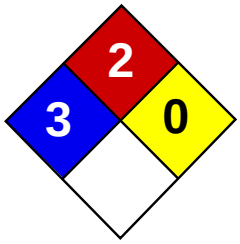

Material Safety Data Sheet
N,N- Dimethylethanolamine MSDS

Section 1: Chemical Product and Company Identification

Product Name: N,N- Dimethylethanolamine

Catalog Codes: SLD3055

CAS#: 108-01-0

RTECS: KK6125000

TSCA: TSCA 8(b) inventory: N,N- Dimethylethanolamine

CI#: Not available.

Synonym: 2-(Dimethylamino)ethanol; 2-Dimethylaminoethanol; beta-Dimethulaminoethanol; beta-Dimethulaminoethyl alcohol; beta-Hydroxyethyldimethylamine; Bimanol; Deanol; Dimethylaminoethanol; DMAE; Liparon; N,N-Dimethyl-2-hydroxyethylamine; N,N-Dimethyl-n-(2-hydroxyethyl)amine; N,N-Dimethylaminoethanol; N-Dimethylamionoethanol; Norcholine; Propamine A

Chemical Name: Ethanol, 2-dimethylamino-

Chemical Formula: C4H11NO

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{N,N-} Dimethylethanolamine	108-01-0	100

Toxicological Data on Ingredients: N,N- Dimethylethanolamine: ORAL (LD50): Acute: 2000 mg/kg [Rat]. DERMAL (LD50): Acute: 1370 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects:
Very hazardous in case of eye contact (irritant). Hazardous in case of skin contact (irritant), of eye contact (corrosive), of ingestion, of inhalation. Slightly hazardous in case of skin contact (corrosive, permeator). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Inflammation of the eye is characterized by redness, watering, and itching.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to mucous membranes, skin, eyes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

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. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 295°C (563°F)

Flash Points: CLOSED CUP: 40°C (104°F). OPEN CUP: 40.556°C (105°F).

Flammable Limits: LOWER: 1.6% UPPER: 11.9%

Products of Combustion: These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).

Fire Hazards in Presence of Various Substances: Flammable in presence of open flames and sparks, of heat.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:
Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:
Flammable liquid. Corrosive liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Section 7: Handling and Storage

Precautions:
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage:
Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:
Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Amine like.

Taste: Not available.

Molecular Weight: 89.14 g/mole

Color: Colorless to light yellow.

pH (1% soln/water): Not available.

Boiling Point: 133°C (271.4°F) - 139 C.

Melting Point: -70°C (-94°F) to -59 C.B

Critical Temperature: Not available.

Specific Gravity: 0.8866(Water = 1)

Vapor Pressure: Not available.

Vapor Density: 3.03 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether, acetone.

Solubility:
Soluble in cold water, diethyl ether, acetone. Miscible with alcohol, benzene.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation.

Toxicity to Animals:
WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 2000 mg/kg [Rat]. Acute dermal toxicity (LD50): 1370 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 3250 mg/m3 4 hours [Mouse].

Chronic Effects on Humans: May cause damage to the following organs: mucous membranes, skin, eyes.

Other Toxic Effects on Humans:
Hazardous in case of skin contact (irritant), of eye contact (corrosive), of ingestion, of inhalation (lung corrosive). Slightly hazardous in case of skin contact (corrosive, permeator).

Special Remarks on Toxicity to Animals:
Lethal Dose/Conc 50% Kill: LD50[Rabbit] - Route: Skin; Dose: 1370 ul/kg

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Contact with skin causes skin irritation with possible burns. Contact with vapor may be severely irritating to the skin. It can be absorbed through the skin. May be harmful if absorbed through the skin. Eyes: Contact with liquid causes severe eye irritation, and burns with possible permanent damage. Contact with vapor may be severely irritating to the eyes and may produce temporary blurring of vision. Lachrymator. Inhalation: It can irritate the respiratory tract (lungs) and cause sore throat, sneezing, coughing, wheezing, and /or shortness of breath/dyspnea. Higher exposures

can cause a build-up of fluid in the lungs (pulmonary edema) with severe shortness of breath. It can affect behavior/central nervous system and cause headache, muscle tenderness, restlessness, ataxia, tremor, increased irritability, lack of sleep, insomnia, convulsions, coma. It may also affect metabolsim and cause anorexia. Ingestion: May cause severe irritation to the mouth, throat, and gastrointestinal tract with nausea, and vomiting. It may affect behavior/central nervous system with symptoms similar to that of inhalation. Chronic Potential Health Effects: Inhalation: Prolonged or repeated inhalation may cause asthma-like allergy/asthma attacks with shortness of breath, wheezing, coughing, and/or chest tightness. Repeated exposure may also affect behavior/central nervous system, metabolism (weight loss) Skin: Prolonged or repeated skin contact may cause dermatitis. Eyes: Prolonged or repeated exposure to vapor may cause corneal damage.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not 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:
Class 8: Corrosive material subsidiary CLASS 3: Flammable liquid.

Identification: : 2-Dimethylaminoethanol UNNA: 2051 PG: II

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:
Pennsylvania RTK: N,N- Dimethylethanolamine Florida: N,N- Dimethylethanolamine Massachusetts RTK: N,N- Dimethylethanolamine Massachusetts spill list: N,N- Dimethylethanolamine New Jersey: N,N- Dimethylethanolamine TSCA 8(b) inventory: N,N- Dimethylethanolamine

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):
CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS E: Corrosive liquid.

DSCL (EEC):

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 2

Reactivity: 0

Personal Protection:

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 2

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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