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PHARMCO-AAPER

AND COMMERCIAL ALCOHOLS

Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

MATERIAL SAFETY DATA SHEETS

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Emergency Contact:

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SECTION 1 – PRODUCT INFORMATION

DIMETHYLETHANOLAMINE

Common Chemical Name: 2-(Dimethylamino)ethanol

Synonyms: DMEA; beta-Dimethylaminoethyl alcohol, N,N-Dimethyl-2-Hydroxyethylamine; 2-dimethylaminoethanol, 2-(dimethylamino)ethanol, dimethylethanolamine, dimethylaminoethanol, N,N-Dimethylaminoethanol, N-dimethylaminoethanol, N,N-dimethyl-N-(2-hydroxyethyl)amine, beta-hydroxyethyl dimethylamine

Molecular Formula: C(4)H(11)NO

Chemical Family: Alkyl amine

Molecular Wt.: 89.1

SECTION 2 – INGREDIENTS

Chemical Name: Dimethylethanolamine

CAS Amount: 108-01-0 99.0 %

PEL/TLV NOT ESTABLISHED

SECTION 3 – PHYSICAL PROPERTIES

Color: Colorless to Light Yellow

Form/Appearance: Liquid

Odor: Amine

Typical Low/High U.O.M.

Specific Gravity: 0.887 @ 20 DEG C

Viscosity: 3.85 MPAS

pH: 10.5– 11 SU

pH method: 100 G/L H₂O

Typical Low/High Deg. @ Pressure

Boiling Pt: 133.5– 135.5 C 760 MM HG

Freezing Pt: -59 C 760 MM HG

Decomp. Tmp: NOT AVAILABLE

Solubility in Water Description: Miscible

Vapor Pressure: 6.12 MILLIBARS X 20 DEG. C XX
Octanol/Water partition coefficient(log POW): -0.55

SECTION 4 – FIRE AND EXPLOSION DATA

Typical Low/High Deg. Method

Flash Point: 39 C DIN 51755

Autoignition: 245 C DIN 51974

Flam. Limits: 1.4 – 12.2 %

Extinguishing Media:

Use CO2 or dry chemical extinguishing media.

Fire Fighting Procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear.

Unusual Hazards: Moderate when exposed to heat or flames. Can react with oxidizing materials.

SECTION 5 – HEALTH EFFECTS

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Toxicology Test Data:

Rabbit, Eye Irritation (unrinsed) –

Corrosive

Rabbit, Skin Irritation (OECD Test 404) –

Corrosive

Rat, Inhalation Safety Screen –

Death; Prolonged Exposure; 20 Deg C

Rat, Oral LD50 – 2130 MG/KG

Moderately Toxic

Rabbit, Dermal LD50 – 1220 MG/KG

Moderately Toxic

Rabbit, Primary Skin Irritation –

Corrosive

Mouse, Acute Intraperitoneal LD50 – ~160 UL/KG

Corrosive

Ames Salmonella Assay –

Not mutagenic

Acute Overexposure Effects:

This material is corrosive to the body tissues. Skin contact with the liquid or vapors/mists may result in dermatitis and deep burns.

Eye contact may result in burns and permanent injury.

Dimethylaminoethanol is extremely irritating to the skin and eyes.

Direct contact with the liquid may be corrosive. Acute inhalation exposures at high concentrations have been known to produce respiratory difficulties, loss of coordination and decreased motor activity in rats.

Chronic Overexposure Effects:

Repeated skin contact with dimethylaminoethanol may result in sensitization. Repeated inhalation has been known to produce effects on the eyes and nasal mucosa as well as respiratory and olfactory lesions in experimental animals.

Inhalation exposures to high vapor concentrations of formic acid may produce CNS effects like visual and mental disturbances.

Intentional ingestion of high doses have been reported to produce salivation, vomiting, burning sensation, severe pain, metabolic acidosis, blindness and even death.

First Aid Procedures – Skin:

Wash affected areas with water while removing contaminated clothing.

Get immediate medical attention. Launder contaminated clothing before reuse.

First Aid Procedures – Eyes:

Immediately rinse eyes with running water for 15 minutes. Get immediate medical attention.

First Aid Procedures – Ingestion:

If swallowed, dilute with water. DO NOT INDUCE VOMITING. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.

First Aid Procedures – Inhalation:

Move to fresh air. Aid in breathing, if necessary, and get Immediate medical attention.

First Aid Procedures – Notes to Physicians:

Not applicable.

First Aid Procedures – Aggravated Medical Conditions:

No data is available which addresses medical conditions that are generally recognized as being aggravated by exposure to this product.

Please refer to the effects of overexposure section for effects observed in animals.

First Aid Procedures – Special Precautions:

Not applicable.

SECTION 6 – REACTIVITY DATA

Stability Data: Stable

Incompatibility: Acids and isocyanates.

Conditions/Hazards to Avoid: See Reactivity – Incompatibility section.

Hazardous Decomposition/Polymerization: Hazardous decomposition products: CO, CO₂ and NO_x.

Polymerization: Does not occur. Corrosive Properties:

Corrosive. Oxidizer Properties:

Not an oxidizer

SECTION 7 – PERSONAL PROTECTION

Clothing: Gloves, coveralls, apron, and boots as necessary to prevent contact.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Respiration: If vapors or mists are generated, wear a NIOSH/MSHA approved organic vapor/mist respirator or an air-supplied respirator as appropriate.

Ventilation: Use local exhaust to control vapors/mists.

Explosion Proofing: See Section 4 – Fire and Explosion Data.

Other Personal Protection Data: Eyewash fountains and safety showers must be easily accessible.

Shower after handling.

SECTION 8 – SPILL–LEAK/ENVIRONMENTAL

General: Spills should be contained, solidified and placed in suitable containers for disposal in a RCRA licensed facility. This material is RCRA hazardous due to its properties.

Waste Disposal:

Incinerate or bury in a RCRA licensed facility. Do not discharge into waterways or sewer systems without proper authority.

Container Disposal:

Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Recommend crushing or other means to prevent unauthorized reuse. Other containers must be disposed of in a RCRA licensed facility.

Other Spill/Leak Procedures:

This product is an alkaline. Before discharging sewage into treatment plants neutralization is generally required.

Because it is practically insoluble in water, it can be mechanically removed.

Environmental Toxicity Test Data:

Golden orfe, Static 48 hr LC₅₀ – > 500 MG/L

Practically Nontoxic

Degradability in Water, Static Test – > 60 PERCENT

Readily Degradable by Biological Proc.

Golden Orfe, static 96 hr LC₅₀ – 100 – 200 MG/L

Practically Nontoxic

Daphnia magna, 48 hr static EC₅₀ – 98.37 MG/L

Slightly Toxic

Acute Algal Toxicity, 72 hr. EC/LC₅₀ – 35 MG/L

Slightly Toxic

Bacterial Toxicity, EC10 (17 hr) - > 8000 MG/L
TEST RATING NOT FOUND
Biological Oxygen Demand, 5 day - 1050 MG O2/G
TEST RATING NOT FOUND

SECTION 9 – STORAGE AND HANDLING

General: Store materials to avoid sources of ignition and excessive heat.
Other Storage and Handling Data:
Consult other sections of this MSDS for information on reactivity and flammability.

SECTION 10 – REGULATORY INFORMATION

TSCA Inventory Status
Listed on Inventory: YES
RCRA Haz. Waste No.: D001
CERCLA: NO Reportable Qty.: (If YES)
The RCRA hazardous
waste number D001 refers to this material's RCRA hazardous waste
characteristic of ignitability.
State Regulatory Information: (By Component) NJ/PA/MA RTK
CAS: 108-01-0 NO
NAME: N,N-Dimethylethanolamine
Hazard Ratings:
Health: Fire: Reactivity: Special:
HMIS 3 2 0 NA
NFPA 3 2 0 NA
This product is hazardous or contains components which are hazardous according to the OSHA Hazard
Communication Standard.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are: **NONE**

SECTION 11 – TRANSPORTATION INFORMATION

DOT Proper Shipping Name: SEE BELOW
DOT Technical Name: SEE BELOW
DOT Primary Hazard Class: SEE BELOW
DOT Secondary Hazard Class: SEE BELOW
DOT Label Required: SEE BELOW
DOT Placard Required: SEE BELOW
DOT Poison Constituent: SEE BELOW
BASF Commodity Codes: NA NA UN/NA Code: E/R Guide:
The information contained herein is based on data considered to be accurate based on the material as packaged. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It is the user's obligation to determine the conditions of safe use of the product. While this MSDS is based on technical data judged to be reliable, PHARMCO-AAPER assumes not responsibility for the completeness or accuracy of the information contained herein.