according to Regulation (EC) No. 1907/2006



# Nickel Sulfate Hexahydrate - 1 M

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: Nickel Sulfate Hexahydrate - 1 M

Catalog Number: CSS-227

Supplier: Jena Bioscience GmbH

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### 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No. 1272/2008 (EU-GHS/CLP)

Skin Sens 1, H317 Resp. Sens. 1, H334

Carc. 2, H351

Aquatic Chronic 2, H411

According to EC-directives 67/548/EEC or 1999/45/EC

Carc. Cat. 3, R40

R42/43 N, R51-53

Label elements

Pictogram:

Labelling according Regulation (EC) No 1272/2008 [CLP]



Signal word: Danger

Hazard statement(s):

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection.

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

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

physician.

Other hazards none

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component: Nickel Sulfate hexahydrate

Synonyms:

Formula: NiSO<sub>4</sub> \* 6H<sub>2</sub>O

Molecular Weight: 262.85 g/mol

CAS-No.: 10101-97-0

EC-No.: 232-104-9

Index-No.: 028-009-00-5

Classification: Acute Tox. 4, H302 - Skin Sens. 1, H317 - Resp. Sens. 1, H334 - Carc. 2, H351 - Aquatic Acute 1, H400 - Aquatic

Chronic 1, H410

Carc. Cat. 3, R40 - Xn, R22 - R42/43 - N, R50-53

Concentration: 15 % w/v

### 4. FIRST AID MEASURES

### If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration.

#### In case of skin contact

Wash off with soap and plenty of water.

### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

### **6. ACCIDENTAL RELEASE MEASURES**

### Personal precautions

Avoid dust formation.

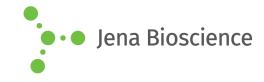
#### **Environmental precautions**

Do not let product enter drains.

#### Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

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### 7. HANDLING AND STORAGE

### Handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

#### Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: store at 4 °C

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment

### **Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### **Hand protection**

For prolonged or repeated contact use protective gloves.

### Eye protection

Safety glasses

## **Hygiene measures**

General industrial hygiene practice.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### **Appearance**

Form: liquid

#### Safety data

рН:

Melting point: no data available
Boiling point: no data available
Flash point: no data available
Ignition temperature: no data available
Lower explosion limit: no data available
Upper explosion limit: no data available
Water solubility: no data available

### 10. STABILITY AND REACTIVITY

## Storage stability



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Stable under recommended storage conditions.

#### Materials to avoid

Strong oxidizing agents.

#### **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Oxides of phosphorus, Lithium oxides.

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

LD50 Oral - rat - male - 361 mg/kg (OECD Test Guideline 401)

### Irritation and corrosion

no data available

### Sensitisation

no data available

### Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### Signs and Symptoms of Exposure

Dermatitis

### **Potential Health Effects**

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.

Target Organs: Liver, Kidney

### 12. ECOLOGICAL INFORMATION

### **Toxicity**

Toxicity to fish LC50 - 1,28 mg/l/96 h (Onchorhynchus mykiss)

Toxicity to daphnia and other EC50 - 1 mg/l/48 h (Daphnia magna (Water flea))

aquatic invertebrates

Toxicity to algae IC50 - 0,75 mg/l/72 h (Selenastrum capricornutum)

## Elimination information (persistence and degradability)

no data available

### **Ecotoxicity effects**



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no data available

## Further information on ecology

no data available

#### 13. DISPOSAL CONSIDERATIONS

#### **Product**

Observe all federal, state, and local environmental regulations.

#### Contaminated packaging

Dispose of as unused product.

### 14. TRANSPORT INFORMATION

### UN number/ Proper shipping name

ADR/RID: UN 3287 Giftiger anorganischer flüssiger Stoff, n.a.g. (Nickelsulfat Hexahydrat)

IMDG: UN 3287 Toxic liquid, inorganic, n.o.s. (Nickel Sulfate Hexahydrate)
IATA: UN 3287 Toxic liquid, inorganic, n.o.s. (Nickel Sulfate Hexahydrate)

## Transport hazard class(es)

 ADR/RID:
 6.1

 IMDG:
 6.1

 IATA:
 6.1

## **Packaging group**

ADR/RID: III IMDG: III IATA: III

## **Environmental hazards**

ADR/RID: ja IMDG: yes IATA: no

### 15. REGULATORY INFORMATION

## Labelling according to EC Directives

The product does not need to be labelled in accordance with EC directives or respective national laws.

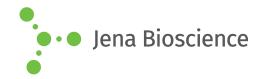
#### 16. OTHER INFORMATION

#### **Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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