

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

**Product identifier:**

**Product name:** NICKEL SULPHATE  
**REACH registered name:** NICKEL SULPHATE HEXAHYDRATE  
**REACH registered number(s):** 01-2119439361-44-0002  
**CAS number:** 10101-97-0  
**EINECS number:** 232-104-9

**Relevant identified uses of the substance or mixture and uses advised against:**

**Use of substance / mixture:** PC14: Metal surface treatment products, including galvanic and electroplating products.

**Company name:** Nexchem Ltd  
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## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture:**

**Classification under CLP:** Muta. 1A: H340; Acute Tox. 3: H331; Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Carc. 1B: H350; Repr. 1B: H360D; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 1: H372

**Most important adverse effects:** Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects. May cause cancer. May damage the unborn child. Causes damage to organ through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**Label elements:**

**Hazard statements:** H302: Harmful if swallowed.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H331: Toxic if inhaled.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H340: May cause genetic defects.  
H350: May cause cancer.  
H360D: May damage the unborn child.  
H372: Causes damage to organs through prolonged or repeated exposure.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.

**Signal words:**

Danger

**Hazard pictograms:**

GHS06: Skull and crossbones  
GHS08: Health hazard  
GHS09: Environmental



**Precautionary statements:**

P202: Do not handle until all safety precautions have been read and understood.  
P261: Avoid breathing dust.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing.  
P301+312: IF SWALLOWED: Call a POISON CENTER/doctor/paramedic if you feel unwell.  
P302+352: IF ON SKIN: Wash with plenty of water/soapy water.  
P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P311: Call a POISON CENTER/doctor/paramedic.  
P308+313: IF exposed or concerned: Get medical advice/attention.  
P333+313: If skin irritation or rash occurs: Get medical advice/attention.  
P362: Take off contaminated clothing.  
P363: Wash contaminated clothing before reuse.  
P391: Collect spillage.  
P405: Store locked up.  
P501: Dispose of contents/container to hazardous waste.

**Other hazards:**

No data available.

**PBT:**

This product is not identified as a PBT/vPvB substance.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substances:**

**Chemical identity:** NICKEL SULPHATE  
**CAS number:** 10101-97-0  
**EINECS number:** 232-104-9  
**REACH registered number(s):** 01-2119439361-44-0002

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### 4. FIRST AID MEASURES

#### Description of first aid measures:

- Skin contact:** For even minor contact, immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Wash contaminated clothing before re-use. If skin irritation occurs: Get medical advice/attention.
- Eye contact:** Immediately flush with plenty of water for up to 15 minutes. Consult a doctor.
- Ingestion:** Wash out mouth with water. Get medical attention immediately.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Get medical attention.

#### Most important symptoms and effects, both acute and delayed:

- Skin contact:** There may be irritation and redness at the site of contact. May cause an allergic reaction.
- Eye contact:** There may be irritation and redness. The eyes may water profusely.
- Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.
- Inhalation:** Exposure may cause coughing or wheezing. This substance is HARMFUL by inhalation.
- Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

#### Indication of any immediate medical attention and special treatment needed:

- Immediate / special treatment:** Immediate medical attention is required. Show this SDS to the doctor in attendance.

### 5. FIRE-FIGHTING MEASURES

- Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used.

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

- Exposure hazards:** In combustion emits toxic fumes of sulphur oxides.

- Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

### 6. ACCIDENTAL RELEASE MEASURES

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

- Personal precautions:** Do not attempt to take action without suitable protective clothing - see section 8 of SDS.  
Do not create dust. Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. Mark out the contaminated area with signs and prevent access to unauthorised personnel. If outside keep bystanders upwind and away from danger point.

- Environmental precautions:** Do not discharge into drains or rivers.

#### Methods and material for containment and cleaning up:

- Clean-up procedures:** Transfer to a closable, labelled salvage container for disposal by an appropriate method.
- Reference to other sections:** Refer to section 8 of SDS.

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## 7. HANDLING AND STORAGE

### Precautions for safe handling:

**Handling requirements:** Avoid direct contact with the substance. Avoid the formation or spread of dust in the air.  
Ensure there is sufficient ventilation of the area. Do not handle in a confined space.

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

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Must only be kept in original packaging.

**Specific end use(s):** Refer to Section 1

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters:

**Workplace exposure limits:** Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.1 mg/m <sup>3</sup>	-	-	-

**Hazardous ingredients:** NICKEL SULPHATE

**Workplace exposure limits:** Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.1 mg/m <sup>3</sup>	-	-	-

### DNEL/PNEC Values:

**DNEL / PNEC:** No data available.

### Exposure controls:

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency. Respiratory protective device with particle filter.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

**Environmental:** Ensure all engineering measures mentioned in section 7 of SDS are in place. Prevent from entering in public sewers or the immediate environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties:

**State:** Crystals

**Colour:** Green

**Odour:** Odourless

**Evaporation rate:** No data available.

**Oxidising:** Non-oxidising (by EC criteria)

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<b>Solubility in water:</b>	625 g/l@ 0c 3407g/l@ 100 c		
<b>Viscosity:</b>	No data available.		
<b>Boiling point/range°C:</b>	No data available.	<b>Melting point/range°C:</b>	53-280
<b>Flammability limits %: lower:</b>	No data available.	<b>upper:</b>	No data available.
<b>Flash point°C:</b>	No data available.	<b>Part.coeff. n-octanol/water:</b>	No data available.
<b>Autoflammability°C:</b>	No data available.	<b>Vapour pressure:</b>	No data available.
<b>Relative density:</b>	2.07 g/cm3	<b>pH:</b>	6.1 (200g/l)
<b>VOC g/l:</b>	No data available.		
<b>Other information:</b>	Not applicable.		

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Stable under recommended transport or storage conditions.
<b>Chemical stability:</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	
<b>Hazardous reactions:</b>	Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.
<b>Conditions to avoid:</b>	None known.
<b>Incompatible materials:</b>	
<b>Materials to avoid:</b>	No known hazardous reaction with common products
<b>Hazardous decomposition products:</b>	
<b>Haz. decomp. products:</b>	In combustion emits toxic fumes of sulphur oxides.

## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
VAPOURS	RAT	4H LC50	2.48	mg/l
ORAL	RAT	LD50	361.9	mg/kg

#### Hazardous ingredients:

		NICKEL SULPHATE		
ORAL	RAT	LD50	361.9	mg/kg
VAPOURS	RAT	4H LC50	2.48	mg/l

#### Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	ING	Hazardous: calculated
Acute toxicity (ac. tox. 3)	INH	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Respiratory/skin sensitisation I	NH DRM	Hazardous: calculated

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Germ cell mutagenicity	-	Hazardous: calculated
Carcinogenicity	-	Hazardous: calculated
Reproductive toxicity	-	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

#### Symptoms / routes of exposure:

<b>Skin contact:</b>	There may be irritation and redness at the site of contact. May cause an allergic reaction.
<b>Eye contact:</b>	There may be irritation and redness. The eyes may water profusely.
<b>Ingestion:</b>	There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.
<b>Inhalation:</b>	Exposure may cause coughing or wheezing. This substance is HARMFUL by inhalation.
<b>Delayed / immediate effects:</b>	Immediate effects can be expected after short-term exposure.
<b>Other information:</b>	Not applicable.

## 12. ECOLOGICAL INFORMATION

#### Toxicity:

##### Ecotoxicity values:

Species	Test	Value	Units
FISH	96H LC50	0.23-320	mg/l

##### Hazardous ingredients:

FISH	96H LC50	0.23-320	mg/l
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**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

#### Mobility in soil

**Mobility:** No data available.

#### Results of PBT and vPvB assessment:

##### Persistence (P-):

**Persistence result:** not P

##### Bioaccumulation (B-):

**Bioconcentration factor (BCF):** <500

**Bioaccumulation result:** not B-

##### Toxicity (T-):

**Toxicity result:** not T-

**PBT identification:** This product is not identified as a PBT/vPvB substance.

**Other adverse effects:** Very toxic to aquatic life. Avoid undiluted product to come into sewer or superficial water.  
Danger of pollution of drinking water when product enters the soil.

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### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods:**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Dispose of as unused product.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

### 14. TRANSPORT INFORMATION

**UN number:** UN3288

**UN proper shipping name:**

**Shipping name:** TOXIC SOLID, INORGANIC, N.O.S. (Nickel Sulphate)

**Transport hazard class(es):**

**Transport class:** 6.1

**Packing group:** III

**Environmentally hazardous:** Yes

**Marine pollutant:** Yes

**Special precautions for user:**

**Special precautions:** No special precautions.

**Tunnel code:** E

**Transport category:** 2

**IMDG seg. group:** A

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:**

**Transport in bulk:** Not applicable

### 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Specific regulations:** Not applicable.

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

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## 16. OTHER INFORMATION

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:**

H302: Harmful if swallowed.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H331: Toxic if inhaled.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H340: May cause genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
H350: May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
H360D: May damage the unborn child.  
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>.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.

**Legal disclaimer:** The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.