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## Material Safety Data Sheet

### N-methyldiethanolamine

#### Section 1: Chemical Product and Company Identification

**Product Name:** N-Methyldiethanolamine, 99+%

**CAS#:** 105-59-9

**RTECS:**KL7525000

**TSCA:** TSCA 8(b) inventory: N-Methyldiethanolamine

**CI#:** Not available.

**Synonym:** MDEA; 2,2'-(Methylimino)diethanol

**Chemical Name:** N-Methyldiethanolamin

**Chemical Formula:** C5H13NO2

**Contact Information for Emergency:** (0086) 551 65418677

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#### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS # %	By Weight
N-Methyldiethanolamine	105-59-9	100%

**Toxicological Data on Ingredients:** Not available.

#### Section 3: Hazards Identification

### EMERGENCY OVERVIEW

Irritating to eyes.

Potential Health Effects

Eye: Causes eye irritation.

Skin: May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion: May cause irritation of the digestive tract.

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.

Chronic: Not available.

### Section 4: First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

**Skin Contact:**

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

**Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

**Ingestion:**

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:** Not available.

### Section 5: Fire and Explosion Data

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Special Remarks on Explosion Hazards: Not available.

### 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.

### Section 7: Handling and Storage

**Handling:** Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing.

**Storage:** Store in a cool, dry place. Store in a tightly closed container.

## 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.

Personal Protective Equipment

**Eyes:** 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.

**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.

Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Clear liquid

**Odor:** amine-like

**Taste:** Not available.

**Molecular Weight:** 119.16 .

**Color:** Colorless - light yellow

**pH (1% soln/water):** 11.5(100g/l aq.sol.)

**Boiling Point:** 243 deg C @ 760mmHg .

**Melting Point:** -21 deg C .

**Critical Temperature:** Not available.

**Specific Gravity:** 0.915 (Water = 1)

**Vapor Pressure:** 0.026 mbar @ 40 deg C

**Viscosity:** 101mPa.s @ 20 deg C

**Autoignition Temperature:** 265 deg C ( 509.00 deg F)

**Flash Point:** 137 deg C ( 278.60 deg F)

**Explosion Limits, lower:** 0.9 vol %

**Explosion Limits, upper:** 8.4 vol %

**Specific Gravity/Density:** 1.0380g/cm<sup>3</sup>

**Molecular Formula:** C<sub>5</sub>H<sub>13</sub>NO<sub>2</sub>

**Solubility in water:** Miscible.

## Section 10: Stability and Reactivity Data

**Chemical Stability:** Not available.

**Conditions to Avoid:** Incompatible materials.

**Incompatibilities with Other Materials:** Oxidizing agents, acids.

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

**Hazardous Polymerization:** Has not been reported.

### Section 11: Toxicological Information

**RTECS#:** CAS# 105-59-9: KL7525000

**LD50/LC50:** CAS# 105-59-9: 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.

Not available.

**Carcinogenicity:** N-Methyldiethanolamine -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

See actual entry in RTECS for complete information.

### Section 12: Ecological Information

Date not yet available

### Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable

### Section 15: Other Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

WGK (Water Danger/Protection) CAS# 105-59-9

### Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/10/2001 11:23 AM

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