

# MATERIAL SAFETY DATA SHEET

## N-Methyldiethanolamine

### Section 1 - Chemical Product and Company Identification

<b>MSDS Name:</b>	N-Methyldiethanolamine, 99+%
<b>Synonyms:</b>	MDEA; 2,2'-(Methylimino)diethanol
<b>Company Identification: (INDIA)</b>	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
<b>For information in the INDIA, call:</b>	Tel: +91 - 22 - 2275 5555 / 6184 0000, Fax: +91 - 22 - 2275 5556 / 6184 0001

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
105-59-9	N-Methyldiethanolamine	99+%	203-312-7

<b>Hazard Symbols:</b>	XI
	
<b>Risk Phrases:</b>	36

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

*Irritating to eyes.*

#### Potential Health Effects

<b>Eye:</b>	Causes eye irritation.
<b>Skin:</b>	May cause skin irritation. May be harmful if absorbed through the skin.
<b>Ingestion:</b>	May cause irritation of the digestive tract.
<b>Inhalation:</b>	May cause respiratory tract irritation. May be harmful if inhaled.
<b>Chronic:</b>	

### Section 4 - First Aid Measures

<b>Eyes:</b>	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
<b>Skin:</b>	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
<b>Ingestion:</b>	Get medical aid. Wash mouth out with water.
<b>Inhalation:</b>	Remove from exposure and move to fresh air immediately.
<b>Notes to Physician:</b>	

## Section 5 - Fire Fighting Measures

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
<b>Extinguishing Media:</b>	In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

## Section 6 - Accidental Release Measures

<b>General Information:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>Spills/Leaks:</b>	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

## Section 7 - Handling and Storage

<b>Handling:</b>	Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing.
<b>Storage:</b>	Store in a cool, dry place. Store in a tightly closed container.

## Section 8 - Exposure Controls, Personal Protection

<b>Engineering Controls:</b>	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.
<b>Exposure Limits</b>	CAS# 105-59-9:

### Personal Protective Equipment

<b>Eyes:</b>	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.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	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

<b>Physical State:</b>	Clear liquid
<b>Color:</b>	colorless - light yellow
<b>Odor:</b>	amine-like
<b>pH:</b>	11.5(100g/l aq.sol.)
<b>Vapor Pressure:</b>	0.026 mbar @ 40 deg C
<b>Viscosity:</b>	101mPa.s @ 20 deg C
<b>Boiling Point:</b>	243 deg C @ 760mmHg ( 469.40°F)
<b>Freezing/Melting Point:</b>	-21 deg C ( -5.80°F)
<b>Autoignition Temperature:</b>	265 deg C ( 509.00 deg F)
<b>Flash Point:</b>	137 deg C ( 278.60 deg F)
<b>Explosion Limits: Lower:</b>	0.9 vol %
<b>Explosion Limits: Upper:</b>	8.4 vol %
<b>Decomposition Temperature:</b>	Not available
<b>Solubility in water:</b>	Miscible
<b>Specific Gravity/Density:</b>	1.0380 g/cc
<b>Molecular Formula:</b>	C5H13NO2
<b>Molecular Weight:</b>	119.16

## Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Not available
<b>Conditions to Avoid:</b>	Incompatible materials.
<b>Incompatibilities with Other Materials</b>	Incompatible materials, acids.
<b>Hazardous Decomposition Products</b>	Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen.
<b>Hazardous Polymerization</b>	Has not been reported.

## Section 11 - Toxicological Information

<b>RTECS#:</b>	CAS# 105-59-9: KL7525000
<b>LD50/LC50:</b>	RTECS: <b>CAS# 105-59-9:</b> Draize test, rabbit, eye: 5 uL Mild; Draize test, rabbit, skin: 500 uL Mild; Oral, rat: LD50 = 1945 mg/kg; Skin, rabbit: LD50 = 5990 uL/kg; Other:
<b>Carcinogenicity:</b>	N-Methyldiethanolamine - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
<b>Other:</b>	See actual entry in RTECS for complete information. Mutagenicity: Ames-test: negative.

## Section 12 - Ecological Information

<b>Ecotoxicity:</b>	Daphnia: EC50: 233 mg/l; 48H; acute Algae: EC50: 37 mg/l; 72H; . Bacteria: EC50: 410 mg/l; 17H; . Fish: Leuciscus idus: LC50: >1000 <2200 mg/l; 96H;
<b>Other:</b>	Biodegradable. log Pow: -1.08

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## Section 14 - Transport Information

	<b>IATA</b>	<b>IMO</b>	<b>RID/ADR</b>
<b>Shipping Name:</b>	Not available	Not available	Not available
<b>Hazard Class:</b>			
<b>UN Number:</b>			
<b>Packing Group:</b>			

## Section 15 - Regulatory Information

<b>European/International Regulations</b>
European Labeling in Accordance with EC Directives
<b>Hazard Symbols:</b> Xi
<b>Risk Phrases:</b>
➤ R 36 Irritating to eyes.
<b>Safety Phrases:</b>
➤ S 24 Avoid contact with skin.
<b>WGK (Water Danger/Protection)</b>
➤ CAS# 105-59-9: 1
<b>Canada</b>
➤ CAS# 105-59-9 is listed on Canada's DSL List
<b>US Federal</b>

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- TSCA
  - CAS# 105-59-9 is listed on the TSCA Inventory.

## Section 16 - Other Information

<b>MSDS Creation Date:</b>	July 22, 2015
<b>Revision #0 Date</b>	

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