Section 1. Product and Company Identification

Product Name Dimethylethanolamine
CAS Number 108-01-0

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
(914) 654-6800 **(914) 654-6899**
parchem.com **info@parchem.com**

EMERGENCY RESPONSE NUMBER
CHEMTEL
Toll Free US & Canada: 1 (800) 255-3924
All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 3), H226
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 3), H331
Acute toxicity, Dermal (Category 4), H312
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Acute aquatic toxicity (Category 3), H402

GHS Label Elements
Pictograms:

Signal word: DANGER

Hazard and precautionary statements
Hazard Statements
H226 Flammable liquid and vapor.
H302 + H312 Harmful if swallowed or in contact with skin
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H402 Harmful to aquatic life.

Precautionary Statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container to an approved waste disposal plant.

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

Section 3. Composition / Information on Ingredients

Common Name Dimethylethanolamine
Synonym(s) 2-Dimethylaminoethanol
Formula $C_4H_{11}NO$
CAS Number 108-01-0

COMPONENT	CAS NUMBER	CONCENTRATION
Dimethylethanolamine	108-01-0	≤ 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: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
Ingestion: Do NOT induce vomiting. 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: No data available
Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: Use water spray to cool unopened containers.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear respiratory protection. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

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. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas.

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: Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment
Eye/face protection: Tightly fitting safety goggles. Face shield (8-inch minimum). 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: Complete suit protecting against chemicals, Flame retardant antistatic protective 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: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9. Physical and Chemical Properties

Appearance: Clear, liquid
Color: Light yellow
Odor: Amine-like

Odor Threshold: No data available
pH: 10.5 - 11.0 at 100 g/l at 20°C (68°F)
Melting/freezing point: -69.99°C (-93.98°F)
Initial boiling point and boiling range: 134 - 136°C (273 - 277°F) at 1,013 hPa (760 mmHg)
Flash point (Closed Cup): 39°C (102°F)
Evaporation rate: No data available
Flammability (Solid, gas): No data available

Upper/lower flammability or explosive limits
Upper explosion limit: 12.2% (V)
Lower explosion limit: 1.4% (V)

Vapor pressure: 8.16 hPa (6.12 mmHg) at 20°C (68°F)
Vapor density: 3.08 - (Air = 1.0)
Relative density: 0.886 g/cm^3
Water solubility: Soluble
Partition coefficient (n-Octanol/water): log Pow: -0.549 at 23°C (73°F)
Auto-ignition temperature: 230°C (446°F) at 1,013 hPa (760 mmHg)
Decomposition temperature: No data available
Viscosity: No data available
Explosive properties: Not explosive
Oxidizing properties: No data available

Other safety information
Dissociation constant: 9.3 at 1,000 mg/l
Relative vapor density: 3.08 - (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: Heat, flames, and sparks.
Incompatible materials: Oxidizing agents, Copper, Zinc, Iron, Do not store near acids.

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions: Carbon oxides, Nitrogen oxides (NOx)
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: 1,182.7 mg/kg
(OECD Test Guideline 401)
LC50 Inhalation - Rat - male: 1641 ppm (4h)
(OECD Test Guideline 403)
LD50 Dermal - Rabbit - male: 1,219 mg/kg
(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit
Result: Corrosive - 1 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Corrosive
(OECD Test Guideline 405)

Respiratory or skin sensitization

Buehler Test - Guinea pig
Result: Does not cause skin sensitization.

Germ cell mutagenicity

Hamster
ovary
Result: negative
OECD Test Guideline 474
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
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: KK6125000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.
Cough, Shortness of breath, Headache, Nausea
Stomach - Irregularities - Based on Human Evidence

Section 12. Ecological Information

Toxicity
Toxicity to fish
LC50 - Leuciscus idus (Golden orfe): > 100 - 220 mg/l (96 h)
Static Test LC50 - Leuciscus idus (Golden orfe): 146.63 mg/l (96 h) (DIN 38412)

Toxicity to daphnia and other aquatic invertebrates
Static Test EC50 - Daphnia magna (Water flea): 98.37 mg/l (48 h)
(Directive 67/548/EEC, Annex V, C.2.)

Toxicity to algae
Static Test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus): 66.08 mg/l (72 h)

Persistence and Degradability
Biodegradability aerobic - Exposure time 14 d
Result: 60.5% - Readily 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: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

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)
UN number: 2051
Class: 8(3)
Packing group: II
Proper shipping name: 2-Dimethylaminoethanol
Reportable Quantity (RQ): 100 lbs
Poison Inhalation Hazard: No

IMDG
UN number: 2051
Class: 8(3)
Packing group: II
EMS-No: F-E, S-C
Proper shipping name: 2-Dimethylaminoethanol

IATA
UN number: 2051
Class: 8(3)
Packing group: II
Proper shipping name: 2-Dimethylaminoethanol

Section 15. Regulatory Information

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

SARA 313 Components: 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: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right to Know Components
2-Dimethylaminoethanol (CAS-No. 108-01-0)
Revision Date: 1993-04-24
Pennsylvania Right to Know Components
2-Dimethylaminoethanol (CAS-No. 108-01-0)
Revision Date: 1993-04-24
New Jersey Right to Know Components
2-Dimethylaminoethanol (CAS-No. 108-01-0)
Revision Date: 1993-04-24

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: 3*
Flammability: 2
Reactivity: 0

NFPA Rating
Health: 3
Flammability: 2
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.

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