

# NICKEL SULPHATE HEXAHYDRATE EXTRA PURE MSDS



**CAS No: 10101-97-0 MSDS**

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
:  
CAS No : 10101-97-0  
Product code : 04889

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Labogens Fine Chem Industries  
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,  
Ludhiana Pb. (141007)  
+91 9316777775, +91 7707855700  
[sales@labogens.com](mailto:sales@labogens.com) - [www.Labogens.com](http://www.Labogens.com)

#### 1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302  
Acute toxicity (inhal.), Category 4 H332  
Skin corrosion/irritation, Category 2 H315  
Sensitisation — Respiratory, category 1 H334  
Sensitisation — Skin, category 1 H317  
Germ cell mutagenicity, Category 2 H341  
Carcinogenicity (inhalation) Category 1A H350i  
Reproductive toxicity, Category 1A H360D  
Specific target organ toxicity — Repeated exposure, Category 1 H372  
Hazardous to the aquatic H410

# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

environment — Chronic  
Hazard, Category 1

Full text of classification categories and H statements : see section 16

### Classification according to Directive 67/548/EEC or 1999/45/EC

Carc.Cat.1; R49

Muta.Cat.3; R68

Repr.Cat.1; R61

T; R48/23

Xn; R20/22

R42

Xi; R38

R43

N; R50/53

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS08

GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

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  
H350i - May cause cancer by inhalation  
H360D - May damage the unborn child  
H372 - Causes damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P201 - Obtain special instructions before use  
P273 - Avoid release to the environment  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P284 - [In case of inadequate ventilation] wear respiratory protection  
P308+P313 - IF exposed or concerned: Get medical advice/attention  
P501 - Dispose of contents/container to ...

## 2.3. Other hazards

No additional information available

# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Name : NICKEL SULPHATE HEXAHYDRATE Extra Pure  
CAS No : 10101-97-0

Full text of R- and H-phrases: see section 16

#### 3.2. Mixture

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see ... on this label). If skin irritation or rash occurs: Gently wash with plenty of soap and water.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/injuries : May cause damage to organs. Causes damage to organs through prolonged or repeated exposure. May cause genetic defects.

Symptoms/injuries after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. Harmful if inhaled. May cause cancer by inhalation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

Chronic symptoms : May damage the unborn child.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).

Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

### 6.1.2. For emergency responders

Protective equipment : Avoid breathing dust/fume/gas/mist/vapours/spray.  
Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clear up rapidly by scoop or vacuum.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid breathing dust/fume/gas/mist/vapours/spray. Do not breathe dust/fume/gas/mist/vapours/spray.  
Hygiene measures : Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container tightly closed. Store in a dry place.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Personal protective equipment : Wash ... thoroughly after handling.  
Hand protection : protective gloves  
Eye protection : Chemical goggles or safety glasses  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : Wear respiratory protection  
Other information : Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Colour : Emerald green crystalline.  
Odour : odourless.  
Odour threshold : No data available

# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

|                                            |                              |
|--------------------------------------------|------------------------------|
| pH                                         | : 4.5                        |
| Relative evaporation rate (butylacetate=1) | : No data available          |
| Melting point                              | : 1000 °C                    |
| Freezing point                             | : No data available          |
| Boiling point                              | : No data available          |
| Flash point                                | : No data available          |
| Auto-ignition temperature                  | : No data available          |
| Decomposition temperature                  | : No data available          |
| Flammability (solid, gas)                  | : No data available          |
| Vapour pressure                            | : No data available          |
| Relative vapour density at 20 °C           | : No data available          |
| Relative density                           | : No data available          |
| Density                                    | : 2.03 g/cm <sup>3</sup>     |
| Solubility                                 | : Water: 75.6 g/100 cc water |
| Log Pow                                    | : No data available          |
| Viscosity, kinematic                       | : No data available          |
| Viscosity, dynamic                         | : No data available          |
| Explosive properties                       | : No data available          |
| Oxidising properties                       | : No data available          |
| Explosive limits                           | : No data available          |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

|                                                     |                                                                                                                   |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Acute toxicity                                      | : Oral: Harmful if swallowed. Inhalation: Harmful if inhaled.                                                     |
| Skin corrosion/irritation                           | : Causes skin irritation.<br>pH: 4.5                                                                              |
| Serious eye damage/irritation                       | : Not classified<br>pH: 4.5                                                                                       |
| Respiratory or skin sensitisation                   | : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. |
| Germ cell mutagenicity                              | : Suspected of causing genetic defects.                                                                           |
| Carcinogenicity                                     | : May cause cancer by inhalation.                                                                                 |
| Reproductive toxicity                               | : May damage the unborn child.                                                                                    |
| Specific target organ toxicity (single exposure)    | : Not classified                                                                                                  |
| Specific target organ toxicity (repeated exposure)  | : Causes damage to organs through prolonged or repeated exposure.                                                 |
| Aspiration hazard                                   | : Not classified                                                                                                  |
| Potential adverse human health effects and symptoms | : Harmful if swallowed.                                                                                           |

### SECTION 12: Ecological information

#### 12.1. Toxicity

|                 |                                                         |
|-----------------|---------------------------------------------------------|
| Ecology - water | : Very toxic to aquatic life with long lasting effects. |
|-----------------|---------------------------------------------------------|

#### 12.2. Persistence and degradability

##### NICKEL SULPHATE HEXAHYDRATE Extra Pure (10101-97-0)

|                               |                                                         |
|-------------------------------|---------------------------------------------------------|
| Persistence and degradability | May cause long-term adverse effects in the environment. |
|-------------------------------|---------------------------------------------------------|

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : 3288  
UN-No. (IMDG) : 3288  
UN-No.(IATA) : 3288  
UN-No.(ADN) : 3288  
UN-No. (RID) : 3288

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : TOXIC SOLID, INORGANIC, N.O.S.  
Proper Shipping Name (IMDG) : TOXIC SOLID, INORGANIC, N.O.S.  
Proper Shipping Name (IATA) : TOXIC SOLID, INORGANIC, N.O.S.  
Proper Shipping Name (ADN) : TOXIC SOLID, INORGANIC, N.O.S.  
Proper Shipping Name (RID) : TOXIC SOLID, INORGANIC, N.O.S.  
Transport document description (ADR) : UN 3288 TOXIC SOLID, INORGANIC, N.O.S., 6.1, III, (E), ENVIRONMENTALLY HAZARDOUS  
Transport document description (IMDG) : UN 3288 TOXIC SOLID, INORGANIC, N.O.S., 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS  
Transport document description (IATA) : UN 3288 TOXIC SOLID, INORGANIC, N.O.S., 6.1, III, ENVIRONMENTALLY HAZARDOUS  
Transport document description (ADN) : UN 3288 TOXIC SOLID, INORGANIC, N.O.S., 6.1, III, ENVIRONMENTALLY HAZARDOUS  
Transport document description (RID) : UN 3288 TOXIC SOLID, INORGANIC, N.O.S., 6.1, III, ENVIRONMENTALLY HAZARDOUS

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 6.1  
Danger labels (ADR) : 6.1



#### IMDG

Transport hazard class(es) (IMDG) : 6.1  
Danger labels (IMDG) : 6.1



# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

### IATA

Transport hazard class(es) (IATA) : 6.1

Hazard labels (IATA) : 6.1



### ADN

Transport hazard class(es) (ADN) : 6.1

Danger labels (ADN) : 6.1



### RID

Transport hazard class(es) (RID) : 6.1

Danger labels (RID) : 6.1



### 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

### 14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : T5

Special provision (ADR) : 274

Limited quantities (ADR) : 5kg

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

Special packing provisions (ADR) : B3

Mixed packing provisions (ADR) : MP10

Portable tank and bulk container instructions (ADR) : T1



# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

|                                                                         |                 |
|-------------------------------------------------------------------------|-----------------|
| Portable tank and bulk container special provisions (ADR)               | : TP33          |
| Tank code (ADR)                                                         | : SGAH, L4BH    |
| Tank special provisions (ADR)                                           | : TU15, TE19    |
| Vehicle for tank carriage                                               | : AT            |
| Transport category (ADR)                                                | : 2             |
| Special provisions for carriage - Bulk (ADR)                            | : VC1, VC2, AP7 |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV13, CV28    |
| Special provisions for carriage - Operation (ADR)                       | : S9            |
| Hazard identification number (Kemler No.)                               | : 60            |
| Orange plates                                                           | :               |



|                               |      |
|-------------------------------|------|
| Tunnel restriction code (ADR) | : E  |
| EAC code                      | : 2X |

### - Transport by sea

|                                 |              |
|---------------------------------|--------------|
| Special provision (IMDG)        | : 223, 274   |
| Limited quantities (IMDG)       | : 5 kg       |
| Excepted quantities (IMDG)      | : E1         |
| Packing instructions (IMDG)     | : P002, LP02 |
| IBC packing instructions (IMDG) | : IBC08      |
| IBC special provisions (IMDG)   | : B3         |
| Tank instructions (IMDG)        | : T1         |
| Tank special provisions (IMDG)  | : TP33       |
| EmS-No. (Fire)                  | : F-A        |
| EmS-No. (Spillage)              | : S-A        |
| Stowage category (IMDG)         | : A          |
| MFAG-No                         | : 151        |

### - Air transport

|                                              |          |
|----------------------------------------------|----------|
| PCA Excepted quantities (IATA)               | : E1     |
| PCA Limited quantities (IATA)                | : Y645   |
| PCA limited quantity max net quantity (IATA) | : 10kg   |
| PCA packing instructions (IATA)              | : 670    |
| PCA max net quantity (IATA)                  | : 100kg  |
| CAO packing instructions (IATA)              | : 677    |
| CAO max net quantity (IATA)                  | : 200kg  |
| Special provision (IATA)                     | : A3, A5 |
| ERG code (IATA)                              | : 6L     |

### - Inland waterway transport

|                                   |            |
|-----------------------------------|------------|
| Classification code (ADN)         | : T5       |
| Special provisions (ADN)          | : 274, 802 |
| Limited quantities (ADN)          | : 5 kg     |
| Excepted quantities (ADN)         | : E1       |
| Equipment required (ADN)          | : PP, EP   |
| Number of blue cones/lights (ADN) | : 0        |

### - Rail transport

|                           |      |
|---------------------------|------|
| Classification code (RID) | : T5 |
|---------------------------|------|

# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

|                                                               |                           |
|---------------------------------------------------------------|---------------------------|
| Special provision (RID)                                       | : 274                     |
| Limited quantities (RID)                                      | : 5kg                     |
| Excepted quantities (RID)                                     | : E1                      |
| Packing instructions (RID)                                    | : P002, IBC08, LP02, R001 |
| Special packing provisions (RID)                              | : B3                      |
| Mixed packing provisions (RID)                                | : MP10                    |
| Portable tank and bulk container instructions (RID)           | : T1                      |
| Portable tank and bulk container special provisions (RID)     | : TP33                    |
| Tank codes for RID tanks (RID)                                | : SGAH, L4BH              |
| Special provisions for RID tanks (RID)                        | : TU15                    |
| Transport category (RID)                                      | : 2                       |
| Special provisions for carriage – Bulk (RID)                  | : VC1, VC2, AP7           |
| Special provisions for carriage – Loading and unloading (RID) | : CW13, CW28, CW31        |
| Colis express (express parcels) (RID)                         | : CE11                    |
| Hazard identification number (RID)                            | : 60                      |

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

NICKEL SULPHATE HEXAHYDRATE Extra Pure is not on the REACH Candidate List

NICKEL SULPHATE HEXAHYDRATE Extra Pure is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product  
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

# NICKEL SULPHATE HEXAHYDRATE Extra Pure

## Safety Data Sheet

### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

|                           |                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------|
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4                                                             |
| Acute Tox. 4 (Oral)       | Acute toxicity (oral), Category 4                                                               |
| Aquatic Chronic 1         | Hazardous to the aquatic environment — Chronic Hazard, Category 1                               |
| Carc. 1A                  | Carcinogenicity (inhalation) Category 1A                                                        |
| Muta. 2                   | Germ cell mutagenicity, Category 2                                                              |
| Repr. 1A                  | Reproductive toxicity, Category 1A                                                              |
| Resp. Sens. 1             | Sensitisation — Respiratory, category 1                                                         |
| Skin Irrit. 2             | Skin corrosion/irritation, Category 2                                                           |
| Skin Sens. 1              | Sensitisation — Skin, category 1                                                                |
| STOT RE 1                 | Specific target organ toxicity — Repeated exposure, Category 1                                  |
| H302                      | Harmful if swallowed                                                                            |
| 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                                                            |
| H350i                     | May cause cancer by inhalation                                                                  |
| H360D                     | May damage the unborn child                                                                     |
| H372                      | Causes damage to organs through prolonged or repeated exposure                                  |
| H410                      | Very toxic to aquatic life with long lasting effects                                            |
| R20/22                    | Harmful by inhalation and if swallowed                                                          |
| R38                       | Irritating to skin                                                                              |
| R42                       | May cause sensitization by inhalation                                                           |
| R43                       | May cause sensitisation by skin contact                                                         |
| R48/23                    | Toxic: danger of serious damage to health by prolonged exposure through inhalation              |
| R49                       | May cause cancer by inhalation                                                                  |
| R50/53                    | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| R61                       | May cause harm to the unborn child                                                              |
| R68                       | Possible risk of irreversible effects                                                           |
| N                         | Dangerous for the environment                                                                   |
| T                         | Toxic                                                                                           |
| Xi                        | Irritant                                                                                        |
| Xn                        | Harmful                                                                                         |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*