



Safety Data Sheet According to Regulation (EU) 830/2015

1869 Ethylenediamine

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

1.1 Product identifier

Name:

Ethylenediamine

Synonym:

1,2-Diaminoethane, 1,2-Ethanediamine

REACH Registration Number: 01-2119480383-37-XXXX

1.2 Relevant identified uses of the substance or mixture:

For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

Polígono Pla de la Bruguera

E-08211 Castellar del Vallès

(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: product.safety@panreac.com

1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)

2. Identification of dangers

2.1 Classification of the substance or the mixture.

Flam. Liq. 3

Acute Tox. 4

Acute Tox. 4

Skin Corr. 1B

Resp. Sens 1

Skin Sens. 1

2.2 Label elements:

Hazard Pictograms



Signal word

Hazard statements

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

2.3 Other hazards:

No further relevant information available.

3. Composition/information on ingredients

3.1 Substances

Name: Ethylenediamine

Formula: $C_2H_8N_2$ M.= 60,10 CAS [107-15-3]

EC number (EINECS): 203-468-6

EC index number: 612-006-00-6

REACH Registration Number: 01-2119480383-37-XXXX

3.2 Mixtures

4. First aid measures

4.1 Description of first aid measures

Never provide drink or induce vomiting in the event of loss of consciousness.

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

Swallowing:

Drink lemon juice, vinegar or milk mixed with raw eggs. Subsequently, drink large amounts of water. Avoid vomiting (there is a risk of perforation). Seek immediate medical assistance.

Inhaling:

Take the person out into the fresh air. In the event of suffocation, proceed to provide artificial respiration.

Contact with the skin:

Wash with plenty of water. Remove contaminated clothing. Take the product out with cotton wool soaked in polyethylene-glycol 400.

Eyes:

Wash with plenty of water (for at least 15 minutes), keeping eyelids open. Seek medical assistance.

5. Firefighting measures

5.1 Extinguishing media:

Water. Carbon dioxide (CO₂). Alcohol resistant foam. Dry powder.

5.2 Special hazards arising from the substance or mixture:

Combustible. Keep away from sources of ignition. Auf Rückzündung achten The fumes are heavier than air, so they may spread at floor level. In the event of fire, toxic fumes may form.

5.3 Advice for firefighters:

Suitable clothing and footwear.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Do not inhale the fumes.

6.2 Environmental precautions:

Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.

6.3 Methods and material for containment and cleaning up:

Collect up with absorbent materials (Panreac General Absorbent, Kieselguhr, etc.) or, if none available, dry sand or earth, and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water.

6.4 Reference to other sections

Not applicable

7. Handling and storage

7.1 Precautions for safe handling:

Avoid the formation of electrostatic charges. Handle under an extractor fan.

7.2 Conditions for safe storage, including any incompatibilities:

Well sealed containers. Dry atmosphere. In a cool place. Protected from air.

7.3 Specific end use(s)

No more relevant data available

8. Exposure controls/personal protection

8.1 Control parameters:

TLV-TWA: 10 ppm = 25 mg/m³ VLA-ED: 10 ppm = 25 mg/m³ dermal resorption

8.2 Exposure controls

No special indications.

Respiratory protection:

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter A. Filter P.

Hand protection:

Use suitable gloves

Eye/face protection:

Use safety glasses.

Individual hygiene measures:

Remove contaminated clothing. Use suitable work clothing. Wash hands and face before breaks and when the job is done. Do not inhale the substance.

Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: liquid

Colour: Colourless

Granulometry: N/A

Odour: Characteristic.

pH: 12 ((250 g/l))

Melting point/freezing point: 8,5 °C

Initial boiling point and boiling range: 116,5 °C

Flash point: 34 °C

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits: 16,6 %(V) / 2,7 %(V)

Vapour pressure: 12 hPa (20 °C)

Vapour density: N/A

Relative density: (20/4) 0,898 g/ml

Solubility: Miscible with water

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature: 385 °C

Decomposition temperature: N/A

Kinematic viscosity: N/A
Dynamic viscosity: 1,54 mPa.s (25 °C)

9.2 Other information

No more relevant data available

10. Stability and reactivity

10.1 Reactivity

No specific data.

10.2 Chemical stability:

Hygroscopic.

10.3 Possibility of hazardous reactions

No specific data.

10.4 Conditions to avoid:

High temperatures.

10.5 Incompatible materials:

Acids. Air

10.6 Hazardous decomposition products:

No specific data.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 oral rat : 500 mg/kg

LD50 skn rbt : 730 mg/kg

TC L0 inh man : 200 ppm

LC L0 inh mus : 300 g/m³ 1h

LC L0 inh rat : 4000 ppm 8h

LD50 ipr mus : 200 mg/kg

Dangerous effects for health:

If inhaled: Irritations to the mucosae coughing breathing difficulties sensitization

Upon contact with the skin: burns sensitization Through contact with the eyes:

burns sensitization allergic reaction May cause: hepatic problems kidney problems

Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

12. Environmental information

12.1 Toxicity:

- EC50 test (mg/l):

Bacteria (Photobacterium phosphoreum) 20,4 mg/l

Classification:

Extr. toxic

- Receptor medium:

Risk for the water environment

Medium

Risk for the land environment

Medium

- Observations:

12.2 Persistence and Degradability :

- Test:

- Biotic degradation classification:

BOD5/COD

Biodegradability

- Abiotic degradation depending on pH:

- Observations:

Data not available.

12.3 Bioaccumulative potential:

- Test:

- Bioaccumulation:

Risk

- Observations:

12.4 Mobility in soil :

Data not available.

12.5 Assessment PBT and MPMB :

Data not available.

12.6 Other adverse effects:

Do not allow it to enter soils or water channels.

13. Disposal considerations

13.1 Waste treatment methods:

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

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Contaminated containers:

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

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14. Transport information

14.1 UN number

UN1604

14.2 UN proper shipping name

ETHYLENEDIAMINE

14.3 Transport hazard class(es)

8

3

14.4 Packing group

ADR/IMDG: II

IATA: II

14.5 Environmental hazards**14.6 Special precautions for user**

Not applicable

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

Not applicable

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

15.2 Chemical safety assessment

Not applicable

16. Other information

Other precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash...thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves, protective clothing, eye protection or face protection.
P285 In case of inadequate ventilation wear respiratory protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P321 Specific treatment (see on this label).
P322 Specific measures (see on this label).
P330 Rinse mouth.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P338 Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use for extinction.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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In respect of the previous review, changes have been made to the following sections: 2

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.