



2308 Copper(II) Ethylenediamine Reagent

1. Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation

Name:

Copper(II) Ethylenediamine Reagent

Synonym:

CED, Copper(II) Ethylenediamine in solution, Cupriethylenediamine

REACH Registration Number: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) N° 1907/2006, the annual tonnage does not require a registration, the registration is envisaged for a later registration deadline or it is a mixture.

1.2 Use of the substance/preparation:

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

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1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

2. Identification of dangers

Classification of the substance or the mixture.

Classification Regulation (CE) n° 1272/2008.

Skin Sens. 1

Skin Corr. 1B

Aquatic Chronic 3

Hazard Pictograms



Signal word

Danger

Hazard statements

H317 May cause an allergic skin reaction.

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Classification (67/548/CEE or 1999/45/CE).

C Corrosive

R52

R34

R43

For the full text of the R-phrases mentioned in this section, see section 16.

3. Component Composition/Information

Aqueous solution

Name: Copper(II) Ethylenediamine Reagent

Composition:**0001: Copper(II) Sulphate 5-hydrate**

Formula: $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ M.= 249,68 CAS [7758-99-8]

EC number (EINECS): 231-847-6

EC index number: 029-004-00-0

REACH Registration Number: 01-2119520566-40-XXXX

Content: $\geq 28\%$ $\leq 32\%$

Classification Regulation (CE) n° 1272/2008.

Acute Tox. 4

Eye Irrit. 2

Skin Irrit. 2

Aquatic Acute 1

Aquatic Chronic 1

Hazard Pictograms

Signal word

Warning

Hazard statements

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P264 Wash...thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

Classification (67/548/CEE or 1999/45/CE).

N Dangerous for the environment

Xn Harmful

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R36/38 Irritating to eyes and skin.

R22 Harmful if swallowed.

0002: Ammonia 20% *(as NH₃)

Formula: NH₃ M.= 17,03 CAS [1336-21-6]

EC number (EINECS): 215-647-6

EC index number: 007-001-01-2

Content: >= 10 % <= 15 %

Classification Regulation (CE) n° 1272/2008.

Skin Corr. 1B

Aquatic Acute 1

STOT SE 3

Hazard Pictograms



Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P321 Specific treatment (see on this label).

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P310 Immediately call a POISON CENTER or doctor/physician.

Classification (67/548/CEE or 1999/45/CE).

C Corrosive

R34 Causes burns.

N Dangerous for the environment

R50 Very toxic to aquatic organisms.

0003: Sodium Hydroxide solution 50% w/w

Formula: NaOH M.= 40,00 CAS [1310-73-2]

EC number (EINECS): 215-185-5

EC index number: 011-002-00-6

REACH Registration Number: 01-2119457892-27-XXXX

Content: >= 40 % <= 45 %

Classification Regulation (CE) n° 1272/2008.

Skin Corr. 1A

Hazard Pictograms



Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

P304+P340 IF INHALED: 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.

P321 Specific treatment (see on this label).

P338 Remove contact lenses, if present and easy to do. Continue rinsing.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

Classification (67/548/CEE or 1999/45/CE).**C** Corrosive**R35** Causes severe burns.**0004: Ethylenediamine**Formula: C₂H₈N₂ M.= 60,10 CAS [107-15-3]

EC number (EINECS): 203-468-6

EC index number: 612-006-00-6

Content: >= 12 % <= 15 %**Classification Regulation (CE) n° 1272/2008.**

Flam. Liq. 3

Acute Tox. 4

Acute Tox. 4

Skin Corr. 1B

Resp. Sens 1

Skin Sens. 1

Hazard Pictograms**Signal word**

Danger

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/sparks/open flames/hot surfaces. 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.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P261 Avoid breathing dust/fume/gas/mist/vapours/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/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.

Classification (67/548/CEE or 1999/45/CE).

C Corrosive

R42/43 May cause sensitisation by inhalation and skin contact.

R34 Causes burns.

R21/22 Harmful in contact with skin and if swallowed.

R10 Flammable.

4. First aid

4.1 General indications:

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

4.2 Inhaling:

Take the person out into the fresh air. In the event sickness persists, seek medical assistance.

4.3 Contact with the skin:

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

4.4 Eyes:

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

4.5 Swallowing:

Drink large amounts of water. Seek immediate medical assistance.

5. Fire-fighting means

5.1 Suitable fire-extinguishing means:

Water. Foam.

5.2 Fire-fighting means which must NOT be used:

No specific data.

5.3 Special risks:

Incombustible.

5.4 Protective equipment:

Suitable clothing and footwear.

6. Measures to be taken in the event of accidental spillage

6.1 Individual precautions:

No special indications.

6.2 Precautions for care of the environment:

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

6.3 Methods for collection/cleaning:

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.

7. Handling and storage

7.1 Handling:

No special indications.

7.2 Storage:

Well sealed containers. Room temperature.

8. Staff exposure/protection controls

8.1 Technical protective measures:

No special indications.

8.2 Exposure limit control:

: Data not available.

8.3 Respiratory protection:

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

8.4 Hand protection:

Use suitable gloves

8.5 Eye protection:

Use suitable goggles.

8.6 Individual hygiene measures:

Remove contaminated clothing. Use suitable work clothing. Wash hands and face before breaks and when the job is done.

8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

9. Physical and chemical properties

Appearance: N/A

Colour:

N/A

Granulometry: N/A

Odour: Characteristic.

pH: 12,2

Melting point/freezing point: N/A

Initial boiling point and boiling range:

N/A

Flash point:

N/A

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits:

N/A

Vapour pressure: N/A

Vapour density: N/A
Relative density: (20/4) 1,10
Solubility: in Miscible with water
Partition coefficient: n-octanol/water:
N/A
Auto-ignition temperature:
N/A
Decomposition temperature: N/A
Viscosity: N/A

10. Stability and reactivity

10.1 Conditions which should be avoided:

High temperatures.

10.2 Matter which should be avoided:

No specific data.

10.3 Hazardous decomposition products:

No specific data.

10.4 Complementary information:

No specific data.

11. Toxicological information

11.1 Acute toxicity:

LD50 oral rat : 750 mg/kg referred to the pure substance

LD50 skn rbt : 8.000 mg/kg

11.2 Dangerous effects for health:

If fumes inhaled: Irritations to the respiratory tracts. Upon contact with the skin: irritations Risk of burns Through contact with the eyes: irritations Risk of burns If swallowed: Irritations of the mucosae in the mouth, throat, oesophagus and intestinal tract. Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

12. Environmental information

12.1 Toxicity:

12.1.1 - EC50 test (mg/l):

Bacteria (Photobacterium phosphoreum) (Cu) 0,27 mg/l

Classification:

Extr. toxic

Bacteria (Cu) 1 mg/l

Classification:

Extr. toxic

Algae (Cu) 1 mg/l

Classification: Extr. toxic

Protozoa: (Cu) 1 mg/l

Classification: Extr. toxic

Fish (Cu) 1 mg/l

Classification: Extr. toxic

Fish (C. auratus) (Cu) 0,01 mg/l

Classification: Extr. toxic

Bivalves. (Cu) 0,55 mg/l

Classification: Extr. toxic

Oysters. (Cu) 0,1 mg/l

Classification: Extr. toxic

12.1.2. - Receptor medium:

Risk for the water environment

High

Risk for the land environment Medium

12.1.3. - Observations:

Highly toxic throughout the trophic chain.

High toxicity in water environment.

12.2 Persistence and Degradability :

12.2.1 - Test:

12.2.2. - Biotic degradation classification:

BOD5/COD

Biodegradability

12.2.3. - Abiotic degradation depending on pH:

12.2.4. - Observations:

12.3 Bioaccumulative potential:

12.3.1. - Test:

12.3.2. - Bioaccumulation:

Risk

12.3.3. - Observations:

12.4 Mobility in soil :

Data not available.

12.5 Assessment PBT and MPMB :

Data not available.

12.6 Other possible effects on the environment:

Do not allow it to enter soils or water channels.

13. Considerations regarding elimination

13.1 Substance or preparation:

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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13.2 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. Information concerning transport

Overland (ADR):

Technical name: CUPRIETHYLENEDIAMINE SOLUTION

UN 1761 Class: 8 6.1 CONTAM. MAR Packaging group: II (E)

By sea (IMDG):

Technical name: CUPRIETHYLENEDIAMINE SOLUTION

UN 1761 Class: 8 6.1 CONTAM. MAR Packaging group: II

By air (ICAI-IATA):

Technical name: Cupriethylenediamine solution

UN 1761 Class: 8 6.1 CONTAM. MAR Packaging group: II

Packaging instructions: CAO 855 PAX 851

15. Regulatory information

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

16. Other information

Other precautionary statements

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.

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.

P321 Specific treatment (see on this label).

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P338 Remove contact lenses, if present and easy to do. Continue rinsing.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

Labelling (65/548/CEE or 1999/45/CE)

R-phrase(s): **R52** Harmful to aquatic organisms.
 R34 Causes burns.
 R43 May cause sensitisation by skin contact.

S-phrase(s): **S45** In case of accident or if you feel unwell,
 seek medical advice immediately (show the label
 where possible).
 S36/37/39 Wear suitable protective clothing,
 gloves and eye/face protection.
 S26 In case of contact with eyes, rinse
 immediately with plenty of water and seek
 medical advice.
 S9 Keep container in a well-ventilated place.
 S61 Avoid release to the environment. Refer to
 special instructions/safety data sheets.

Review number and date: 4 15.09.2011

Date published: 15.09.2011

In respect of the previous review, changes have been made to the following sections: 15

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.