

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

Printing date 10.02.2023





Version number 1

Revision: 06.01.2023

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

- **1.1 Product identifier**
- **Trade name:** aminoethylpiperazine
- **Article number:** 368
- **CAS Number:**
140-31-8
- **EC number:**
205-411-0
- **Index number:**
612-105-00-4
- **Registration number** 01-2119471486-30
- **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** Intermediate.
- **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**
- 
GHS06 skull and crossbones
 Acute Tox. 3 H311 Toxic in contact with skin.
- 
GHS08 health hazard
 Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
 STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.
- 
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.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
 Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.

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· Hazard pictograms



GHS05 GHS06 GHS08

· Signal word Danger

· Hazard statements

- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H412 Harmful to aquatic life with long lasting effects.

· 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).
- P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
- P405 Store locked up.
- 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

140-31-8 aminoethylpiperazine

· Identification number(s)

· EC number: 205-411-0

· Index number: 612-105-00-4

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air and to be sure call for a doctor.
- **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:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

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- **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 fire with alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 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)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** 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).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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**
Wear protective equipment. Keep unprotected people away.
Ensure good ventilation / exhaustion at the workplace.
- **Information about fire - and explosion protection:** Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Protect from heat and direct sunlight.
- **Information about storage in one common storage facility:** Not mandatory.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class:** 6.1 C
- **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.
- **DNELs**
worker:
Inhalation, long-term, systemic: 10.6 mg/m³
Inhalation, short-term, systemic: 10.6 mg/m³

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Consumer:

Inhalation, long-term, local: 0.015 mg/m³

Inhalation, short-term, local: 80 mg/m³

· **PNECs**

Fresh water: 0.058 mg/l

Sea water: 0.0058 mg/l

sporadic release: 0.58 mg/l

Sewage treatment plant: 250 mg/l

Sediment (fresh water): 215 mg/kg

Sediment (seawater): 215 mg/kg

Soil: 42.9 mg/kg

· **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**

Butyl rubber, BR

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:** *Use protective suit.*

SECTION 9: Physical and chemical properties

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

· **General Information**

· Colour:	<i>colorless to yellow</i>
· Odour:	<i>Amine-like</i>
· Odour threshold:	<i>Not determined.</i>
· Melting point/freezing point:	<i>-18 °C</i>
· Boiling point or initial boiling point and boiling range	<i>222 °C</i>
· Flammability	<i>Not applicable.</i>
· Lower and upper explosion limit	
· Lower:	<i>2.1 Vol %</i>
· Upper:	<i>10.5 Vol %</i>
· Flash point:	<i>92 °C</i>
· Ignition temperature:	<i>315 °C</i>
· Decomposition temperature:	<i>Not determined.</i>

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· pH (100 g/l) at 20 °C	12
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	0.07 hPa
· Density and/or relative density	
· Density at 20 °C:	0.989 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· **9.2 Other information**

· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not determined.

· **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
· 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** Exothermic reaction with acids.
- **10.4 Conditions to avoid** Protect from heat and direct sunlight.
- **10.5 Incompatible materials:**
Acids.
Strong oxidizing agents
- **10.6 Hazardous decomposition products:**
Carbon monoxide

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Nitrogen oxides (NOx)

SECTION 11: Toxicological information

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

· Acute toxicity

Harmful if swallowed.

Toxic in contact with skin.

· LD/LC50 values relevant for classification:

Dermal	LD50	880 mg/kg (rabbit)
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· Skin corrosion/irritation

Causes severe skin burns and eye damage.

· Serious eye damage/irritation

Causes serious eye damage.

· Respiratory or skin sensitisation

May cause an allergic skin reaction.

· 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

Suspected of damaging fertility. Suspected of damaging the unborn child.

· STOT-single exposure Based on available data, the classification criteria are not met.

· STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure.

· Aspiration hazard Based on available data, the classification criteria are not met.

· 11.2 Information on other hazards

· Endocrine disrupting properties Substance is not listed.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

Fish toxicity:

LC50/96 h: 368 mg/l (*Leuciscus idus*)

Aquatic invertebrates:

EC50/48 h: 58 mg/l (*Daphnia magna*)

aquatic plants:

EC50/72 h: 494 mg/l (*Scenedesmus subspicatus*)

Microorganisms/effect on activated sludge:

EC50/17 h >1090 mg/l (*Pseudomonas putida*)

· 12.2 Persistence and degradability Not easily biodegradable

· 12.3 Bioaccumulative potential Non significant accumulation in organisms

· 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).

· **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:** Harmful to fish

· Additional ecological information:

· General notes:

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

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Harmful to aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

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

- **14.1 UN number or ID number**
- **ADR, IMDG, IATA**

UN2815

- **14.2 UN proper shipping name**
- **ADR**
- **IMDG, IATA**

2815 N-AMINOETHYLPIPERAZINE
N-AMINOETHYLPIPERAZINE

- **14.3 Transport hazard class(es)**
- **ADR**



- **Class**
- **Label**

8 (CT1) Corrosive substances.
8+6.1

- **IMDG**



- **Class**
- **Label**

8 Corrosive substances.
8/6.1

- **IATA**



- **Class**
- **Label**

8 Corrosive substances.
8 (6.1)

- **14.4 Packing group**
- **ADR, IMDG, IATA**

III

- **14.5 Environmental hazards:**
- **Marine pollutant:**

No

- **14.6 Special precautions for user**
- **Hazard identification number (Kemler code):**
- **EMS Number:**

Warning: Corrosive substances.
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F-A,S-B

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· Stowage Category	B
· Stowage Code	SW1 Protected from sources of heat. SW2 Clear of living quarters.
· Handling Code	H2 Keep as cool as reasonably practicable
· Segregation Code	SG35 Stow "separated from" SGG1-acids
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2815 N-AMINOETHYLPIPERAZINE, 8 (6.1), III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
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
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
Skin Sens. 1: Skin sensitisation – Category 1
Repr. 2: Reproductive toxicity – Category 2

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STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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