

Section 1. Product and Company Identification

Product Name Methyl Diethanolamine
CAS Number 105-59-9

Parchem - fine & specialty chemicals

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CHEMTEL

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Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Eye irritation (Category 2A), H319

GHS Label Elements

Pictograms:



Signal word: WARNING

Hazard and precautionary statements

Hazard Statements

H319 Causes serious eye irritation.

Precautionary Statements

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention

Hazards not otherwise classified (HNOC) or not covered by GHS: None

Section 3. Composition / Information on Ingredients

Common Name	Methyl Diethanolamine
Synonym(s)	N-Methyldiethanolamine; 2,2?-Methyliminodiethanol; MDEA; N-Bis(2-hydroxyethyl)methylamine
Formula	C ₅ H ₁₃ NO ₂
CAS Number	105-59-9

COMPONENT	CAS NUMBER	CONCENTRATION
Methyl Diethanolamine	105-59-9	90 - 100%

Section 4. First Aid Measures

Description of first-aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed: No data available

Section 5. Firefighting Measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special hazards arising from the substance or mixture: Carbon oxides, nitrogen oxides (NO_x)

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: no data available

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. For



personal protection see section 8.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see section 13.

Section 7. Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. For precautions see section 2.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place.

Section 8. Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Exposure controls

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

Personal protective equipment

Eye/face protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose 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).

Control of environmental exposure: Do not let product enter drains.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance: Clear, viscous liquid

Color: Light yellow

Odor: Ammonia-like

Odor Threshold: No data available

pH: 11.5 at 100 g/l (20°C/68°F)

Melting point/freezing point: -21.3°C (-6.3°F)

Initial boiling point and boiling range: 246 - 248°C (475 - 478°F) - lit.

Flash point (Closed Cup): 127°C (261°F)

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits

Upper explosion limit: 8.8% (V)

Lower explosion limit: 1.4% (V)

Vapor pressure: 0.01 hPa (0.01 mmHg) (20°C/68°F)

Vapor density: 4.11 - (Air = 1.0)

Relative density: 1.038 g/cm³ (25°C/77°F)

Water solubility: completely miscible

Partition coefficient (n-Octanol/water): log Pow: -1.08

Auto-ignition temperature: 280°C (536°F) at 1,013 hPa (760 mmHg)

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Other safety information

Dissociation constant: 8.52 (25°C/77°F)

Relative vapor density: 4.11 - (Air = 1.0)

Section 10. Stability and Reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No data available

Conditions to avoid: No data available

Incompatible materials: Oxidizing agents, Do not store near acids.

Hazardous decomposition products

Other decomposition products: No data available

In the event of fire: see section 5

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - Male and female: 4,680 mg/kg
(OECD Test Guideline 401)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes.
(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - guinea pig

Did not cause sensitization on laboratory animals.
(OECD Test Guideline 406)

Germ cell mutagenicity

in vitro assay

S. typhimurium

Result: negative

Mutagenicity (micronucleus test)

mouse - male and female

Result: negative

Carcinogenicity

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

ACGIH: No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product, present at levels greater than or equal to 0.1%, is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Reproductive toxicity - rat - Skin

Maternal Effects: Other effects.

Specific target organ toxicity - single exposure: No data available



Specific target organ toxicity - repeated exposure: No data available
Aspiration hazard: No data available

Additional Information

RTECS: KL7525000
Cough, Shortness of breath, Headache, Nausea, Vomiting.

Section 12. Ecological Information

Toxicity

Toxicity to fish

Static test LC50 - Leuciscus idus (Golden orfe): 1,466 mg/l (96 h)

Toxicity to daphnia and other aquatic invertebrates

Static test EC50 - Daphnia magna (Water flea): 233 mg/l (48 h)

Toxicity to algae

Static test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus): > 100 mg/l (72 h)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 7 % - Not biodegradable.

(OECD Test Guideline 301C)

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: No data available

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT (US): Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

Section 15. Regulatory Information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.



SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

N-Methyldiethanolamine (CAS-No. 105-59-9)

New Jersey Right to Know Components

N-Methyldiethanolamine (CAS-No. 105-59-9)

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating

Health: 2

Flammability: 1

Reactivity: 0

NFPA Rating

Health: 2

Flammability: 1

Reactivity: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

REVISION DATE: 10/18/2016