

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
Shipping Name:	DIMETHYLCYCLOHEXYLAMINE	DIMETHYLCYCLOHEXYLAMINE
Hazard Class:	8	8(3)
UN Number:	UN2264	UN2264
Packing Group:	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

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.