Safety Data Sheet

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name	**N,N,N',N'-TETRAMETHYLETHYLENEDIAMINE**
Product Code	T18000
CAS Number	110-18-9
Other Names	TEMED
IUPAC	
MFCD Number	
EC/EINECS	203-744-6
REACH Number	Index-No

2. Relevant identified uses of the substance or mixture and uses advised against

Research and Laboratory Use

3. Details of the supplier of the safety data sheet

Melford Laboratories Ltd
Bildeston Road,Chelsworth
Ipswich
Suffolk
IP77LE
UK

Telephone: 01449 741178
Fax: 01449 741217
Email: support@melford.co.uk

4. Emergency telephone number

+44(0)1449 741178 -

2. Hazards Identification

1. Classification of the substance or mixture

H225	Flam. Liq. 2	
H301	Acute Tox. 3	
H314	Skin Corr. 1B	
H318	Eye Dam. 1	
H331	Acute Tox. 3	

2. Label elements

Signal Word **Danger**

Hazard Statements

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.

Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

Product Name	Hazards	Concentration
N,N,N',N'-TETRAMETHYLETHYLENEDIAMINE		
CAS Number: 110-18-9 EC/EINECS: 203-744-6	H225, H301, H314, H318, H331 Acute Tox. 3, Eye Dam. 1, Flam. Liq. 2, Skin Corr. 1B	<=100%

4. First Aid Measures

1. Description of first aid measures

Skin Contact
Remove all contaminated clothes and footwear immediately unless stuck to skin.
Wash immediately with plenty of soap and water.
Consult a doctor.

Eye Contact
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor.
Consult a doctor.

Ingestion
P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.
Consult a doctor.

Inhalation
Move to fresh air in case of accidental inhalation of vapours.
If breathing becomes bubbly, have the casualty sit and provide oxygen if available.
Consult a doctor. Show this safety data sheet to the doctor in attendance.

2. Most important symptoms and effects

The most important known symptoms and effects are described in section 11.

3. Indication of any immediate medical attention

P310: Immediately call a POISON CENTER or doctor/physician.
Notes to Physician: Treat symptomatically

5. Firefighting measures

1. Extinguishing Media

Suitable
Alcohol or polymer foam.
Dry chemical powder.
Carbon dioxide.
Water spray.

Unsuitable
No data available.

2. Special Hazards arising from the substance or mixture

Harmful.
Corrosive.
In combustion emits toxic fumes:
Carbon oxides, Nitrogen oxides (NOx)

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.
Use water spray to cool unopened containers.

6. Accidental Release Measures

1. Personal Precautions

Refer to section 8 of SDS for personal protection details.
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure there is exhaust ventilation of the area. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

2. Environmental Precautions

Do not discharge into drains or rivers.
Prevent further leakage or spillage if safe to do so.

3. Methods & Materials

Absorb into dry earth,sand or other absorbent material.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

Clean up all spills immediately. Wear suitable PPE.

7.Handling and Storage

1. Personal Precautions

Safe Handling	Ensure there is exhaust ventilation of the area. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition -No smoking. Take measures to prevent the build up of electrostatic charge. Ensure there is exhaust ventilation of the area.
Protection against explosions and fires	Keep ignition sources away- do not smoke. Take measures to prevent the build up of electrostatic charge.

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Air and moisture sensitive.
Storage Controls	No special requirements
Maintaining Integrity	P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Store away from oxidising agents
Other advice	No further information available.

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

General protective and hygiene measures	P280: Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
Engineering measures	Provide exhaust ventilation of the area.
Eye / Face Protection	Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Hand protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it
Respiratory protection	Where risk assessment shows air-purifying respirators are appropri ate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backupto engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
Skin protection	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other personal protection advice	No data.

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	Clear, colourless liquid
Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	-55°C (lit.)
Initial boiling point and boiling range	120-122°C (lit.)
Flash point	20°C (closed cup)
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	9.08%(V)-upper, 0.98%(V)-lower explosion limit
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	0.775 g/ml at 20°C
Solubility(ies):	Soluble in water
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

Stable under recommended storage conditions.

2. Stability

Store at 0 - 5°C

3. Possibility of Hazardous Reactions

Hazardous polymerisation does occur.

4.Conditions to Avoid

Heat.
Hot Surfaces.
Sources of Ignition.
Flames.
Direct Sunlight.

5. Incompatible Materials

Strong oxidizing agents.
Copper.
Carbon dioxide

6. Hazardous Decomposition Products

In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
In combustion emits toxic fumes of nitrogen oxides.
Formaldehyde

11. Toxicology information

1. Information

Acute Toxicity	Oral LD50 (rat) 268mg/kg LC50 Inhalation (Rat) 4 h-1318 ppm LD50 Dermal (Rabbit) 5,390 mg/kg
Skin corrosion/irritation	No information available
Serious eye Damage/irritation	Eyes-Rabbit Result: Severe eye irritation
Respiratory or skin sensitisation	No information available
Germ Cell mutagenicity	No information available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No information available
STOT-single exposure	No information available
STOT-repeated exposure	No information available
Aspiration hazard	No information available

2. Additional

RTECS: KV7175000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema

12. Ecological Information

1. Toxicity

No information available

2. Persistence and degradability

No information available

3. Bio-Accumulative Potential

No information available

4. Mobility and Soil

1,2-DI (Dimethylamino)Ethane

0.3 log Pow

5. Results of PBT & vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

6. Other adverse effects

No information available

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations — Consult state, local or national regulations for proper disposal.
Hand over to authorised disposal company as hazardous waste.

Disposal of Packaging — Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

1. **UN Number:** 2372
2. **Shipping Name:** 1,2-DI(DIMETHYLAMINO)ETHANE
3. **Transport hazard class(es):** : 3 Sub Class :

4. **Packing group:** II
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

Road (ADR)

1. **UN Number:** 2372
2. **Shipping Name:** 1,2-DI(DIMETHYLAMINO)ETHANE
3. **Transport hazard class(es):** : 3 Sub Class :

4. **Packing group:** II
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

Sea (IMDG)

1. **UN Number:** 2372
2. **Shipping Name:** 1,2-DI(DIMETHYLAMINO)ETHANE
3. **Transport hazard class(es):** : 3 Sub Class :

4. **Packing group:** II
5. **Environmental hazards:**
6. **Special Precautions for user:**

7. **Transport in bulk:** IBCINS: IBC02

TANKPROV: TP1

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

Product is not subject to any additional regulations or provisions.

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

This safety data sheet complies to the requirements of Regulation (EC) No. 1907/2006
ADR: Accord European sur le transport des merchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des merchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.
The information provided on this SDS 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 nused in combination with any other material or in any process unless specified in the text