse

**Ingestion**

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Rinse mouth

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Storage**

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

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Toxic to aquatic life with long lasting effects

### 3. Composition/Information on Ingredients

Component	CAS No	Weight %
Dimethylaniline	121-69-7	>95

### 4. First-aid measures

**Eye Contact**

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

**Inhalation**

Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial

	respiration. Immediate medical attention is required.
<b>Ingestion</b>	Call a physician immediately. Clean mouth with water.
<b>Most important symptoms and effects</b>	Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
<b>Notes to Physician</b>	Treat symptomatically

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Water mist may be used to cool closed containers. Water mist may be used to cool closed containers.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	63 °C / 145.4 °F
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	370 °C / 698 °F
<b>Explosion Limits</b>	
<b>Upper</b>	7.0%
<b>Lower</b>	1.2%
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

### Specific Hazards Arising from the Chemical

Combustible material. Containers may explode when heated.

### Hazardous Combustion Products

Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

### Protective Equipment and Precautions for Firefighters

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

### NFPA

**Health**  
3

**Flammability**  
2

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

<b>Personal Precautions</b>	Remove all sources of ignition. Take precautionary measures against static discharges.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system.

<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Wear self-contained breathing apparatus and protective suit. Do not let this chemical enter the environment. Remove all sources of ignition.
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## 7. Handling and storage

<b>Handling</b>	Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Do not ingest. If swallowed then seek immediate medical assistance. Handle product only in closed system or provide appropriate exhaust ventilation. Keep away from open flames, hot surfaces and sources of ignition.
<b>Storage.</b>	Keep away from heat, sparks and flame. Protect from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Acids. Strong oxidizing agents. Halogens. Acid anhydrides. Acid chlorides. Chloroformates.

## 8. Exposure controls / personal protection

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Dimethylaniline	TWA: 5 ppm STEL: 10 ppm Skin	(Vacated) TWA: 5 ppm (Vacated) TWA: 25 mg/m <sup>3</sup> (Vacated) TWA: 2 ppm (Vacated) TWA: 8 mg/m <sup>3</sup> (Vacated) STEL: 10 ppm (Vacated) STEL: 50 mg/m <sup>3</sup> Skin TWA: 5 ppm TWA: 25 mg/m <sup>3</sup>	IDLH: 100 ppm TWA: 5 ppm TWA: 25 mg/m <sup>3</sup> STEL: 10 ppm STEL: 50 mg/m <sup>3</sup>	TWA: 5 ppm STEL: 10 ppm

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

### Engineering Measures

Ensure adequate ventilation, especially in confined areas.

### Personal Protective Equipment

#### Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

#### Recommended Filter type:

Particulates filter conforming to EN 143. Ammonia and organic ammonia derivatives filter. Type K. Green. conforming to EN14387.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

Physical State	Liquid
Appearance	Yellow
Odor	Fishy
Odor Threshold	No information available
pH	7.4 1 g/l water
Melting Point/Range	1.5 - 2.5 °C / 34.7 - 36.5 °F
Boiling Point/Range	193 - 194 °C / 379.4 - 381.2 °F @ 760 mmHg
Flash Point	63 °C / 145.4 °F
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	7.0%
Lower	1.2%
Vapor Pressure	0.53 mbar @ 20 °C
Vapor Density	No information available
Specific Gravity	0.950
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available

Autoignition Temperature	370 °C / 698 °F
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C8 H11 N
Molecular Weight	121.18

## 10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Excess heat. Exposure to air. Exposure to light. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Acids, Strong oxidizing agents, Halogens, Acid anhydrides, Acid chlorides, Chloroformates
Hazardous Decomposition Products	Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dimethylaniline	LD50 = 951 mg/kg ( Rat )	LD50 = 1770 mg/kg ( Rabbit )	LC50 > 0.5 - 5.0 mg/L ( Rat ) 4 h

Toxicologically Synergistic Products	No information available
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	No information available
Sensitization	No information available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Dimethylaniline	121-69-7	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects	No information available
Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available.
STOT - single exposure	None known
STOT - repeated exposure	None known
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
Endocrine Disruptor Information	No information available

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

The product contains following substances which are hazardous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Dimethylaniline	EC50: = 340 mg/L, 96h (Desmodesmus subspicatus)	LC50: = 53.7 mg/L, 96h semi-static (Poecilia reticulata) LC50: = 51.1 mg/L, 96h semi-static (Brachydanio rerio) LC50: 0.183 - 0.186 mg/L, 96h (Brachydanio rerio) LC50: = 65.6 mg/L, 96h (Pimephales promelas) LC50: = 52.6 mg/L, 96h flow-through (Pimephales promelas)	EC50 = 110 mg/L 24 h EC50 = 13.6 mg/L 5 min EC50 = 14.6 mg/L 30 min	EC50: = 5 mg/L, 48h (Daphnia magna)

**Persistence and Degradability**

Persistence is unlikely

**Bioaccumulation/ Accumulation**

No information available.

**Mobility**

. Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Dimethylaniline	2.278

## 13. Disposal considerations

**Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

UN-No UN2253  
Hazard Class 6.1  
Packing Group II

**TDG**

UN-No UN2253  
Hazard Class 6.1  
Packing Group II

**IATA**

UN-No UN2253  
Proper Shipping Name N,N-DIMETHYLANILINE  
Hazard Class 6.1  
Packing Group II

**IMDG/IMO**

UN-No UN2253  
Proper Shipping Name N,N-DIMETHYLANILINE  
Hazard Class 6.1  
Packing Group II

## 15. Regulatory information

**United States of America Inventory**

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Dimethylaniline	121-69-7	X	ACTIVE	TP

**Legend:**

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TP - Indicates a substance that is the subject of a proposed TSCA Section 4 test rule

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b)** - Notices of Export Not applicable

**International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Dimethylaniline	121-69-7	X	-	204-493-5	X	X	X	X	X	KE-05-0532

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting thresholds
Dimethylaniline	121-69-7	>95	1.0 %	-

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)** Not applicable

**Clean Air Act**

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Dimethylaniline	X		-

**OSHA** - Occupational Safety and Health Administration Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
Dimethylaniline	100 lb	-	100 lb 45.4 kg

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Dimethylaniline	X	X	X	X	X

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
 DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH**

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Dimethylaniline	121-69-7	-	Use restricted. See item 75. (see link for restriction details)	-

**REACH links**

<https://echa.europa.eu/substances-restricted-under-reach>

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Dimethylaniline	121-69-7	Listed	Not applicable	Not applicable	Not applicable

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

**Other International Regulations**

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Dimethylaniline	121-69-7	Not applicable	Not applicable	Not applicable	Not applicable

**16. Other information****Prepared By**

Health, Safety and Environmental Department  
 Email: chem.techinfo@thermofisher.com



www.thermofisher.com

**Creation Date** 19-Apr-2012  
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**Revision Summary** New emergency telephone response service provider.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**