

# Material Safety Data Sheet

## N,N-Dimethylcyclohexylamine, 99%

ACC# 89299

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** N,N-Dimethylcyclohexylamine, 99%

**Catalog Numbers:** AC408250000, AC408255000

**Synonyms:** Dimethylcyclohexylamine.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
98-94-2	N,N-Dimethylcyclohexylamine	99	202-715-5

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 37 deg C.

**Danger!** Causes eye and skin burns. Causes digestive and respiratory tract burns. **Flammable liquid and vapor.** Harmful if swallowed, inhaled, or absorbed through the skin.

**Target Organs:** Kidneys, lungs, respiratory system, eyes, skin, mucous membranes.

#### Potential Health Effects

**Eye:** Causes eye burns.

**Skin:** Harmful if absorbed through the skin. Causes skin burns.

**Ingestion:** Harmful if swallowed. Causes gastrointestinal tract burns.

**Inhalation:** May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Toxic if inhaled.

**Chronic:** Chronic exposure may cause effects similar to those of acute exposure.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. Wash mouth out with water.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire.

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water cannot be contained.

**Flash Point:** 37 deg C ( 98.60 deg F)

**Autoignition Temperature:** 215 deg C ( 419.00 deg F)

**Explosion Limits, Lower:**3.60 vol %

**Upper:** 19.00 vol %

**NFPA Rating:** (estimated) Health: ; Flammability: 3; Instability:

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Keep away from heat, sparks and flame. Do not breathe vapor or mist. Use only with adequate ventilation or respiratory protection.

**Storage:** Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
N,N-Dimethylcyclohexylamine	none listed	none listed	none listed

**OSHA Vacated PELs:** N,N-Dimethylcyclohexylamine: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles and face shield.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** 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.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear, colorless

**Odor:** Strong ammonia odor

**pH:** Not available.

**Vapor Pressure:** 3.6 mm Hg @ 20 deg

**Vapor Density:** 4.93

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** 160 deg C @ 760 mm Hg

**Freezing/Melting Point:**-60 deg C

**Decomposition Temperature:**Not available.

**Solubility:** 10 G/L WATER (20°C)

**Specific Gravity/Density:**.8490g/cm3

**Molecular Formula:**C8H17N

**Molecular Weight:**127.23

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Ignition sources.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids.

**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 98-94-2: GX1198000

**LD50/LC50:**

CAS# 98-94-2:

Inhalation, mouse: LC50 = 1100 mg/m3/2H;

Inhalation, rat: LC50 = 1889 mg/m3/2H;

Oral, mouse: LD50 = 320 mg/kg;

Oral, rabbit: LD50 = 620 mg/kg;

Oral, rat: LD50 = 348 mg/kg;

Skin, rat: LD50 = 370 mg/kg;

**Carcinogenicity:**

CAS# 98-94-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Mutagenicity:** No data available.

**Neurotoxicity:** No data available.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. Water danger/protection: WGK 1

**Environmental:** No information available.

**Physical:** No information available.

**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	DIMETHYLCYCLOHEXYLAMINE	DIMETHYLCYCLOHEXYLAMINE
<b>Hazard Class:</b>	8	8(3)
<b>UN Number:</b>	UN2264	UN2264
<b>Packing Group:</b>	II	II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 98-94-2 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 98-94-2: immediate, fire.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 98-94-2 can be found on the following state right to know lists: New Jersey.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T C

#### Risk Phrases:

R 10 Flammable.  
R 22 Harmful if swallowed.  
R 23 Toxic by inhalation.  
R 34 Causes burns.

#### Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.  
S 25 Avoid contact with eyes.  
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**WGK (Water Danger/Protection)**

CAS# 98-94-2: 1

**Canada - DSL/NDSL**

CAS# 98-94-2 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of E, B2.

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

**Canadian Ingredient Disclosure List**

CAS# 98-94-2 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information
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**MSDS Creation Date:** 9/02/1997

**Revision #3 Date:** 10/03/2005

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*