S a f e t y D a t a S h e e t

According to Regulation (EC) 1907/2006

1445 **Nickel(II) Sulphate 6-hydrate**

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

**1.1 Identification of the substance or preparation**

Name:

Nickel(II) Sulphate 6-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
Polígono Pla de la Bruguera
E-08211 Castellar del Vallès
(Barcelona) Spain
Tel. (+34) 937 489 400
e-mail: product.safety@panreac.com

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) nº 1272/2008.**

Carc. 1A
Repr. 1B
Acute Tox. 4
Acute Tox. 4
Skin Irrit. 2
Resp. Sens 1
Skin Sens. 1
STOT RE 1
Muta. 2
Aquatic Acute 1
Aquatic Chronic 1

**Hazard Pictograms**

**Signal word**

Danger

**Hazard statements**

H350i May cause cancer by inhalation.
H360D May damage the unborn child.
H332 Harmful if inhaled.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H372 Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H341 Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H410 Very toxic to aquatic life with long lasting effects.

**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.

P270 Do no eat, drink or smoke when using this product.

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

| | | |
|---|---|---|
| | | R38 |
| | | R20/22 |
| | | R61 |
| **N** | Dangerous for the environment | R49 |
| **T** | Toxic | R42/43 |
| | | R48/23 |
| | | R68 |
| | | R50/53 |

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

# Component Composition/Information

Name: Nickel(II) Sulphate 6-hydrate

Formula: NiSO4.6H2O M.= 262,86 CAS [10101-97-0]

EC number (EINECS): 232-104-9

EC index number: 028-009-00-5

# 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.

**4.4 Eyes:**

Wash with plenty of water, keeping eyelids open.

**4.5 Swallowing:**

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

# Fire-fighting means

**5.1 Suitable fire-extinguishing means:**
As appropriate to the environment.

**5.2 Fire-fighting means which must NOT be used:**

**5.3 Special risks:**
Incombustible. In the event of fire, toxic fumes may form: Precipitate fumes formed with water.

**5.4 Protective equipment:**

# Measures to be taken in the event of accidental spillage

**6.1 Individual precautions:**
Do not inhale the dust.

**6.2 Precautions for care of the environment:**
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. Clean any remains with plenty of water.

# Handling and storage

**7.1 Handling:**
No special indications.

**7.2 Storage:**
Well sealed containers.In well ventilated premises.Restricted access, only authorized to technicians.

# Staff exposure/protection controls

**8.1 Technical protective measures:**

**8.2 Exposure limit control:**
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 suitable work clothing. Wash hands and face before breaks and when the job is done. Avoid the formation of dust.

**8.7 Environmental exposure controls:**
Fulfill the commitments under local environmental protection legislation.

# Physical and chemical properties

Appearance: solid

Colour: Green

Granulometry:

Odour: Odourless.

pH: 4,3 - 4,7

Melting point/freezing point: 53,3 °C

Initial boiling point and boiling range:

Flash point:

Flammability (solid, gas):

Upper/lower flammability or explosive limits:

Vapour pressure:

Vapour density:

Relative density: 2,07

Solubility: 625 g/l water 20 °C

Partition coefficient: n-octanol/water:

Auto-ignition temperature:

Decomposition temperature: above280 °C

Viscosity:

# Stability and reactivity

**10.1 Conditions which should be avoided:**
High temperatures.

**10.2 Matter which should be avoided:**
Strong acids.

**10.3 Hazardous decomposition products:**
Sulphur oxides.

**10.4 Complementary information:**
Through heating, the product loses the crystallization water.

# Toxicological information

- **Acute toxicity:**

LD L0 oral rat : 275 mg/kg
LD50 oral rat : 275 mg/kg

- **Dangerous effects for health:**

If dust inhaled: Irritations to the respiratory tracts. Upon contact with the skin: irritations Through contact with the eyes: irritations If swallowed: Irritations of the mucosae in the mouth, throat, oesophagus and intestinal tract. Causes gastro-intestinal disorders For nickel compounds generally: Inorganic nickel compounds can have an astringent action on the mucosae. Can cause sensitization allergic reaction Can cause dermatitis Contrasted experiments lead to assume an inverse relation between the hydrosolubility of the nickel compound and its carcinogenic effect:increased hydrosolubility represents a decreased carcinogenic eC Carcinogenic in animal testing. There are no definite conclusions regarding the carcinogenic effect of this substance on humans.

# Environmental information

**12.1 Mobility:**

**12.2 Ecotoxicity:**

12.1.1 - EC50 test (mg/l):

Bacteria (Ps. putida) 0,0025 mg/l

Classification:

Extr. toxic

Algae (Sc. cuadricauda) 1,3 mg/l

Classification:

Extr. toxic

Algae (M. aeruginosa) 0,005 mg/l

Classification:

Extr. toxic

Protozoa (E. sulcatum)

Classification: Extr. toxic

Protozoa (U. parduczi). 0,042 mg/l

Classification:

Extr. toxic

Crustaceans (Daphnia magna)

Classification: Extr. toxic

Fish (Leuciscus Idus) 570 mg/l

Classification:

Highly toxic

Fish (P. promelas)

Classification: Extr. toxic

12.2.2 - Receptor medium:

Risk for the water environment

High

Risk for the land environment High

12.2.3 - Observations:

The ecotoxicity is due to the ion Ni.

**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:

**12.4 Accumulation:**

12.4.1 - Test:

12.4.2 - Bioaccumulation:

Risk

12.4.3 - Observations:

**12.5 Other possible effects on the environment:**
Water-pollutant product.
Do not allow it to enter soils or water channels.
DATA BASED on the components of the preparation.
(Soluble copper compounds)

# 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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# Information concerning transport

Overland (ADR):
Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
UN 3077 Class: 9 CONTAM. MAR PELIG.M.AMB Packaging group: III (E)

By sea (IMDG):
Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
UN 3077 Class: 9 CONTAM. MAR PELIG.M.AMB Packaging group: III

By air (ICAI-IATA):
Technical name: Environmentally hazardous substance, solid, n.o.s
UN 3077 Class: 9 CONTAM. MAR PELIG.M.AMB Packaging group: III

Packaging instructions: CAO 911 PAX 911

# Regulatory information

# Other information

**Other precautionary statements**

P271 Use only outdoors or in a well-ventilated area.
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.
P281 Use personal protective equipment as required.
P285 In case of inadequate ventilation wear respiratory protection.
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.
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362 Take off contaminated clothing and wash before reuse.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
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): | **R38** Irritating to skin.<br>**R20/22** Harmful by inhalation and if swallowed.<br>**R61** May cause harm to the unborn child.<br>**R49** May cause cancer by inhalation.<br>**R42/43** May cause sensitisation by inhalation and skin contact.<br>**R48/23** Toxic: danger of serious damage to health by prolonged exposure through inhalation.<br>**R68** Possible risk of irreversible effects.<br>**R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| S-phrase(s): | **S61** Avoid release to the environment. Refer to special instructions/safety data sheets.<br>**S60** This material and its container must be disposed of as hazardous waste.<br>**S45** In case of accident or if you feel unwell, seek medical advice immediately (show the lable where possible).<br>**S53** Avoid exposure - obtain special instructions before use. |

Review number and date: 3 3.11.10

Date published: 3.11.10

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