



Safety Data Sheet

According to Regulation (EC) 1907/2006



2788 Lithium Perchlorate 3-hydrate

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

1.1 Identification of the substance or preparation

Name:

Lithium Perchlorate 3-hydrate

1.2 Synonym:

1.3 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

1.4 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

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Emergencies:

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.

Ox. Sol. 1

Acute Tox. 4

Eye Irrit. 2

STOT SE 3

Skin Irrit. 2

Hazard Pictograms



Signal word

Danger

Hazard statements

H271 May cause fire or explosion; strong oxidiser.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H315 Causes skin irritation.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220 Keep/Store away from clothing/.../combustible materials.

P221 Take any precaution to avoid mixing with combustibles...

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).

Xn Harmful R36/37/38
O Oxidizing R22
R9

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

Component Composition/Information

Name: Lithium Perchlorate 3-hydrate

Formula: $\text{LiClO}_4 \cdot 3\text{H}_2\text{O}$ M.= 160,44 CAS [13453-78-6]

EC number (EINECS): 232-237-2

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.

4.3 Contact with the skin:

Wash with plenty of water. Remove contaminated clothing.

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. Induce vomiting. Seek medical assistance.

Fire-fighting means

5.1 Suitable fire-extinguishing means:

Water.

5.2 Fire-fighting means which must NOT be used:

5.3 Special risks:

Incombustible. Encourages fire to break out. Keep away from combustible substances.

5.4 Protective equipment:

Measures to be taken in the event of accidental spillage

6.1 Individual precautions:

6.2 Precautions for care of the environment:

6.3 Methods for collection/cleaning:

Collect up dry and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water.

Handling and storage

7.1 Handling:

No special indications.

7.2 Storage:

Well sealed containers. Keep away from flammable substances, sources of ignition and heat.

Staff exposure/protection controls

8.1 Technical protective measures:

8.2 Exposure limit control:

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. Wash hands and face before breaks and when the job is done.
Use complete protective equipment.

8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

Physical and chemical properties

Appearance: solid

Colour: White

Granulometry:

Odour: Odourless.

pH:

Melting point/freezing point: 95 °C

Initial boiling point and boiling range:

Flash point:

Flammability (solid, gas):

Upper/lower flammability or explosive limits:

Vapour pressure:

Vapour density:

Relative density: 1,84

Solubility: 597 g/l water 25 °C

Partition coefficient: n-octanol/water:

Auto-ignition temperature:

Decomposition temperature: above 430 °C

Viscosity:

Stability and reactivity

10.1 Conditions which should be avoided:

High temperatures.

10.2 Matter which should be avoided:

Flammable substances. (There is a risk of explosion).

10.3 Hazardous decomposition products:

10.4 Complementary information:

Toxicological information

- **Acute toxicity:**

LD50 ipr mus : 1.160 mg/kg

- **Dangerous effects for health:**

The data we have are insufficient for correct toxicological assessment. Based on the physico-chemical properties, the likely dangerous characteristics are: If dust inhaled: Irritations to the respiratory tracts. Upon contact with the skin: irritations If swallowed: Harmful to the health. Through contact with the eyes: irritations Systemic effects: effects on the central nervous system Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

Environmental information

12.1 Mobility:

12.2 Ecotoxicity:

12.2.1 - EC50 test (mg/l):

Fish (Li) 100 mg/l

Classification: Highly toxic

Crustaceans (Daphnia magna) (Li) 16 mg/l

Classification: Extr. toxic

Plants (Li) 0,2 mg/l

Classification: Extr. toxic

12.2.2 - Receptor medium:

Risk for the water environment

Medium

Risk for the land environment

Medium

12.2.3 - Observations:

Acute ecotoxicity in the dumping area.

12.3 Degradability:

12.3.1 - Test:

12.3.2 - Biotic degradation classification:

BOD5/COD

Biodegradability

12.3.3 - Abiotic degradation depending on pH:

12.3.4 - Observations:

Data not available.

12.4 Accumulation:

12.4.1 - Test:

12.4.2 - Bioaccumulation:

Risk

12.4.3 - Observations:

Data not available.

12.5 Other possible effects on the environment:

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

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: PERCHLORATES, INORGANIC, N.O.S.

UN 1481 Class: 5.1 Packaging group: II (E)

By sea (IMDG):

Technical name: PERCHLORATES, INORGANIC, N.O.S.

UN 1481 Class: 5.1 Packaging group: II

By air (ICAI-IATA):

Technical name: Perchlorates, inorganic, n.o.s.

UN 1481 Class: 5.1 Packaging group: II

Packaging instructions: CAO 511 PAX 508

Regulatory information

Other information

Other precautionary statements

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

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

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

P283 Wear fire/ flame resistant/retardant clothing.

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

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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.

P306+P360 IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

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

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.

P370+P378 In case of fire: Use for extinction.

P371+P380+P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

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

P405 Store locked up.

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

R-phrases(s):	R36/37/38 Irritating to eyes, respiratory system and skin. R22 Harmful if swallowed. R9 Explosive when mixed with combustible material.
S-phrases(s):	S27 Take off immediately all contaminated clothing. S24/25 Avoid contact with skin and eyes.

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.

In respect of the previous review, changes have been made to the following sections: 2, 3, 15

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