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| N,N-Dimethyl Amino Ethanol CAS No 108-01-0 | MATERIAL SAFETY DATA SHEET SDS/MSDS |
|---|--|

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifiers**
Product name : **N,N-Dimethyl Amino Ethanol**
CAS-No. : 108-01-0
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
Identified uses : Laboratory chemicals, Industrial & for professional use only.
- 1.3 Details of the supplier of the safety data sheet**
Company : Central Drug House (P) Ltd
7/28 Vardaan House
Ansari Road Daryaganj
New Delhi-110002
INDIA
Telephone : +91 11 49404040
Email : care@cdhfinechemical.com
- 1.4 Emergency telephone number**
Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008
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
For the full text of the H-Statements mentioned in this Section, see Section 16.
Classification according to EU Directives 67/548/EEC or 1999/45/EC
C Corrosive R34
R10
Xn Harmful R20/21/22
For the full text of the R-phrases mentioned in this Section, see Section 16.

- 2.2 Label elements**
Labelling according Regulation (EC) No 1272/2008
Pictogram



| | |
|--------------------------------|--|
| Signal word | Danger |
| Hazard statement(s) | |
| H226 | Flammable liquid and vapour. |
| H302 + H312 | Harmful if swallowed or in contact with skin |
| H314 | Causes severe skin burns and eye damage. |
| H331 | Toxic if inhaled. |
| Precautionary statement(s) | |
| P261 | Avoid breathing vapours. |
| P280 | Wear protective gloves/ protective clothing/ 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. |
| P310 | Immediately call a POISON CENTER or doctor/ physician. |
| Supplemental Hazard Statements | none |

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Lachrymator.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : *N,N*-Dimethyl-2-hydroxyethylamine
N,N-Dimethylethanolamine

Formula : C₄H₁₁NO
Molecular weight : 89,14 g/mol
CAS-No. : 108-01-0
EC-No. : 203-542-8
Index-No. : 603-047-00-0

Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component | Classification | Concentration |
|-------------------------------|--|---------------|
| 2-Dimethylaminoethanol | | |
| CAS-No. 108-01-0 | Flam. Liq. 3; Acute Tox. 4; | <= 100 % |
| EC-No. 203-542-8 | Acute Tox. 3; Acute Tox. 4; | |
| Index-No. 603-047-00-0 | Skin Corr. 1B; H226, H302 + H312, H314, H331 | |

Hazardous ingredients according to Directive 1999/45/EC

| Component | Classification | Concentration |
|-------------------------------|--------------------------|---------------|
| 2-Dimethylaminoethanol | | |
| CAS-No. 108-01-0 | C, R10 - R20/21/22 - R34 | <= 100 % |
| EC-No. 203-542-8 | | |
| Index-No. 603-047-00-0 | | |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

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

In case of 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.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

6.2 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.

6.3 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).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. 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.

Storage class (TRGS 510): Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

8.2 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. Faceshield (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 multi-purpose 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

9.1 Information on basic physical and chemical properties

- | | |
|---------------|---|
| a) Appearance | Form: clear, liquid Colour: light yellow |
|---------------|---|

| | |
|---|---|
| b) Odour | amine-like |
| c) Odour Threshold | No data available |
| d) pH | 10,5 - 11,0 at 100 g/l at 20 °C |
| e) Melting point/freezing point | Melting point/range: -70 °C - lit. |
| f) Initial boiling point and boiling range | 134 - 136 °C - lit. |
| g) Flash point | 39 °C - closed cup |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 12,2 %(V) Lower explosion limit: 1,4 %(V) |
| k) Vapour pressure | 8,16 hPa at 20 °C |
| l) Vapour density | 3,08 - (Air = 1.0) |
| m) Relative density | 0,886 g/mL at 20 °C |
| n) Water solubility | soluble |
| o) Partition coefficient: n-octanol/water | log Pow: -0,549 at 23 °C |
| p) Auto-ignition temperature | 230 °C at 1.013 hPa |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | Not explosive |
| t) Oxidizing properties | No data available |

9.2 Other safety information

| | |
|-------------------------|--------------------|
| Dissociation constant | 9,3 at 1.000 mg/l |
| Relative vapour density | 3,08 - (Air = 1.0) |

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Oxidizing agents, Copper, Zinc, Iron, Do not store near acids.

10.6 Hazardous decomposition products

Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 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 - 4 h - 1641 ppm
(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 sensitisation

Buehler Test - Guinea pig

Result: Does not cause skin sensitisation.

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.

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

SECTION 12: Ecological information

12.1 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

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 14 d
Result: 60,5 % - Readily biodegradable.
(OECD Test Guideline 301C)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Harmful to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 2051 IMDG: 2051 IATA: 2051

14.2 UN proper shipping name

ADR/RID: 2-DIMETHYLAMINOETHANOL
IMDG: 2-DIMETHYLAMINOETHANOL
IATA: 2-Dimethylaminoethanol

14.3 Transport hazard class(es)

ADR/RID: 8 (3) IMDG: 8 (3) IATA: 8 (3)

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

| | |
|-------------|--|
| Acute Tox. | Acute toxicity |
| Flam. Liq. | Flammable liquids |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H302 + H312 | Harmful if swallowed or in contact with skin |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H331 | Toxic if inhaled. |
| Skin Corr. | Skin corrosion |

Full text of R-phrases referred to under sections 2 and 3

| | |
|-----------|---|
| C | Corrosive |
| R10 | Flammable. |
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| R34 | Causes burns. |

Further information

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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.