

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.02.2023

Version number 1

Revision: 23.01.2023

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

- **1.1 Product identifier**
- **Trade name:** diethanolamine
- **Article number:** 785
- **CAS Number:**
111-42-2
- **EC number:**
203-868-0
- **Index number:**
603-071-00-1
- **Registration number** 01-2119488930-28
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Chemical.
- **1.3 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
- **1.4 Emergency telephone number:**
Poison Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240

SECTION 2: Hazards identification

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



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

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



GHS05



GHS07



GHS08

- **Signal word** *Danger*

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 1

Revision: 23.01.2023

Trade name: diethanolamine

(Contd. of page 1)

· Hazard statements*H302 Harmful if swallowed.**H315 Causes skin irritation.**H318 Causes serious eye damage.**H373 May cause damage to organs through prolonged or repeated exposure.***· Precautionary statements***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).**P330 Rinse mouth.**P362+P364 Take off contaminated clothing and wash it before reuse.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***· 2.3 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).***SECTION 3: Composition/information on ingredients****· 3.1 Substances****· CAS No. Description***111-42-2 diethanolamine***· Identification number(s)****· EC number:** 203-868-0**· Index number:** 603-071-00-1**SECTION 4: First aid measures****· 4.1 Description of first aid measures****· General information:***Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.***· 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.**Seek medical treatment.***· 4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.***· 4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.***SECTION 5: Firefighting measures****· 5.1 Extinguishing media****· Suitable extinguishing agents:** *CO₂, powder or water spray. Fight larger fires with water spray.*

(Contd. on page 3)

Safety data sheet

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Version number 1

Revision: 23.01.2023

Trade name: diethanolamine

(Contd. of page 2)

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Avoid contact with eyes and skin
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 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.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Avoid contact with eyes and skin.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Do not store together with acids.
- **Further information about storage conditions:**
Storage temperature: 20 - 40 ° C
Storage period: 12 months
Discoloration possible after a long period of storage.
Store in a cool and dry place. Keep container closed when not in use.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **Respiratory protection:** Suitable respiratory protective device recommended.
- **Hand protection**



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**
Nitrile rubber, NBR

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.02.2023

Version number 1

Revision: 23.01.2023

Trade name: diethanolamine

(Contd. of page 3)

Butyl rubber, BR

Chloroprene rubber, CR

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/face protection**



Tightly sealed goggles

- **Body protection: Protective work clothing**

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

· Colour:	Colourless
· Odour:	Ammonia-like
· Melting point/freezing point:	27.4 °C
· Boiling point or initial boiling point and boiling range	269.9 °C
· Lower and upper explosion limit	
· Lower:	2.1 Vol %
· Upper:	10.6 Vol %
· Flash point:	176 °C
· Ignition temperature:	370 °C
· pH (53 g/l) at 20 °C	11
· Viscosity:	
· Dynamic at 30 °C:	352 mPas
· Solubility	
· water at 20 °C:	954 g/l
· Vapour pressure at 10 °C:	2 hPa
· Density and/or relative density	
· Density at 20 °C:	1.0953 g/cm ³

- **9.2 Other information**

- **Appearance:**

- **Form:** solidified, liquid

- **Important information on protection of health and environment, and on safety.**

- **Explosive properties:** Product does not present an explosion hazard.

- **Information with regard to physical hazard classes**

· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void

(Contd. on page 5)

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

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Version number 1

Revision: 23.01.2023

Trade name: diethanolamine

(Contd. of page 4)

- | | |
|--|------|
| · Substances and mixtures, which emit flammable gases in contact with water | Void |
| · Oxidising liquids | Void |
| · Oxidising solids | Void |
| · Organic peroxides | Void |
| · Corrosive to metals | Void |
| · Desensitised explosives | Void |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Strong exothermic reaction with acids.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

· **Acute toxicity**
Harmful if swallowed.

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

Dermal	LD50	12.200 mg/kg (rabbit)
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- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Mutagenicity:
No experimental indications of genotoxicity in vitro available. (Ames test negative).
- **11.2 Information on other hazards**
- **Endocrine disrupting properties** Substance is not listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential**
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

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(Contd. of page 5)

- **vPvB:** This substance is not considered to be very persistent nor very bioaccumulative (vPvB).
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Remark:**
 Fish toxicity:
 LC50 / 96 h: 1460 mg / l (Pimephales promelas)
 Aquatic invertebrates.
 EC50 / 48 h: 55 mg / l (Daphnia magna)
 Aquatic plants:
 EC50 / 72 h: 7.8 mg / l (Scenedesmus subspicatus)
- **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.

SECTION 13: Disposal considerations

- **13.1 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.

SECTION 14: Transport information

- | | |
|---|-----------------|
| <ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | Void |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: | Not applicable. |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |
| <ul style="list-style-type: none"> · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **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.

(Contd. on page 7)

Safety data sheet
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Trade name: diethanolamine

(Contd. of page 6)

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 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

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

EU