

ACROS ORGANICS

Material Safety Data Sheet

Revision Date 25-Jul-2011

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Nickel(II) chloride hexahydrate	
Cat No.	AC270510000; AC270510010; AC270512500	
Synonyms	Nickel dichloride.; Nickelous chloride	
Recommended Use	Laboratory chemicals	
Company	Entity / Business Name	Emergency Telephone Number
Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	Acros Organics One Reagent Lane Fair Lawn, NJ 07410	For information in the US, call: 001-800- ACROS-01 For information in Europe, call: +32 14 57 52 11 Emergency Number, Europe: +32 14 57 52 99 Emergency Number, US: 001-201-796-7100 CHEMTREC Phone Number, US: 001-800- 424-9300 CHEMTREC Phone Number, Europe: 001- 703-527-3887

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Cancer hazard. Toxic by inhalation and if swallowed. May cause harm to the unborn child. May cause allergic respiratory and skin reaction. Irritating to skin. Danger of serious damage to health by prolonged exposure. Possible risks of irreversible effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Appearance Green

Physical State Solid

odor odorless

Target Organs Skin, Respiratory system

Potential Health Effects

Acute Effects**Principle Routes of Exposure**

Eyes	May cause irritation.
Skin	Causes skin irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May be harmful in contact with skin.
Inhalation	May cause severe allergic respiratory reaction. Exposure through inhalation may result in delayed pulmonary edema, which may be fatal.
Ingestion	Toxic if swallowed. Causes gastrointestinal tract irritation.

Chronic Effects

Repeated skin contact may lead to irritation and to sensitization, possible with cross-sensitization to other epoxys. Cancer hazard.. May cause cancer by inhalation..

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Nickel(II) chloride hexahydrate (1:2:6)	7791-20-0	>95
Nickel(II) chloride	7718-54-9	-

4. FIRST AID MEASURES

Eye Contact	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not rub affected area..
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. In the case of skin irritation or allergic reactions see a physician.
Inhalation	Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.
Ingestion	Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	No information available.
Method	No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Suitable Extinguishing Media	Dike fire-control water for later disposal. Use water spray to cool unopened containers. Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..

Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	No information available.
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	No information available.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Health 2 Flammability 0 Instability 0 Physical hazards N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation
Environmental Precautions	Should not be released into the environment
Methods for Containment and Clean Up	Avoid dust formation. Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal. Provide adequate ventilation. Do not flush into surface water or sanitary sewer system.

7. HANDLING AND STORAGE

Handling	Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or mists. Do not ingest. Use only in area provided with appropriate exhaust ventilation. Use only in well-ventilated areas. Minimize dust generation and accumulation.
Storage	Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
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Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Nickel(II) chloride hexahydrate (1:2:6)	TWA: 0.1 mg/m ³	(Vacated) TWA: 0.1 mg/m ³	IDLH: 10 mg/m ³ TWA: 0.015 mg/m ³
Nickel(II) chloride	TWA: 0.1 mg/m ³	(Vacated) TWA: 0.1 mg/m ³	IDLH: 10 mg/m ³ TWA: 0.015 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Nickel(II) chloride hexahydrate (1:2:6)	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³	TWA: 0.1 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Nickel(II) chloride	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³	TWA: 0.1 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Green
odor	odorless
Odor Threshold	No information available.
pH	4-6 5% aq.sol.
Vapor Pressure	1 mmHg @ 615.6 °C
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	No information available.
Melting Point/Range	No information available.
Decomposition temperature	> 140°C
Flash Point	No information available.
Evaporation Rate	No information available.
Specific Gravity	3.55 (H ₂ O=1)
Solubility	No information available.
log Pow	No data available
Molecular Weight	237.71
Molecular Formula	Cl ₂ Ni . 6 H ₂ O

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Avoid dust formation. Excess heat. Incompatible products.
Incompatible Materials	Strong acids, Peroxides, Metals
Hazardous Decomposition Products	Hydrogen chloride gas, Chlorine, Burning produces obnoxious and toxic fumes
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nickel(II) chloride hexahydrate (1:2:6)	105 mg/kg (Rat)	Not listed	Not listed
Nickel(II) chloride	105 mg/kg (Rat)	Not listed	Not listed

Irritation Irritating to skin

Toxicologically Synergistic Products No information available.

Chronic Toxicity**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen. May cause cancer by inhalation.

Component	ACGIH	IARC	NTP	OSHA	Mexico
Nickel(II) chloride hexahydrate (1:2:6)	Not listed	Group 1	Not listed	X	Not listed
Nickel(II) chloride	Not listed	Group 1	Not listed	X	Not listed

Sensitization May cause sensitization by inhalation and skin contact

Mutagenic Effects Possible risk of irreversible effects

Reproductive Effects May cause harm to the unborn child.

Developmental Effects No information available.

Teratogenicity No information available.

Other Adverse Effects The toxicological properties have not been fully investigated.. See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
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Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Nickel(II) chloride	0.66 mg/L EC50 = 72 h 0.0063 - 0.0125 mg/L EC50 96 h	9.65 mg/L LC50 96 h 100 mg/L LC50 96 h 1.9-4 mg/L LC50 96 h 18.1-25.5 mg/L LC50 96 h 2.02-6.88 mg/L LC50 96 h 2.83-5.99 mg/L LC50 96 h 29.76-43.57 mg/L LC50 96 h 6.63-9.15 mg/L LC50 96 h 6.7-9.7 mg/L LC50 96 h 6.9 mg/L LC50 96 h 25 mg/L LC50 96 h 1.3 mg/L LC50 96 h	Not listed	0.51 mg/L EC50 = 48 h 6.68 mg/L EC50 = 48 h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal 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

14. TRANSPORT INFORMATION

DOT

UN-No UN3288
Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S.
Proper technical name (NICKEL(II) CHLORIDE HEXAHYDRATE)
Hazard Class 6.1
Packing Group III

TDG

UN-No UN3288
Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S.
Hazard Class 6.1
Packing Group III

IATA

UN-No UN3288
Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S.
Hazard Class 6.1
Packing Group III

IMDG/IMO

14. TRANSPORT INFORMATION

UN-No UN3288
 Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S.
 Hazard Class 6.1
 Packing Group III

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Nickel(II) chloride hexahydrate (1:2:6)	-	-	-	-	-		X	X	X	X	-
Nickel(II) chloride	X	X	-	231-743-0	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Not applicable

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Nickel(II) chloride hexahydrate (1:2:6)	7791-20-0	>95	0.1
Nickel(II) chloride	7718-54-9	-	0.1

SARA 311/312 Hazardous Categorization

Acute Health Hazard Yes
 Chronic Health Hazard Yes
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

Clean Water Act

Not applicable

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Nickel(II) chloride hexahydrate (1:2:6)	-	-	X	-
Nickel(II) chloride	X	-	X	-

Clean Air Act

Not applicable

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Nickel(II) chloride hexahydrate (1:2:6)	X		-
Nickel(II) chloride	X		-

OSHA

Not applicable

CERCLA

Not Applicable

Component	Hazardous Substances RQs	CERCLA EHS RQs
Nickel(II) chloride	100 lb	-

California Proposition 65

This product does not contain any Proposition 65 chemicals.

Component	CAS-No	California Prop. 65	Prop 65 NSRL
Nickel(II) chloride hexahydrate (1:2:6)	7791-20-0	Carcinogen	-
Nickel(II) chloride	7718-54-9	Carcinogen	-

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Nickel(II) chloride hexahydrate (1:2:6)	-	X	X	X	X
Nickel(II) chloride	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2A Very toxic materials
 D1B Toxic materials
 D2B Toxic materials



16. OTHER INFORMATION

Prepared By Regulatory Affairs
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Revision Summary (M)SDS sections updated 2 3 11 16

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS