

Safety Data Sheet

According to Regulation (EC) 1907/2006



1453 Piperazine 6-hydrate

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

1.1 Identification of the substance or preparation

Name:

Piperazine 6-hydrate

Synonym:

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

e-mail: product.safety@panreac.com

1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

Identification of dangers

Classification of the substance or the mixture.

Classification Regulation (CE) n° 1272/2008.

Skin Corr. 1B

Resp. Sens 1

Skin Sens. 1

Repr. 2

Hazard Pictograms



Signal word

Danger

Hazard statements

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.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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

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

P264 Wash...thoroughly after handling.

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

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

R63

C Corrosive R62

Xn Harmful R42/43

R34

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

Component Composition/Information

Name: Piperazine 6-hydrate

Formula: $\text{NHCH}_2\text{CH}_2\text{NHCH}_2\text{CH}_2 \cdot 6\text{H}_2\text{O}$ M.= 194,23 CAS [142-63-2]

EC number (EINECS): 203-808-3

EC index number: 612-057-00-4

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 of suffocation, proceed immediately to provide artificial respiration. Seek immediate 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. Avoid vomiting (there is a risk of perforation). Seek medical assistance. Do not neutralize.

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:

Flammable. Keep away from sources of ignition. In the event of fire, toxic fumes may form:

5.4 Protective equipment:

Suitable clothing and footwear.

Measures to be taken in the event of accidental spillage

6.1 Individual precautions:

Avoid contact with the skin, eyes or clothing.

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 dry and deposit in waste containers for subsequent elimination in accordance with current legislation.

Handling and storage

7.1 Handling:

No special indications.

7.2 Storage:

Well sealed containers. Dry atmosphere. Atmospheric temperature. Away from light.

Staff exposure/protection controls

8.1 Technical protective measures:

No special indications.

8.2 Exposure limit control:

VLA-EC: 0,3 mg/m³

VLA-ED: 0,1 mg/m³

8.3 Respiratory protection:

If dust forms, 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 complete protective equipment. 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.

Physical and chemical properties

Appearance: solid

Colour: Colourless

Granulometry: N/A

Odour: Characteristic.

pH: 10,8 - 11,8 (10% sol, H₂O)

Melting point/freezing point: 43 - 45 °C

Initial boiling point and boiling range: 125 - 130 °C

Flash point: > 80 °C

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits:

N/A

Vapour pressure: N/A

Vapour density: N/A

Relative density:

N/A

Solubility: 300 g/l in in water at 20°C

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature:

N/A

Decomposition temperature: N/A

Viscosity: N/A

Stability and reactivity

10.1 Conditions which should be avoided:

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

10.2 Matter which should be avoided:

Nitriles. Strong oxidant agents. Nitrous acid. Nitrites. Acids. Metals and metal alloys.

10.3 Hazardous decomposition products:

No specific data.

10.4 Complementary information:

Hygroscopic.

Toxicological information

- **Acute toxicity:**

LD L0 oral rat : 500 mg/kg

LD50 oral : 4.300 mg/kg

LD50 oral mus : 11.200 mg/kg

LD50 ipr mus : 300 mg/kg

LC50 : 500 mg/l 48h

- **Dangerous effects for health:**

If inhaled: Irritations to the mucosae coughing breathing difficulties Can cause oedemas in the respiratory tract Upon contact with the skin: burns Through contact with the eyes: burns Can cause sensitization allergic reaction If swallowed: Irritations of the mucosae in the mouth, throat, oesophagus and intestinal tract. Causes nausea vomiting If swallowed in large quantities: effects on the central nervous system dizziness ataxia (motor coordination disorders) sight disorders Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

Environmental information

12.1 Toxicity:

12.1.1 - EC50 test (mg/l):

Fish (Leuciscus Idus) 500 mg/l

Classification:

Highly toxic

12.1.2. - Receptor medium:

Risk for the water environment

Medium

Risk for the land environment

Low

12.1.3. - Observations:

Ecotoxic for water and land organisms due to the pH deviation. Major acute effects in the dumping area.

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:

Data not available.

12.3 Bioaccumulative potential:

12.3.1. - Test:

12.3.2. - Bioaccumulation:

Risk

12.3.3. - Observations:

Data not available.

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.

Water-pollutant product.

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.

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.

Information concerning transport

Overland (ADR):

Technical name: PIPERAZINE

UN 2579 Class: 8 Packaging group: III (E)

By sea (IMDG):

Technical name: PIPERAZINE

UN 2579 Class: 8 Packaging group: III

By air (ICAI-IATA):

Technical name: Piperazine

UN 2579 Class: 8 Packaging group: III

Packaging instructions: CAO 864 PAX 860

Regulatory information

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

Other information

Other precautionary statements

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

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

P281 Use personal protective equipment as required.

P285 In case of inadequate ventilation wear respiratory protection.

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.

P308+P313 IF exposed or concerned: Get medical advice/attention.

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.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

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

R-phrase(s):	R63 Possible risk of harm to the unborn child. R62 Possible risk of impaired fertility. R42/43 May cause sensitisation by inhalation and skin contact. R34 Causes burns.
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. S23a Do not breathe gas

Review number and date: 4 15.09.2011

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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.