

MATERIAL SAFETY DATA SHEET
N,N'-DIMETHYL-1,2-CYCLOHEXANEDIAMINE 96+%

Section 1 - Chemical Product and Company Identification

MSDS Name:	N,N'-DIMETHYL-1,2-CYCLOHEXANEDIAMINE 96+%
Catalog Numbers:	9.163
Synonyms:	RAC-TRANS-N,N'-DIMETHYLCYCLOHEXANE
Company Identification:	Tau-Chem, Ltd. Nobelova 34, P.O. Box 29 836 05 Bratislava, Slovak Republic Phone: +421 2 44 452 252 Fax: +421 244 457 645
Relevant identified uses of substance or mixture and uses advised against	
Identified uses	Laboratory chemicals, Manufacture of substances
POISON CENTER:	National Toxicological Information Centre Limbová 5, 833 05 Bratislava,
Emergency Numbers Slovakia:	Phone: +421 2 54 774 166 Fax: +421 2 54 774 605

Section 2 – Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Acute Toxicity, Oral (Category 4)

Skin corrosion (Category 1B)

Specific target organ toxicity – single exposure (Category 3)

According to European Directive 67/548/EEC as amended.

Harmful if swallowed. Causes burns.

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

Precautionary statement(s)

P280

Wear protective gloves/protective clothing.

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.

Hazard symbol(s)

According to European Directive 67/548/EEC as amended

C	Corrosive.
R-phrase(s)	
R22	Harmful if swallowed.
R34	Causes burns.
S-phrase(s)	
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39	Wear suitable protective gloves and eye/face protection.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Other hazards	None.

Section 3 – Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
61798-24-1	N,N'-DIMETHYL-1,2-CYCLOHEXANEDIAMINE	96+	unlisted

Classification Acute Tox. 4; Skin Corr. 1B; STOT SE 3
H302,H314
C, R22; R34

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4 – First Aid Measures

General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled:	If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
In case of skin contact:	Wash off with soap and plenty of water. Consult a physician.
In case eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5 – Fire Fighting Measures

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters:	Wear self contained apparatus breathing apparatus for fire fighting if necessary.

Section 6 – Accidental Release Measures

Personal precautions:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
Environmental precautions:	Do not let product enter drains.

Methods and materials for containment and cleaning up: Pick up without creating dust and dispose as hazardous waste. Place into a suitable disposal container. Keep in suitable, closed containers for disposal.

Section 7 – Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid breathing dust/vapor/mist or gas. Ensure adequate ventilation. Normal measures for fire protection.

Conditions for safe storage: Store in cool place. 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. Corrosive area. Keep refrigerated. Sensitive to carbon dioxide. Recommended storage temperature: 2-8°C. Store under inert gas.

Section 8 – Exposure Controls, Personal Protection

Personal protective equipment:

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to 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).

Hand protection: The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

Eye protection: Face shield and safety glasses.

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9 – Physical and Chemical Properties

Appearance

Form: Liquid

Color: Clear colorless to slightly yellow

Safety data:

pH Not available

Freezing/Melting Point: Not available

Boiling Point: 78-80 °C18 mm Hg(lit.)

Flash Point: 74 °C

Ignition temperature: Not available

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

Solubility in water: Not available

Density: 0.902 g/mL at 25 °C(lit.)

Refractive index: $n_{20/D}$ 1.472(lit.)

Optical Rotation:	Not available
Molecular Formula:	C ₆ H ₁₈ N ₂
Molecular Weight:	142.24 g/mol

Section 10 – Stability and Reactivity

Chemical Stability:	Stabile under recommended storage conditions.
Conditions to Avoid:	Incompatible materials.
Materials to avoid:	Strong oxidizing agents, acids, Carboxylic acid.
Hazardous Decomposition Products	Carbon monoxide, Nitrogen oxides (NO _x).

Section 11 – Toxicological Information

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available

Carcinogenicity:

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity:	No data available
Specific target organ toxicity – single exposure	No data available
Specific target organ toxicity – repeated exposure	No data available
Aspiration hazard	No data available

Potential health effect:

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	Harmful if swallowed. Causes burns.
Skin	Harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: Not available.

Section 12 – Ecological Information

Toxicity:	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB assessment	No data available

Other adverse effects No data available

Section 13 – Disposal Considerations

Product Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging Dispose of as unused product.

Section 14 – Transport Information

	IATA	IMDG	RID/ADR
Shipping Name:	AMINES, LIQUID, CORROSIVE, N.O.S.	AMINES, LIQUID, CORROSIVE, N.O.S.	AMINES, LIQUID, CORROSIVE, N.O.S.
Hazard Class:	8	8	8
UN Number:	2735	2735	2735
Packing Group:	II	II	II
		EMS No. F-A; S-B	
		Marine pollutant: No	

Section 15 – Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

Section 16 – Other Information

Text of H-code(s) and R-phrase(s) mentioned in Section 3

Acute Tox.	Acute toxicity.
Skin Corr.	Skin corrosion.
Eye Irrit.	Eye irritation.
STOT SE	Specific target organ toxicity – single exposure.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
C	Corrosive.
R22	Harmful if swallowed.
R34	Causes burns.

MSDS Creation Date: 08/06/2010

Revision #1 Date: 01/12/2010

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Disclaimer:

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product. 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.