

# Safety Data Sheet

## Nickel (II) Sulfate, 6-Hydrate

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1

### Product Description

**Product Name:** Nickel (II) Sulfate, 6-Hydrate  
**Recommended Use:** Science education applications  
**Synonyms:** Nickel(II) sulfate hexahydrate (1:1:6); Sulfuric acid, nickel (2+) salt, hexahydrate.  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2

### Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



Harmful if swallowed or if inhaled. Causes skin irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

#### GHS Classification:

Respiratory Sensitisation Category 1, Skin Sensitisation Category 1, Carcinogenicity Category 1A, Reproductive Toxicity Category 1B, Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 1, Hazardous to the aquatic environment - Acute Category 1, Hazardous to the aquatic environment - Chronic Category 1, Skin Corrosion/Irritation Category 2, Germ Cell Mutagenicity Category 2, Acute Toxicity - Inhalation Dust / Mist Category 4, Acute Toxicity - Oral Category 4

**Other Safety Precautions:** IF exposed or concerned: Get medical advice/attention.

**Acute Toxicity Dermal Contains** 100 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Inhalation Gas Contains** 100 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Inhalation Vapor Contains** 100 % of the mixture consists of ingredient(s) of unknown toxicity

### Section 3

### Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Nickel (II) Sulfate, 6-Hydrate	10101-97-0	100

### Section 4

### First Aid Measures

#### Emergency and First Aid Procedures

**Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
**Eyes:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.  
**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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<b>Extinguishing Media:</b>	Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
<b>Fire Fighting Methods and Protection:</b>	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
<b>Fire and/or Explosion Hazards:</b>	Fire or excessive heat may produce hazardous decomposition products.
<b>Hazardous Combustion Products:</b>	Sulfur Oxides, Metal Oxides,

## Section 6 Spill or Leak Procedures

<b>Steps to Take in Case Material Is Released or Spilled:</b>	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Avoid contact with material, avoid breathing dusts or fumes, use only in a well ventilated area. Avoid the generation of dusts during clean-up. Ventilate the contaminated area. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. Isolate area. Keep unnecessary personnel away. Ventilate the area by opening door and/or turning on fans and blowers. Vacuum or sweep up material and place in a disposal container After removal, flush contaminated area thoroughly with water. Avoid runoff into storm sewers and ditches that lead to waterways. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Contain the discharged material. Collect spillage.
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## Section 7 Handling and Storage

<b>Handling:</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection. Do not breathe dust. Avoid contact with skin and eyes.
<b>Storage:</b>	Store locked up. Keep container tightly closed in a cool, well-ventilated place.
<b>Storage Code:</b>	Blue - Toxic. Store separately in a secured area.

## Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Nickel (II) Sulfate, 6-Hydrate	0.1 mg/m <sup>3</sup> TWA (inhalable fraction, as Ni)	N/A	1 mg/m <sup>3</sup> TWA (as Ni)	N/A

<b>Control Parameters</b>	
<b>Engineering Measures:</b>	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.
<b>Personal Protective Equipment (PPE):</b>	Lab coat, apron, eye wash, safety shower.
<b>Respiratory Protection:</b>	No respiratory protection required under normal conditions of use. Respiratory protection may be required in addition to ventilation depending upon conditions of use. NIOSH approved air purifying respirator with dust/mist filter.
<b>Respirator Type(s):</b>	
<b>Eye Protection:</b>	Wear chemical splash goggles when handling this product. Have an eye wash station available.
<b>Skin Protection:</b>	Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
<b>Gloves:</b>	Nitrile

## Section 9 Physical Data

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**Formula:** NiSO<sub>4</sub> • 6H<sub>2</sub>O  
**Molecular Weight:** 262.87 g/mol  
**Appearance:** Blue Crystalline Solid  
**Odor:** No data available  
**Odor Threshold:** No data available  
**pH:** No data available  
**Melting Point:** No data available 100 C  
**Boiling Point:** No data available  
**Flash Point:** No data available  
**Flammable Limits in Air:** N/A

**Vapor Pressure:** N/A  
**Evaporation Rate (BuAc=1):** N/A  
**Vapor Density (Air=1):** N/A  
**Specific Gravity:** 2.03  
**Solubility in Water:** Soluble  
**Log Pow (calculated):** No data available  
**Autoignition Temperature:** No data available  
**Decomposition Temperature:** No data available  
**Viscosity:** No data available  
**Percent Volatile by Volume:** N/A

## Section 10

## Reactivity Data

**Reactivity:** No data available  
**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** None known.  
**Incompatible Materials:** Strong oxidizing agents  
**Hazardous Decomposition Products:** Metal Oxides, , Sulfur Oxides  
**Hazardous Polymerization:** Will not occur

## Section 11

## Toxicity Data

**Routes of Entry:** Inhalation, ingestion, eye or skin contact.  
**Symptoms (Acute):** Respiratory disorders,  
**Delayed Effects:** No data available

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Nickel (II) Sulfate, 6-Hydrate	10101-97-0	Oral LD50 Rat 264 mg/kg	Not determined	Not determined

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Nickel (II) Sulfate, 6-Hydrate	10101-97-0	Listed	Listed	Listed

### Chronic Effects:

**Mutagenicity:** Evidence of a mutagenic effect.  
**Teratogenicity:** Evidence of a teratogenic effect (birth defect).  
**Sensitization:** Evidence of a sensitization effect.  
**Reproductive:** Evidence of negative reproductive effects.  
**Target Organ Effects:**  
**Acute:** See Section 2  
**Chronic:** Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.

## Section 12

## Ecological Data

**Overview:** Severe ecological hazard. This product may be toxic to plants and/or wildlife. Keep out of waterways.  
**Mobility:** No data  
**Persistence:** No data  
**Bioaccumulation:** No data  
**Degradability:** No data  
**Other Adverse Effects:** No data

Chemical Name	CAS Number	Eco Toxicity
N/A	10101-97-0	

## Section 13

## Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.  
**Waste Disposal Code(s):** Not Determined

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## Section 14

## Transport Information

**Ground - DOT Proper Shipping Name:**

UN number: 3077 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Nickel sulphate hexahydrate) Reportable Quantity (RQ): 100 lbs Marine Pollutant:

**Air - IATA Proper Shipping Name:**

UN number: 3077 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Nickel sulphate hexahydrate)

## Section 15

## Regulatory Information

**TSCA Status:**

A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances. Product is for research and development use only.

**Chemical Name****CAS Number****§ 313 Name****§ 304 RQ****CERCLA RQ****§ 302 TPQ****CAA 112(2) TQ**

No data available

10101-97-0

No

No

No

No

No

**California Prop 65:**

WARNING: This product contains a chemical known to the state of California to cause cancer.

## Section 16

## Additional Information

**Revised: 09/03/2014****Replaces: 08/27/2014****Printed: 04-21-2015**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

**Glossary**

ACGIH

American Conference of Governmental Industrial Hygienists

CAS

Chemical Abstract Service Number

CERCLA

Comprehensive Environmental Response, Compensation, and Liability Act

DOT

U.S. Department of Transportation

IARC

International Agency for Research on Cancer

N/A

Not Available

NTP

National Toxicology Program

OSHA

Occupational Safety and Health Administration

PEL

Permissible Exposure Limit

ppm

Parts per million

RCRA

Resource Conservation and Recovery Act

SARA

Superfund Amendments and Reauthorization Act

TLV

Threshold Limit Value

TSCA

Toxic Substances Control Act

IDLH

Immediately dangerous to life and health