



## Safety Data Sheet According to Regulation (EC) 1907/2006

### 1321 **1,10-Phenanthroline 1-hydrate**

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

##### **1.1 Product identifier**

Name:

1,10-Phenanthroline 1-hydrate

##### **Synonym:**

o-Phenanthroline

**CAS:** [5144-89-8]

**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 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](mailto:product.safety@panreac.com)

##### **1.4 Emergency telephone:**

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

#### **2. Identification of dangers**

##### **2.1 Classification of the substance or the mixture.**

**Classification Regulation (CE) n° 1272/2008.**

Acute Tox. 3

Aquatic Acute 1

Aquatic Chronic 1

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

N Dangerous for the environment  
T Toxic

R50/53  
R25

## 2.2 Label elements:

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H301 Toxic if swallowed.

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.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see on this label).

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

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

## 2.3 Other hazards:

No further relevant information available.

## 3. Composition/information on ingredients

Name: 1,10-Phenanthroline 1-hydrate

Formula: C<sub>12</sub>H<sub>8</sub>N<sub>2</sub>.H<sub>2</sub>O M.= 198,23 CAS [5144-89-8]

EC number (EINECS): 200-629-2

EC index number: 613-092-00-8

## 4. First aid measures

### 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.

#### **4.4 Eyes:**

Wash with plenty of water, keeping eyelids open. In the event of irritation, seek medical assistance.

#### **4.5 Swallowing:**

Drink large amounts of water. Induce vomiting. Seek immediate medical assistance.

### **5. Firefighting measures**

#### **5.1 Suitable extinguishing media:**

As appropriate to the environment.

#### **5.2 Unsuitable extinguishing media:**

No specific data.

#### **5.3 Special hazards arising from the substance or mixture:**

Combustible.

#### **5.4 Advice for firefighters:**

Suitable clothing and footwear.

### **6. Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures:**

No special indications.

#### **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 dry 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 Precautions for safe handling:**

No special indications.

#### **7.2 Conditions for safe storage, including any incompatibilities:**

Well sealed containers. Dry atmosphere.

**Recommended storage temperature:** Room temperature.

### **8. Exposure controls/personal protection**

#### **8.1 Exposure controls:**

No special indications.

## **8.2 Control parameters:**

### **8.3 Respiratory protection:**

If dust forms, use suitable respiratory protection.

### **8.4 Hand protection:**

Use suitable gloves

### **8.5 Eye/face protection:**

Use suitable goggles.

### **8.6 Individual hygiene measures:**

Remove contaminated clothing. Wash hands before breaks and when the job is done. Do not eat, drink or smoke in the workplace.

### **8.7 Environmental exposure controls:**

Fulfill the commitments under local environmental protection legislation.

## **9. Physical and chemical properties**

Appearance: solid

Colour: White

Granulometry: N/A

Odour: Odourless.

pH:

N/A

Melting point/freezing point: 93 - 94 °C

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:

Insertar Aquí Grupo de repetición

N/A

Solubility: 3,3 g/l in water ( 20 °C )

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature:

N/A

Decomposition temperature: N/A

Kinematic viscosity: N/A

Dynamic viscosity:

N/A

## **10. Stability and reactivity**

**10.1 Conditions to avoid:**

The product is chemically stable under standar ambient conditions (room temperature).

**10.2 Incompatible materials:**

No specific data.

**10.3 Hazardous decomposition products:**

No specific data.

**10.4 Chemical stability:**

No specific data.

**11. Toxicological information****11.1 Acute toxicity:**

LD50 oral rat : 132 mg/kg

**11.2 Dangerous effects for health:**

No specific data on this product known with regard to effects of overdose in humans. Harmful to the health. Take the usual precautions for handling chemical products.

**12. Environmental information****12.1 Toxicity:****- EC50 test (mg/l):****- Receptor medium:**

Risk for the water environment

Risk for the land environment

**- Observations:**

Ecotoxic data not available.

**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:**

Data not available.

**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.

If suitable handling conditions are maintained, no ecological problems are to be anticipated.

## **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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### **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. Transport information**

Overland (ADR):

Technical name: TOXIC SOLID, ORGANIC, N.O.S.

UN 2811 Class: 6.1 CONTAM. MAR PELIG.M.AMB Packaging group: III (E)

By sea (IMDG):

Technical name: TOXIC SOLID, ORGANIC, N.O.S.

UN 2811 Class: 6.1 CONTAM. MAR PELIG.M.AMB Packaging group: III

By air (ICAI-IATA):

Technical name: Toxic solid, organic, n.o.s.

UN 2811 Class: 6.1 CONTAM. MAR PELIG.M.AMB Packaging group: III

Packaging instructions: CAO 677 PAX 670

## **15. Regulatory information**

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

## **16. Other information**

### **Other precautionary statements**

P330 Rinse mouth.

P391 Collect spillage.

P405 Store locked up.

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

R-phrase(s): **R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
**R25** Toxic if swallowed.

S-phrase(s): **S61** Avoid release to the environment. Refer to special instructions/safety data sheets.  
**S60** This material and its container must be disposed of as hazardous waste.  
**S45** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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In respect of the previous review, changes have been made to the following sections: 14

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.