

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Revision: 15.12.2022

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

- **Product identifier**
- **Trade name:** Dimethylethanolamine
- **Article number:** 839
- **CAS Number:**
108-01-0
- **EC number:**
203-542-8
- **Index number:**
603-047-00-0
- **Registration number** 01-2119492298-24
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Chemical.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Möller Chemie GmbH & Co. KG
Bürgerkamp 1
D-48565 Steinfurt
Tel.: 02551/9340-0
Fax: 02551/9340-60
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
Poison Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Revision: 15.12.2022

Trade name: *Dimethylethanolamine*

(Contd. of page 1)

· **Hazard pictograms**

GHS02 GHS05 GHS06

· **Signal word** *Danger*· **Hazard statements**

- H226* *Flammable liquid and vapour.*
H302+H312 *Harmful if swallowed or in contact with skin.*
H331 *Toxic if inhaled.*
H314 *Causes severe skin burns and eye damage.*
H335 *May cause respiratory irritation.*

· **Precautionary statements**

- P303+P361+P353* *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*
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/doctor.*
P321 *Specific treatment (see on this label).*
P362+P364 *Take off contaminated clothing and wash it before reuse.*
P405 *Store locked up.*
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Other hazards**

The product does not contain any substance above the legal limits included on the list for endocrine disrupting properties established under Article 59(1) of Regulation (EC) No 1907/2006 or under Commission Delegated Regulation (EU) 2017/2100 or of Commission Regulation (EU) 2018/605 has endocrine disrupting properties.

· **Results of PBT and vPvB assessment**· **PBT:**

The product does not contain any substances above legal limits that meet the criteria for PBT (persistent, bioaccumulative and toxic).

· **vPvB:**

The product does not contain any substances above legal limits that meet the criteria for vPvB (very persistent and very bioaccumulative).

3 Composition/information on ingredients

· **Chemical characterisation: Substances**· **CAS No. Description**

108-01-0 2-dimethylaminoethanol

· **Identification number(s)**

· **EC number:** 203-542-8

· **Index number:** 603-047-00-0

4 First aid measures

· **Description of first aid measures**

- **After inhalation:** *Supply fresh air, consult doctor in case of complaints.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Call for a doctor immediately.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Revision: 15.12.2022

Trade name: **Dimethylethanolamine**

(Contd. of page 2)

- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide, carbon dioxide
Nitrogen oxides (NO_x)
Ammonia (NH₃)
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in cool, dry conditions in tightly closed containers.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**
Yellowing possible after a long period of storage.
Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Revision: 15.12.2022

Trade name: Dimethylethanolamine

(Contd. of page 3)

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Neoprene gloves

Butyl rubber, BR

Nitrile rubber, NBR

Rubber gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Impervious protective clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Fluid

Colour:

colorless to light yellow

· **Odour:**

Ammonia-like

· **Odour threshold:**

Not determined.

· **pH-value (100 g/l) at 20 °C:**

10.5 - 11

· **Change in condition**

Melting point/freezing point:

<-59 °C

Initial boiling point and boiling range:

133 °C

· **Flash point:**

39 - 41 °C

· **Ignition temperature:**

245 °C

· **Decomposition temperature:**

Not determined.

· **Auto-ignition temperature:**

Not determined.

· **Explosive properties:**

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Revision: 15.12.2022

Trade name: Dimethylethanolamine

(Contd. of page 4)

· Explosion limits:	
Lower:	1.4 Vol %
Upper:	12.2 Vol %
· Vapour pressure at 20 °C:	5.6 hPa
· Density at 20 °C:	0.89 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	3.85 mPas
Kinematic:	Not determined.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
Strong exothermic reaction with acids.
Reacts with oxidising agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
Oxidizing agents, acids.
Nitrites, nitrates.
- **Hazardous decomposition products:**
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
Harmful if swallowed or in contact with skin.
Toxic if inhaled.

· **LD/LC50 values relevant for classification:**

Dermal	LD50	1.370 mg/kg (rabbit)
Inhalative	LC50/ 4h	3.25 mg/l (mouse)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
The product does not contain any substance above the legal limits included on the list for endocrine disrupting properties established under Article 59(1) of Regulation (EC) No 1907/2006 or under Commission Delegated Regulation (EU) 2017/2100 or of Commission Regulation (EU) 2018/605 has endocrine disrupting properties.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Revision: 15.12.2022

Trade name: Dimethylethanolamine

(Contd. of page 5)

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:**
LC50/96 h: 146.6 mg/l (fish)
EC10 > 7000 mg/l (*Pseudomonas putida*)
EC50/48 h: 98.4 mg/l (*Daphnia magna*)
- **Persistence and degradability** Easily biodegradable
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** Keine wesentliche Bioakkumulation
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **Results of PBT and vPvB assessment**
- **PBT:** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
- **vPvB:** This substance is not considered to be very persistent nor very bioaccumulative (vPvB).
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Disposal according to local regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- | | |
|----------------------------------|-----------------------------|
| · UN-Number | |
| · ADR, IMDG, IATA | UN2051 |
| · UN proper shipping name | |
| · ADR | 2051 2-DIMETHYLAMINOETHANOL |
| · IMDG, IATA | 2-DIMETHYLAMINOETHANOL |

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Revision: 15.12.2022

Trade name: Dimethylethanolamine

(Contd. of page 6)

· **Transport hazard class(es)**· **ADR**

· **Class** 8 (CF1) Corrosive substances.
· **Label** 8+3

· **IMDG**

· **Class** 8 Corrosive substances.
· **Label** 8/3

· **IATA**

· **Class** 8 Corrosive substances.
· **Label** 8 (3)

· **Packing group**· **ADR, IMDG, IATA**

II

· **Environmental hazards:**· **Marine pollutant:**

No

· **Special precautions for user**

Warning: Corrosive substances.

· **Hazard identification number (Kemler code):**

83

· **EMS Number:**

F-E,S-C

· **Stowage Category**

A

· **Segregation Code**

SG35 Stow "separated from" SGG1-acids

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADR**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category**

2

· **Tunnel restriction code**

D/E

· **IMDG**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 2051 2-DIMETHYLAMINOETHANOL, 8 (3), II

EU

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Revision: 15.12.2022

Trade name: **Dimethylethanolamine**

(Contd. of page 7)

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
Substance is not listed.
- **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department
- **Contact:** Mrs. Steyer
- **Abbreviations and acronyms:**
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 3: Flammable liquids – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 Acute Tox. 3: Acute toxicity – Category 3
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

EU