

SAFETY DATA SHEET

DIMETHYLAMINOETHANOL

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

1.1 Product identifier:	
CAS Number:	108-01-0
EC number:	203-603-9
1.2 SYNONYMS:	• 2-Dimethylethanolamine • N,N-Dimethylethanolamine • DMAE • Dimethylaminoethanol • 2-(Dimethylamino)ethanol • N,N-Dimethyl-2-aminoethanol • Ethanol, 2-(dimethylamino)

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Flammable liquid (Category 3) Acute toxicity, inhalation (Category 3) Serious eye damage/ eye irritation (category 1) Skin corrosion/ irritation (Category 1) Skin sensitization (category 1) Specific target organ toxicity, repeated exposure (category 2) Short term (acute) hazardous to the environment (category 3)
Hazard Pictograms:	
Signal Word:	Danger

Hazard statements:	H226: Flammable liquid and vapor. H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H331: Toxic if inhaled. H373: May cause damage to organs (respiratory system) through prolonged or repeated exposure. H402: Harmful to aquatic life.
Precautionary Statements:	P102: Keep out of reach of children. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/lighting equipment. P242: Use non-sparking tools. P243: Take precautionary measures against static discharge. P260: Do not breathe dust/fume/gas/mist/vapors/spray. P261: Avoid breathing vapors. P264: Wash hands thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

	P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P370 + P378: In case of fire: Use dry chemical, foam, or carbon dioxide for extinction. P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking. P403 + P235: Store in a well-ventilated place. Keep cool. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.
2.3 Other hazards:	
Inhalation:	may cause irritation to the respiratory system, leading to symptoms such as coughing, shortness of breath, and discomfort in the throat or chest.
Ingestion:	can cause gastrointestinal irritation, nausea, vomiting, abdominal pain,
Skin Contact:	may cause irritation, redness and itching and burning sensation.
Eye contact:	can cause severe irritation, redness, pain, and potential eye damage.
Chronic Exposure:	may lead to prolonged irritation of the skin, eyes, or respiratory system, and could potentially cause more severe health effects such as liver or kidney damage
Aggravation of pre-existing conditions:	may aggravate pre-existing conditions like respiratory disorders, or skin conditions like dermatitis.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 108-01-0 DIMETHYLAMINOETHANOL
Identification number(s):	EC number: 203-603-9

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
After skin contact:	Remove contaminated clothing. Wash with soap and water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Prolonged exposure may cause chronic effects.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam.
5.2 Special hazards arising from the substance or mixture:	Formation of explosive dust/air mixtures is possible. In case of fire, carbon monoxide can be formed.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area.
Requirements to be met by storerooms and receptacles:	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.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 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:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	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. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties General Information	
Appearance: Form:	Liquid
Colour:	Colourless
Odour:	Ammoniacal
pH-value:	No data available
Melting point/Melting range:	-64°C
Boiling point/Boiling range:	134.6°C
Flammability (solid, gaseous):	Highly flammable
Ignition temperature:	220°C
Decomposition temperature:	No data available
Self-igniting:	No
Flash point:	40.5°C
Danger of explosion:	Yes

Explosion limits: Lower:	1.4%
Explosion limits: Upper:	11%
Vapour pressure:	612 Pa at 20°C
Density at 20 °C:	0.86
Relative density:	0.86
Vapour density:	3.3
Evaporation rate:	No data available
Solubility in / Miscibility with- water at 20 °C:	Readily miscible
Partition coefficient:(n- octanol/water)	-0.69
Viscosity:	2.4mPa.s at 25°C

SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	This chemical is stable under storage conditions.
10.3 Possibility of hazardous reactions	Reacts violently with acids, acid chlorides, oxidants and isocyanates, creating a risk of fire and explosion. When burned, it decomposes to produce toxic gases containing nitrogen oxides. Attacks copper and copper alloys.
10.4 Conditions to avoid	Keep away from heat, spark and flame.
10.5 Incompatible materials	Acids, acid chlorides, oxidants, isocyanic acid
10.6 Hazardous decomposition products	Carbon dioxides, carbon monoxide nitrogen oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat) : no data available LD50 (Dermal, Rabbit) : no data available

	LC50 (Inhalation Rat) : no data available
Skin corrosion/Irritation:	Causes skin burns
Serious eye damage/irritation:	Causes serious eye damage.
Respiratory damage/irritation:	No data available
Ingestion:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	May cause damage to respiratory system.
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	moderately biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish): no data available (96hr) EC50(daphnia): no data available(48hr) EC50(algae): no data available(72hr)
12.2 Persistence and degradability:	readily biodegradable
12.3 Bioaccumulative potential:	Low bioaccumulative
12.4 Mobility in soil:	High mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Water, Isopropyl alcohol, ethanol, acetone, Sodium Bicarbonate.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	2051
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	2-Dimethylaminoethanol
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	8
14.4 Packing group · ADR, IMDG, IATA:	3
14.5 Environmental hazards:	Harmful for aquatic life.
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is not classified in listed substance.
Named dangerous substances:	This substance is not listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.