

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.15.2018

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## Nickel Chloride Hexahydrate

### SECTION 1: Identification

#### Product identifier

**Product name:** Nickel Chloride Hexahydrate

**Product code:** S25442

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Not determined or not applicable.

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

**Manufacturer:**

**Supplier:**

AquaPhoenix Scientific

860 Gitts Run Road

Hanover

PA 17331

(717) 632-1291

Fisher Science Education

6771 Silver Crest Road

Nazareth

PA 18064

800 955-1177

#### Emergency telephone number:

**United States**

Emergency Telephone No.: 800-255-3924

### SECTION 2: Hazard(s) identification

#### GHS classification:

Acute toxicity (oral), category 3

Acute toxicity (inhalation), category 3

Skin irritation, category 2

Skin sensitization, category 1

Respiratory sensitization, category 1

Germ cell mutagenicity, category 2

Carcinogenicity, category 1A

Reproductive toxicity, category 1B

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H301 Toxic if swallowed

H331 Toxic if inhaled

H315 Causes skin irritation

H317 May cause an allergic skin reaction

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

H341 Suspected of causing genetic defects

H350 May cause cancer

H360 May damage fertility or the unborn child

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

### Precautionary statements:

P264 Wash skin thoroughly after handling

P270 Do not eat, drink or smoke when using this product

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P271 Use only outdoors or in a well-ventilated area

P280 Wear protective gloves/protective clothing/eye protection/face protection

P272 Contaminated work clothing should not be allowed out of the workplace

P285 In case of inadequate ventilation wear respiratory protection

P201 Obtain special instructions before use

P202 Do not handle until all safety precautions have been read and understood

P273 Avoid release to the environment

P321 Specific treatment (see supplemental first aid instructions on this label).

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P304+P340+P311 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician

P362 Take off contaminated clothing and wash before reuse

P302+P352 If on skin: Wash with soap and water

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention

P308+P313 If exposed or concerned: Get medical advice/attention

P391 Collect spillage

P405 Store locked up

P403+P233 Store in a well ventilated place. Keep container tightly closed

P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7791-20-0	Nickel(II) chloride hexahydrate (1:2:6)	>95
CAS number: 7718-54-9	Nickel(II) chloride	<5

**Additional Information:** None

## SECTION 4: First aid measures

### Description of first aid measures

#### General notes:

Not determined or not applicable.

#### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Move exposed individual to fresh air

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Call a POISON CONTROL CENTER or seek medical attention

### After skin contact:

Rinse affected area with soap and water  
If symptoms develop or persist, seek medical attention  
Wash affected area with soap and water  
Seek medical attention if symptoms develop or persist

### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes  
If symptoms develop or persist, seek medical attention

### After swallowing:

Rinse mouth thoroughly  
Seek medical attention if irritation, discomfort, or vomiting persists  
Immediately call a POISON CONTROL CENTER or seek medical attention  
Do not induce vomiting  
Rinse mouth and then drink plenty of water

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

#### Acute symptoms and effects:

Not determined or not applicable.

#### Delayed symptoms and effects:

Not determined or not applicable.

### Immediate medical attention and special treatment

#### Specific treatment:

Not determined or not applicable.

#### Notes for the doctor:

Not determined or not applicable.

## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

#### Unsuitable extinguishing media:

Not determined or not applicable.

### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

### Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing  
Refer to Section 8

### Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols  
Avoid contact with skin, eyes and clothing

## SECTION 6: Accidental release measures

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

Ensure adequate ventilation  
Ensure air handling systems are operational  
Wear protective eye wear, gloves and clothing

### Environmental precautions:

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Should not be released into the environment  
Prevent from reaching drains, sewer or waterway

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

Wear protective eye wear, gloves and clothing

### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.  
Avoid breathing mist or vapor.

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

Store in a cool, well-ventilated area.

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

### Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

### Biological limit values:

No biological exposure limits noted for the ingredient(s).

### Information on monitoring procedures:

Not determined or not applicable.

### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

Select glove material impermeable and resistant to the substance.

#### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

### General hygienic measures:

Wash hands before breaks and at the end of work.  
Avoid contact with skin, eyes and clothing.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance	Green solid
Odor	Odorless
Odor threshold	Not determined or not available.
pH	4 - 6 (5% aq. sol.)
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	973°C
Flash point (closed cup)	Not determined or not available.

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Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	1 mmHg at 615.6°C
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	3.55 g/cm <sup>3</sup>
Solubilities	Soluble in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	> 140°C
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

### Other information

Molecular weight	237.72 g/mol
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## SECTION 10: Stability and reactivity

### Reactivity:

Does not react under normal conditions of use and storage.

### Chemical stability:

Stable under normal conditions of use and storage.

### Possibility of hazardous reactions:

None under normal conditions of use and storage.

### Conditions to avoid:

Incompatible products, dust generation.

### Incompatible materials:

Strong acids, peroxides, metals.

### Hazardous decomposition products:

Hydrogen chloride gas and Chlorine. Burning produces obnoxious toxic fumes.

## SECTION 11: Toxicological information

### Acute toxicity

**Assessment:** Toxic if swallowed Toxic if inhaled

**Product data:** No data available.

### Substance data:

Name	Route	Result
Nickel(II) chloride hexahydrate (1:2:6)	oral	LD50 - Rat - 681 mg/kg
	inhalation	Toxic if inhaled.
Nickel(II) chloride	oral	LD50 - Rat - 681 mg/kg
	inhalation	Toxic if inhaled.

### Skin corrosion/irritation

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## Nickel Chloride Hexahydrate

**Assessment:** Causes skin irritation

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel(II) chloride hexahydrate (1:2:6)	Causes skin irritation.
Nickel(II) chloride	Causes skin irritation.

### Serious eye damage/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Respiratory or skin sensitization

**Assessment:** May cause an allergic skin reaction May cause allergy or asthma symptoms or breathing difficulties if inhaled

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel(II) chloride hexahydrate (1:2:6)	May cause an allergic skin reaction.
	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Nickel(II) chloride	May cause an allergic skin reaction.
	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### Carcinogenicity

**Assessment:** May cause cancer

**Product data:** No data available.

**Substance data:**

Name	Species	Result
Nickel(II) chloride hexahydrate (1:2:6)		May cause cancer by inhalation.
Nickel(II) chloride		May cause cancer by inhalation.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

### Germ cell mutagenicity

**Assessment:** Suspected of causing genetic defects

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel(II) chloride hexahydrate (1:2:6)	Suspected of causing genetic defects.
Nickel(II) chloride	Suspected of causing genetic defects.

### Reproductive toxicity

**Assessment:** May damage fertility or the unborn child

**Product data:** No data available.

**Substance data:**

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Name	Result
Nickel(II) chloride hexahydrate (1:2:6)	May damage the unborn child.
Nickel(II) chloride	May damage the unborn child. Suspected of damaging fertility.

### Specific target organ toxicity (single exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel(II) chloride hexahydrate (1:2:6)	Causes damage to organs through prolonged or repeated exposure.
Nickel(II) chloride	May cause damage to organs through prolonged or repeated exposure.

### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

## SECTION 12: Ecological information

### Acute (short-term) toxicity

**Assessment:** Very toxic to aquatic life

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel(II) chloride hexahydrate (1:2:6)	LC50 - Fish - 96 H - 3.1 mg/l
	LC50 - Crustaceans - 48 H - 0.013 mg/l - 160 mg/l
	EC50 - Crustaceans - 48 H - 7.59 mg/l
	EC - Algae - 96 H - 17 mg/l

### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

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**Other adverse effects:** No data available.



### SECTION 13: Disposal considerations

**Disposal methods:**



It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

### SECTION 14: Transport information



#### United States Transportation of dangerous goods (49 CFR DOT)

<b>UN number</b>	UN3288
<b>UN proper shipping name</b>	Toxic Solid, Inorganic ( Nickel (II) Chloride Hexahydrate) N.O.S,
<b>UN transport hazard class(es)</b>	6.1  
<b>Packing group</b>	III
<b>Environmental hazards</b>	Marine Pollutant
<b>Special precautions for user</b>	None

#### International Maritime Dangerous Goods (IMDG)

<b>UN number</b>	UN3288
<b>UN proper shipping name</b>	Toxic Solid, Inorganic ( Nickel (II) Chloride Hexahydrate) N.O.S,
<b>UN transport hazard class(es)</b>	6.1  
<b>Packing group</b>	III
<b>Environmental hazards</b>	Marine Pollutant
<b>Special precautions for user</b>	None

#### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

<b>UN number</b>	UN3288
<b>UN proper shipping name</b>	Toxic Solid, Inorganic ( Nickel (II) Chloride Hexahydrate) N.O.S,
<b>UN transport hazard class(es)</b>	6.1  
<b>Packing group</b>	III
<b>Environmental hazards</b>	Marine Pollutant
<b>Special precautions for user</b>	None

### SECTION 15: Regulatory information

**United States regulations**

**Inventory listing (TSCA):**



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7791-20-0	Nickel(II) chloride hexahydrate (1:2:6)	Not Listed
7718-54-9	Nickel(II) chloride	Listed

**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

### SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

**SARA Section 302 extremely hazardous substances:** Not determined.

### SARA Section 313 toxic chemicals:

7791-20-0	Nickel(II) chloride hexahydrate (1:2:6)	Not Listed
7718-54-9	Nickel(II) chloride	Listed

### CERCLA:

7718-54-9	Nickel(II) chloride	Listed	100 lbs.
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**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):** Not determined.

### Massachusetts Right to Know:

7791-20-0	Nickel(II) chloride hexahydrate (1:2:6)	Listed
7718-54-9	Nickel(II) chloride	Listed

### New Jersey Right to Know:

7791-20-0	Nickel(II) chloride hexahydrate (1:2:6)	Listed
7718-54-9	Nickel(II) chloride	Listed

### New York Right to Know:

7791-20-0	Nickel(II) chloride hexahydrate (1:2:6)	Listed
7718-54-9	Nickel(II) chloride	Listed

### Pennsylvania Right to Know:

7791-20-0	Nickel(II) chloride hexahydrate (1:2:6)	Listed
7718-54-9	Nickel(II) chloride	Listed

**California Proposition 65:** None of the ingredients are listed.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

### Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 3-0-0

**HMIS:** 3-0-0-X

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**Nickel Chloride Hexahydrate**

**End of Safety Data Sheet**