
Safety Data Sheet

Product Name	Nickel (II) sulfate hexahydrate
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:**Product Description:** Nickel (II) sulfate hexahydrate**Synonyms:** Single Nickel Salt; Nickeous Sulfate Crystal; Sulfuric Acid Nickel (II) Salt.**CAS-No:** 10101-97-0**EC-No.:** 232-104-9**Molecular Formula:** NiSO₄ · 6H₂O**REACH Registration No:** A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Laboratory chemicals, Manufacture of substances**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad-382110, Gujarat, India.
Web: www.finarchemicals.com
- **E-Mail Address** safety.finar@aceto.com; info.finar@aceto.com

1.4. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717

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SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture:****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Skin irritation (Category 2), H315

Respiratory sensitization (Category 1), H334

Skin sensitization (Category 1), H317

Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 1A), H350

Reproductive toxicity (Category 1B), H360D

Specific target organ toxicity - repeated exposure, Inhalation (Category 1), Respiratory Tract, H372

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label Elements:**Labelling according to Regulation (EC) No 1272/2008****Pictogram****Signal word: Danger****Hazard statement(s)**

H302 + H332 Harmful if swallowed or if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H360D May damage the unborn child.

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H372 Causes damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.
 H410 Very 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/ face protection/ hearing protection.
 P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/ doctor if you feel unwell.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard Statements None

Reduced labelling (≤125 ml)

Pictogram



Signal word: Danger

Hazard statement(s)

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H317 May cause an allergic skin reaction.
 H341 Suspected of causing genetic defects.
 H350 May cause cancer.
 H372 Causes damage to organs through prolonged or repeated exposure if inhaled.
 H360D May damage the unborn child.

Precautionary statement(s)

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/ doctor if you feel unwell.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard Statements None

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2.3. Other Hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Nickel (II) sulfate hexahydrate

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Nickel (II) sulfate hexahydrate	10101-97-0	232-104-9	>95

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice**

First aiders need to protect themselves. Show this safety data sheet to the doctor in attendance.

- **If inhaled**

After inhalation: fresh air. Call in physician.

- **If Contact with skin**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

- **In case of eye contact**

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

- **If swallowed**

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed:

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

4.3. Indication of any immediate medical attention and special treatment needed:

No data available

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SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media:**

Suitable Extinguishing Media- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media- For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture:

Sulfur oxides

Nickel/nickel oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3. Advice for firefighters:

Stay in danger area only with self-contained breathing apparatus.

Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further Information:

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures:**

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances.

Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2. Environmental precautions:

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4. Reference to other sections:

For disposal see Sections 13.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities:

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Ingredients with workplace control parameters

8.2. Exposure Controls:

Personal Protective Equipment:

Eye & Face Protection-

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Body Protection-

Protective clothing

Respiratory Protection-

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

Environmental Exposure Controls-

Do not let product enter drains.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties:**

- **Appearance:** Blue Green
- **Physical State:** Solid Crystalline
- **Odor:** Odorless
- **Odor Threshold:** No data available
- **pH:** 4.0 -6.0 5% aq. sol
- **Melting Point:** 53°C
- **Critical Temperature:** No data available
- **Vapor Pressure:** No data available
- **Relative Vapor Density:** No data available
- **Density:** 2.07 g/cm³
- **Auto- Ignition Temperature:** No data available
- **Decomposition Temperature:** > 280°C
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Viscosity, dynamic:** No data available
- **Evaporation Rate:** No data available
- **Partition Coefficient: n-Octanol/Water:** No data available
- **Lower Explosion Limit:** No data available
- **Upper Explosion Limit:** No data available
- **Boiling Point/Range:** No data available
- **Flash Point:** No data available
- **Specific Gravity:** 2.07 g/cm³
- **Water Solubility:** Soluble in water

9.2. Other information:

- **Molecular Formula:** NiSO₄ · 6H₂O
- **Molecular Weight:** 262.85 g/mol

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SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity:**

No data available

10.2. Chemical stability:

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

10.3. Possibility of hazardous reactions:

increased reactivity with: Strong acids

10.4. Conditions to avoid:

Incompatible products. Excess heat. Avoid dust formation.

10.5. Incompatible materials:

Strong oxidizing agents

10.6. Hazardous decomposition products:

Sulfur oxides, Nickel oxides

In the event of fire: See section 5.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects:****Acute toxicity**

LD50 Oral - Rat – 361.9 mg/kg

(OECD Test Guideline 425)

Remarks: anhydrous substance

Acute toxicity estimate Inhalation - 4 h - 1,6 mg/l

(Expert judgment)

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Sensitisation

Maximization Test - Guinea pig

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May cause allergic skin reaction.

Germ cell mutagenicity

In vitro tests showed mutagenic effects Suspected of causing genetic defects.

Test Type: Mutagenicity (mammal cell test):

Result: positive

Remarks: (National Toxicology Program)

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Remarks: (National Toxicology Program)

Carcinogenicity

No data available

Reproductive toxicity

Presumed human reproductive toxicant May damage the unborn child.

Teratogenicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure. - Respiratory Tract

Aspiration hazard

No data available

11.2 Further Information

RTECS: QR9600000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

No data available

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12.2 Persistence and degradability:

No data available

12.3 Bioaccumulate potential:

No data available

12.4 Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects:

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	UN 3077		
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nickel sulphate hexahydrate)		
14.3 Class	9		
14.4 Packing group	III		
14.5 Environmentally hazardous	--		
14.6 Special precautions for user	Yes	Yes	Yes
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code			
Not Relevant			

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SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

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

Authorisations and/or restrictions on use

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Nickel sulphate hexahydrate

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ENVIRONMENTAL HAZARDS

15.2 Chemical safety assessment:

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

H302 Harmful if swallowed.

H302 + H332 Harmful if swallowed or if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

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

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H360D May damage the unborn child.

H372 Causes damage to organs (/*_ORG_REP_INHA*/) through prolonged or repeated exposure if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

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H410 Very toxic to aquatic life with long lasting effects.

Training advice

Provide adequate information, instruction and training for operators.

References: Not available

Created: 22/02/2022

Disclaimer:

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