

Revision Date 15-Jun-2011

Revision Number 4

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Description: Nickel(II) chloride hexahydrate
Cat No. 193570000; 193570050; 193570250
Synonyms Nickel dichloride.; Nickelous chloride

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA
 Janssen Pharmaceuticaaan 3a
 2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number

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

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute oral toxicity	Category 3
Acute Inhalation Toxicity - Dusts and Mists	Category 3
Skin Corrosion / irritation	Category 2
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1B
Specific target organ systemic toxicity (repeated exposure)	Category 1
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R phrases mentioned in this Section, see Section 16

Symbol(s) T - Toxic
 N - Dangerous for the environment

Nickel(II) chloride hexahydrate

Revision Date 15-Jun-2011

2. HAZARDS IDENTIFICATION

R -phrase(s)

R49 - May cause cancer by inhalation
R61 - May cause harm to the unborn child
R38 - Irritating to skin

Risk Combination Phrases

R68 - Possible risk of irreversible effects
R23/25 - Toxic by inhalation and if swallowed
R42/43 - May cause sensitization by inhalation and skin contact
R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Label Elements



Signal Word

Danger

Hazard Statements

H301 - Toxic if swallowed
H331 - Toxic if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341 - Suspected of causing genetic defects
H410 - Very toxic to aquatic life with long lasting effects
H317 - May cause an allergic skin reaction
H315 - Causes skin irritation
H372 - Causes damage to organs through prolonged or repeated exposure
H350i - May cause cancer by inhalation
H360D - May damage the unborn child

Precautionary Statements - EU (§28, 1272/2008)

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
P308 + P313 - IF exposed or concerned: Get medical advice/ attention
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P280 - Wear protective gloves/ eye protection/ face protection
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P273 - Avoid release to the environment
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

Other Hazards

No information available.

Nickel(II) chloride hexahydrate

Revision Date 15-Jun-2011

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
Nickel(II) chloride 7718-54-9	EEC No. 231-743-0	-	7718-54-9	T; R23/25-48/23 Xi; R38 R42/43 Carc.Cat.1; R49 N; R50-53 Repr.Cat.2; R61 Muta.Cat.3; R68	Acute Tox. 3 (H301) Acute Tox. 3 (H331) Skin Irrit. 2 (H315) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 1A (H350i) Repr. 1B (H360D) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-
Nickel(II) chloride hexahydrate (1:2:6) 7791-20-0		>95	7791-20-0	T; R23/25-48/23 Xi; R38 R42/43 Carc.Cat.1; R49 N; R50-53 Repr.Cat.2; R61 Muta.Cat.3; R68	Acute Tox. 3 (H301) Acute Tox. 3 (H331) Skin Irrit. 2 (H315) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 1A (H350i) Repr. 1B (H360D) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of 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..

Nickel(II) chloride hexahydrate**Revision Date** 15-Jun-2011

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.
Ingestion	Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician or Poison Control Center immediately. Call a physician immediately. If possible drink milk afterwards.
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.
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

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..

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

Advice for fire-fighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning 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

Precautions for Safe Handling

Nickel(II) chloride hexahydrate

Revision Date 15-Jun-2011

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.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

Specific End Uses

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Component

Nickel(II) chloride

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³ Skin			VLA-ED: 0.1 mg/m ³
Nickel(II) chloride hexahydrate (1:2:6)	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³ Skin			VLA-ED: 0.1 mg/m ³

Component

Nickel(II) chloride

Nickel(II) chloride

hexahydrate (1:2:6)

Italy	Portugal	The Netherlands	Finland	Denmark
	TWA: 0.1 mg/m ³		TWA: 0.1 mg/m ³	
	TWA: 0.1 mg/m ³			

Component

Nickel(II) chloride

Nickel(II) chloride

hexahydrate (1:2:6)

Austria	Switzerland	Poland	Norway	Ireland
			TWA: 0.05 mg/m ³	
			TWA: 0.05 mg/m ³	

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

Exposure controls

Engineering Measures

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

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Protective gloves

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

Nickel(II) chloride hexahydrate

Revision Date 15-Jun-2011

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State

Solid

Appearance

Green

odor

odorless

pH

4-6 5% aq.sol.

Vapor Pressure

1 mmHg @ 615.6 °C

Vapor Density

No information available.

Boiling Point/Range

No information available.

Melting Point/Range

No information available.

Decomposition temperature

> 140°C

Flash Point

No information available.

Autoignition Temperature

No information available.

Water Solubility

2540 g/l water (20°C)

Specific Gravity

3.55 (H₂O=1)

Molecular Formula

Cl₂ Ni . 6 H₂ O

Molecular Weight

237.71

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization

Hazardous polymerization does not occur.

Hazardous Reactions .

No information available.

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.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Nickel(II) chloride hexahydrate

Revision Date 15-Jun-2011

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component

Nickel(II) chloride
Nickel(II) chloride
hexahydrate (1:2:6)

LD50 Oral	LD50 Dermal	LC50 Inhalation
105 mg/kg (Rat)		
105 mg/kg (Rat)		

Chronic Toxicity

Carcinogenicity

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

Component

Nickel(II) chloride
Nickel(II) chloride
hexahydrate (1:2:6)

IARC	UK
Group 1	
Group 1	

Sensitization

Mutagenic Effects

Reproductive Effects

Developmental Effects

Target Organs

Other Adverse Effects

May cause sensitization by inhalation and skin contact

Possible risk of irreversible effects

May cause harm to the unborn child

No information available.

No information available.

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

Endocrine Disruptor Information

None known

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
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Nickel(II) chloride hexahydrate

Revision Date 15-Jun-2011

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	0.51 mg/L EC50 = 48 h 6.68 mg/L EC50 = 48 h
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Persistence and degradability

No information available

Bioaccumulative potential

Bioaccumulation is unlikely

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

Nickel(II) chloride hexahydrate

Revision Date 15-Jun-2011

14. TRANSPORT INFORMATION

IMDG/IMO

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

ADR

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

IATA

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

15. REGULATORY INFORMATION

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

International Inventories

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

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory Lists

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

Nickel(II) chloride hexahydrate**Revision Date** 15-Jun-2011**16. OTHER INFORMATION****Text of R phrases mentioned in Section 2-3**

R49 - May cause cancer by inhalation

R61 - May cause harm to the unborn child

R38 - Irritating to skin

R68 - Possible risk of irreversible effects

R23/25 - Toxic by inhalation and if swallowed

R42/43 - May cause sensitization by inhalation and skin contact

R48/23 - Also toxic: danger of serious damage to health by prolonged exposure through inhalation

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Revision Date

15-Jun-2011

Revision Summary

(M)SDS sections updated, 2, 3, 11, 16.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**Disclaimer**

The information provided on this SDS 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 Safety Data Sheet