



Centre Anti-Poison pour le Québec: (800) 463-5060

Tél. (Qc): (418) 660-8666 / 800-890-8666

Fax. (Qc): (418) 660-8998

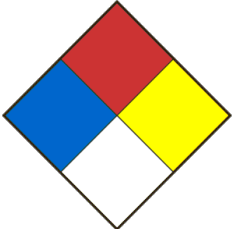
SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier NICKEL CHLORIDE (HEXAHYDRATE)		Product Use Laboratory use	
Chemical formula NiCl ₂ .6H ₂ O		Product code NR-0108 ; NP-0908	Molar weight 237,71
Chemical name / Commercial name / Synonymous NICKEL (II) CHLORIDE HEXAHYDRATE, DICHLORURE DE NICKEL HEXAHYDRATE, CHLORURE NIQUELEUX HEXAHYDRATE, NIQUELOUS CHLORIDE			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666 CENTRE ANTI-POISON DU QUÉBEC 800-463-5060		
Date SDS 7/9/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Skin corrosion/irritation - Skin irritation category 2 Respiratory or skin sensitization - Respiratory sensitizer category 1 Carcinogenicity category 1B Reproductive toxicity category 1B Acute toxicity - Oral category 3 Acute toxicity - Inhalation category 3 Respiratory or skin sensitization - Skin sensitize category 1 Germ cell mutagenicity category 2
Signal Word	DANGER
Hazards statements (H)	H301 Toxic if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H331 Toxic if inhaled. 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.
Precautionary statements (P)	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing dust / fume / gas / mist / vapours / spray. P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do no eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 Wear respiratory protection. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P311 Call a POISON CENTER or doctor/physician. P321 Specific treatment (see section 4 of the SDS and on this label). P330 Rinse mouth. P332 + P313 If skin irritation occurs: Get medical advice/attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P362 + P364 Take off contaminated clothing and wash it before reuse. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)

	Health 3 Fire 0 Reactivity 0 Special danger
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SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Chlorure de nickel hexahydrate	7791-20-0	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Do not use the mouth-to-mouth method if the victim has ingested or inhaled the substance, apply artificial respiration with a pocket mask equipped with a one-way valve or other suitable medical device. Consult a physician.
Ingestion	Do NOT induce vomiting. If the person is conscious, rinse the mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Not flammable or combustible.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do not allow run-off from fire fighting to enter drains or water courses.
Unsuitable extinguishing media	Data not available.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Hydrogen chloride gas. Nickel / Nickel Oxide Chlorine gas.
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). Nickel chloride hexahydrate may react violently with metallic potassium.
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains. Discharge into the environment must be avoided.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Hygroscopic. Keep container tightly closed in a dry and well-ventilated place.
Methods of handling	Use only under a fume hood. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Avoid contact with the skin, eyes and clothes. Avoid formation of dust and aerosols.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Nickel(II) chloride hexahydrate	7791-20-0	TWA	0.100000 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Confirmed Human Carcinogen (means that the agent is carcinogenic to humans)			
	TWA EV 0.100000 mg/m ³ Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants			
		TWAEV	0.100000 mg/m ³	Canada. Ontario OELs
		TWA	0.050000 mg/m ³	Canada. British Columbia OEL
	Elemental nickel and alloys containing nickel are IARC group 2B carcinogens. Nickel compounds are IARC group 1 carcinogens. IARC '1' applies to substances categorized as carcinogenic to humans, and used when there is sufficient evidence of carcinogenicity in humans. IARC '2B' applies to substances deemed possibly carcinogenic to humans. ACGIH 'A1' applies to those substances confirmed as human carcinogens based on the weight of evidence from epidemiological studies			
		TWA	0.100000 mg/m ³	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
	Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.			
		TWA	0.1 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Confirmed Human Carcinogen (means that the agent is carcinogenic to humans)			
	TWA EV 0.1 mg/m ³ Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants			
		TWA	0.05 mg/m ³	Canada. British Columbia OEL
	Elemental nickel and alloys containing nickel are IARC group 2B carcinogens. Nickel compounds are IARC group 1 carcinogens. IARC '1' applies to substances categorized as carcinogenic to humans, and used when there is sufficient evidence of carcinogenicity in humans. IARC '2B' applies to substances deemed possibly carcinogenic to humans. ACGIH 'A1' applies to those substances confirmed as human carcinogens based on the weight of evidence from epidemiological studies			
		TWA	0.1 mg/m ³	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
	Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.			

Data source	Sigma-Aldrich.
Ventilation	Fan.
Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Appearance	Poudre cristalline déliquescente de couleur vert-
Odour	inodore.
Odour threshold	Data not available
pH	Solution aqueuse 5% = pH 3.5 - 5.5.
Melting point / Freezing point	1001°C
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	1 mmHg à 615.6°C
Vapour density	Data not available
Relative density	Data not available
Solubility	Très soluble dans l'eau. Soluble dans l'alcool et l'ammoniaque.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	> 140°C
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Stable under normal conditions.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid moisture and excessive heat. Avoid dust formation.
Incompatible material	Strong oxidizing agents. Peroxides. Metals.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of hydrogen chloride. Nickel / Nickel Oxide Gaseous chlorine.

SECTION 11 - TOXICOLOGICAL INFORMATION

NICKEL CHLORIDE (HEXAHYDRATE)

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation and may cause an allergic and inflammatory reaction of the skin. May be harmful if absorbed through skin.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Toxic if inhaled.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Toxic if swallowed.
Chronic exposure effects / symptoms	Is recognized as a carcinogen (class 1) by IARC. Burning sensation, dermatitis, nervous disorders, chest pains, excitement, tachycardia, diaphoresis, cough, dyspnea, ailments. NOTE: Repeated exposure can lead to strong skin sensitization characterized by severe itching, "nickel itch", erythematous lesions as well as rashes nodulars located between the fingers, wrists and forearms. Prolonged exposure to this product is likely to cause cancer.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 105 mg/kg LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	LC50 - Oncorhynchus mykiss (rainbow trout) - 6.7 - 9.7 mg/L - 96 h (flow-through). 6.63 - 9.7 - 96 h (static). LC50 - Pimephales promelas (fathead minnow) - 1.9 - 4 mg/L - 96 h EC50 - Daphnia magna: 6.68 mg/L - 48 h EC50 - Desmodesmus subspicatus (green algae) - 0.66 mg/L - 72 h
Persistence and degradability	Soluble in water. Persistence is unlikely based on the information provided.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	3288
UN Proper shipping name	SOLIDE INORGANIQUE TOXIQUE, N.S.A. (Chlorure de nickel hexahydrate)
Transport hazard class(es)	6.1 Toxic substances
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	16

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Skin corrosion/irritation - Skin irritation category 2 Respiratory or skin sensitization - Respiratory sensitizer category 1 Carcinogenicity category 1B Reproductive toxicity category 1B Acute toxicity - Oral category 3 Acute toxicity - Inhalation category 3 Respiratory or skin sensitization - Skin sensitize category 1 Germ cell mutagenicity category 2
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SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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