



# Fisher Scientific

Part of Thermo Fisher Scientific

## Material Safety Data Sheet

Creation Date 16-Sep-2010

Revision Date 28-Dec-2011

Revision Number 2

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** N,N,N',N'-Tetramethylethylenediamine  
**Cat No.** AC138450000; AC138450500; AC138455000  
**Synonyms** TMEDA; TEMED; 1,2-Di(dimethylamino)ethane  
**Recommended Use** Laboratory chemicals

**Company**  
Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

**Entity / Business Name**  
Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number**  
For information in the US, call: 001-800-ACROS-01  
For information in Europe, call: +32 14 57 52 11  
  
Emergency Number, Europe: +32 14 57 52 99  
Emergency Number, US: 001-201-796-7100  
  
CHEMTREC Phone Number, US: 001-800-424-9300  
CHEMTREC Phone Number, Europe: 001-703-527-3887

### 2. HAZARDS IDENTIFICATION

#### DANGER!

#### Emergency Overview

Flammable liquid and vapor. May cause pulmonary edema. Causes burns by all exposure routes. Harmful by inhalation and if swallowed.

**Appearance** Colorless

**Physical State** Liquid

**odor** rotten-egg like

#### Target Organs

Skin, Respiratory system, Eyes, Gastrointestinal tract (GI), Central nervous system (CNS), Peripheral Nervous System (PNS)

#### Potential Health Effects

##### Acute Effects

##### Principle Routes of Exposure

**Eyes**

Causes burns.

**Skin**

Causes burns. May be harmful in contact with skin.

**Inhalation**

Causes burns. May cause pulmonary edema. Harmful by inhalation.

**Ingestion**

Causes burns. Harmful if swallowed.

**Chronic Effects** None known.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Respiratory disorders.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Haz/Non-haz**

Component	CAS-No	Weight %
1,2-Bis(dimethylamino)ethane	110-18-9	>95

### 4. FIRST AID MEASURES

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

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation** Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

**Ingestion** Do not induce vomiting. Call a physician or Poison Control Center immediately.

**Notes to Physician** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Flash Point** 17°C / 68°F

**Method** No information available.

**Autoignition Temperature** No information available.

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Suitable Extinguishing Media** CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam. Cool closed containers exposed to fire with water spray.

**Unsuitable Extinguishing Media** No information available.

**Hazardous Combustion Products** No information available.

**Sensitivity to mechanical impact** No information available.

**Sensitivity to static discharge** No information available.

**Specific Hazards Arising from the Chemical**

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

### 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. Thermal decomposition can lead to release of irritating gases and vapors.

**NFPA**                      **Health** 3                      **Flammability** 3                      **Instability** 0                      **Physical hazards** N/A

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges.
<b>Environmental Precautions</b>	Should not be released into the environment.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Do not breathe vapors/dust. Do not ingest. Take precautionary measures against static discharges.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area. Corrosives area.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Measures</b>	Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment.
<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**NIOSH IDLH:** *Immediately Dangerous to Life or Health*

### 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	Colorless
<b>odor</b>	rotten-egg like
<b>Odor Threshold</b>	No information available.
<b>pH</b>	8.0-8.5 0.1 g/L (20°C)
<b>Vapor Pressure</b>	No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Density	4.00
Viscosity	No information available.
Boiling Point/Range	120 - 122°C / 248 - 251.6°F @ 760 mmHg
Melting Point/Range	-55°C / -67°F
Decomposition temperature	No information available.
Flash Point	17°C / 68°F
Evaporation Rate	No information available.
Specific Gravity	0.770
Solubility	No information available.
log Pow	No data available
Molecular Weight	116.21
Molecular Formula	C6 H16 N2

## 10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> )
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing..

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,2-Bis(dimethylamino)ethane	268 mg/kg ( Rat )	5390 mg/kg ( Rabbit )	1318 ppm ( Rat ) 4 h

**Irritation** Causes burns by all exposure routes

**Toxicologically Synergistic Products** No information available.

### Chronic Toxicity

**Carcinogenicity** There are no known carcinogenic chemicals in this product

<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	No information available.
<b>Reproductive Effects</b>	No information available.
<b>Developmental Effects</b>	No information available.
<b>Teratogenicity</b>	No information available.
<b>Other Adverse Effects</b>	See actual entry in RTECS for complete information.
<b>Endocrine Disruptor Information</b>	No information available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Do not empty into drains.

<b>Persistence and Degradability</b>	No information available
<b>Bioaccumulation/ Accumulation</b>	No information available
<b>Mobility</b>	No information available

Component	log Pow
1,2-Bis(dimethylamino)ethane	0.3

## 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

<b>UN-No</b>	UN3286
<b>Proper Shipping Name</b>	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.
<b>Hazard Class</b>	3
<b>Subsidiary Hazard Class</b>	6.1, 8
<b>Packing Group</b>	II

### TDG

<b>UN-No</b>	UN3286
<b>Proper Shipping Name</b>	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.
<b>Hazard Class</b>	3
<b>Subsidiary Hazard Class</b>	6.1, 8
<b>Packing Group</b>	II

14. TRANSPORT INFORMATION

**IATA**

**UN-No** UN3286  
**Proper Shipping Name** FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
**Hazard Class** 3  
**Subsidiary Hazard Class** 6.1, 8  
**Packing Group** II

**IMDG/IMO**

**UN-No** UN3286  
**Proper Shipping Name** FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
**Hazard Class** 3  
**Subsidiary Hazard Class** 6.1, 8  
**Packing Group** II

15. REGULATORY INFORMATION

**International Inventories**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
1,2-Bis(dimethylamino)ethane	X	X	-	203-744-6	-		X	X	X	X	X

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313**

Not applicable

**SARA 311/312 Hazardous Categorization**

**Acute Health Hazard**

Yes

Chronic Health Hazard No  
Fire Hazard Yes  
Sudden Release of Pressure Hazard No  
Reactive Hazard No

**Clean Water Act**  
Not applicable

**Clean Air Act**  
Not applicable

**OSHA**  
Not applicable

**CERCLA**  
Not Applicable

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

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
1,2-Bis(dimethylamino)ethane	-	X	-	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ): N  
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**

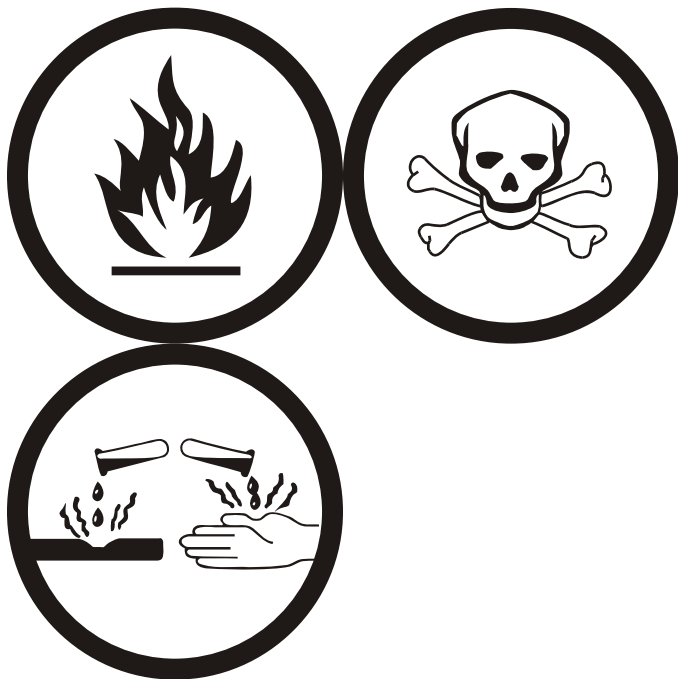
**Mexico - Grade** No information available

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

B2 Flammable liquid  
D1B Toxic materials  
E Corrosive material



## 16. OTHER INFORMATION

**Prepared By** Regulatory Affairs  
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Email: EMSDS.RA@thermofisher.com

**Creation Date** 16-Sep-2010

**Print Date** 28-Dec-2011

**Revision Summary** "\*\*\*\*", and red text indicates revision

### Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**End of MSDS**