

Nickel Chloride 6-Hydrate

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nickel Chloride 6-Hydrate

Synonyms/Generic Names: Not Available

SDS Number: 481.00

Product Use: For Educational Use Only

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Contact: Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Carcinogen, Target organ effect, Toxic by ingestion, Respiratory sensitizer, Irritant

Target Organs: Lungs, Sense organs and special senses (nose, eye, ear, and taste)

Signal Words: Danger

Pictograms:



GHS Classification

Acute toxicity, Oral	Category 3
Skin irritation	Category 2
Eye irritation	Category 2A
Respiratory sensitization	Category 1
Carcinogenicity	Category 1B
Acute aquatic toxicity	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H301	Toxic if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350	May cause cancer
H400	Very toxic to aquatic life

Precautionary Statements:

P201	Obtain special instructions before use
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P273	Avoid release to the environment
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing
P308+P313	IF exposed or concerned: Get medical advice/attention

Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	May be harmful if inhaled. Can cause corrosive action on mucous membranes. May cause delayed pulmonary edema. May cause spasms and inflammation. Toxic if inhaled.
Skin	May be harmful if absorbed through skin. Cause skin irritation.
Ingestion	Material may be fatal if swallowed.

NFPA Ratings

Health	3
Flammability	0
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	3
Fire	0
Reactivity	0
Personal	E

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Nickel Chloride Hexahydrate	>95	7791-20-0	231-743-0	Cl ₂ Ni·6H ₂ O	237.69 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use appropriate media for adjacent fire. Use flooding quantities of water to cool containers.
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Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (hydrogen chloride gas and nickel oxides) under fire conditions. (See also Stability and Reactivity section)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste or cleanup materials in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Nickel Chloride	1 mg/m ³ (Ni)	PEL	OSHA
	0.1 mg/m ³ (Ni)	TLV	ACGIH
	0.015 mg/m ³ (Ni)	REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear neoprene or nitrile gloves, full body (synthetic) protective clothing appropriate to the risk of exposure.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Blue-green crystals. Solid
Odor	No odor
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	Not Available
Vapor density	Not Available
Relative density	Not Available
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Moisture
Incompatible Materials	Strong oxidizers, peroxides
Hazardous Decomposition Products	Hydrogen Chloride, Nickel oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral – rat- 105 mg/kg

Carcinogenicity

IARC	1: Carcinogenic to humans
ACGIH	A4: Not classifiable as a human carcinogen.
NTP	K: Known carcinogen
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Irritation. Material is absorbed through skin.
Eyes	Eye irritation.
Respiratory	Burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea. May cause spasm, inflammation and edema.
Ingestion	Salivation, nausea, vomiting, abdominal pain and labored breathing.

Chronic Toxicity	Known carcinogen
Teratogenicity	Not Available
Mutagenicity	Genotoxicity in vitro- Human- HeLa cell DNA damage
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	EC50-Daphnia Magna (water flea)- 0.51 mg/l – 48 h
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN3288, Toxic solid, inorganic, n.o.s., (Nickel Chloride), 6.1, pg III
TDG	UN3288, TOXIC SOLID, INORGANIC, N.O.S., (NICKEL CHLORIDE), 6.1, pg III
IDMG	UN3288, TOXIC SOLID, INORGANIC, N.O.S., (NICKEL CHLORIDE), 6.1, pg III
Marine Pollutant	Yes
IATA/ICAO	UN3288, Toxic solid, inorganic, n.o.s., (Nickel Chloride), 6.1, pg III

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Listed: Nickel (II) Chloride Hexahydrate
SARA 302	Listed: Nickel (II) Chloride Hexahydrate
SARA 304	Listed: Nickel (II) Chloride Hexahydrate
SARA 311	Nickel (II) Chloride Hexahydrate
SARA 312	Nickel (II) Chloride Hexahydrate
SARA 313	Listed: Nickel (II) Chloride Hexahydrate
WHMIS Canada	Class D-1B: Toxic Material Causing Immediate and Serious Toxic Effects D-2A: Very Toxic Material Causing Other Toxic Effects

16. OTHER INFORMATION

Revision	Date
Revision 1	02/04/2013

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