



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

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

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

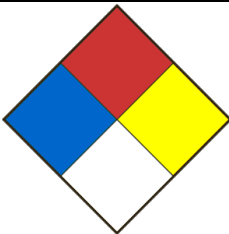
SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier NICKEL (II) NITRATE (HEXAHYDRATE)		Product Use Laboratory use	
Chemical formula Ni(NO ₃) ₂ ·6H ₂ O		Product code NP-0111	Molar weight 290,81
Chemical name / Commercial name / Synonymous NICKEL (II) NITRATE HEXAHYDRATE, NICKELOUS NITRATE HEXAHYDRATE, NITRATE NICKELEUX HEXAHYDRATE, NITRIC ACID NICKEL (II) SALT HEXAHYDRATE, NICKEL (ii) DINITRATE HEXAHYDRATE			
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 10/22/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/eye irritation - Serious eye damage category 1 Respiratory or skin sensitization - Respiratory sensitizer category 1 Carcinogenicity category 1A Reproductive toxicity category 1B Specific Target Organ Toxicity - Repeated exposure category 1 Acute toxicity - Oral category 4 Acute toxicity - Inhalation category 4 Respiratory or skin sensitization - Skin sensitize category 1 Germ cell mutagenicity category 2 Oxidizing solids category 2	
Signal Word	DANGER	
Hazards statements (H)	H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H332 Harmful 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. H372 Causes damage to organs through prolonged or repeated exposure. H272 May intensify fire; oxidiser.	
Precautionary statements (P)	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust / fume / gas / mist / vapors / spray. P261 Avoid breathing dust / fume / gas / mist / vapors / 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. 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 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. 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. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P310 Immediately call a POISON CENTER or doctor/physician. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P314 Get medical advice/attention if you feel unwell. 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. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.	

	P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P220 Keep/Store away from clothing and combustible materials. P370 + P378 In case of fire: Use water for extinction.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 2 Fire 0 Reactivity 1 Special danger OX

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Nitrate de nickel (II) hexahydrate	13478-00-7	<=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. Consult a physician.
Ingestion	If the person is conscious, drink water and do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin irritation. Irritation of the nose and throat. Vomiting. 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	Risk of fire or explosion if heated or milled in the presence of combustible or organic products.
Suitable extinguishing media	Use water to extinguish the fire
Unsuitable extinguishing media	Do not use dry chemicals or foam. CO2 or halon can provide limited control.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: - nitrogen oxides (NOx). Nickel / Nickel Oxide
Special fire and explosion hazards	Contact with combustible products may cause fire. The mixture of water, aluminum powder and metal nitrate can cause an explosion. May react violently with incompatible products (Ref Section 10).
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. Avoid breathing dust. 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.
--	--

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Strongly hygroscopic. Keep container tightly closed and store away from heat, air, moisture and incompatible products. Store in cool place. Store in a well-ventilated area.
Methods of handling	Avoid contact with the skin, eyes and clothes. Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition. Avoid contact with combustible materials. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	No.-CAS	Control parameters	Value	Basis
NICKEL NITRATE (II) HEXAHYDRATE	13478-00-7	TWA	0.100000 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks:				
		TWAEV	0.100000 mg/m ³	Canada. Ontario OELs
		TWA	0.100000 mg/m ³	Quebec. Regulation respecting occupations health and safety. Schedule 1, Part 1 : Permissible exposure values for airborne contaminants
		TWA	0.100000 mg/m ³	USA. ACGIH ACGIH, exposure limit values (TLV)
	Not listed as a carcinogen in humans			
		TWA	0.050000 mg/m ³	Canada. British Columbia OEL
	ACGIH «A1» applies to substances taht are confirmed carcinogens in humans based on the weight of data from epidemiological studies IARC«1» applies to substances categorized as carcinogenic to humans, and it is used when there is sufficient evidence of carcinogenicity in humans.			
		TWA	0.100000 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Confirmed carcinogen in humans (means the agent is carcinogenic to humans)				
		VEMP	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 its nickel-containing alloys are group 2B carcinogens according to IARC. Nickel compounds are group 1 carcinogens according to IARC IARC «1» applies to substances categorized as carcinogenic to humans, and is used when there is sufficient evidence of carcinogenicity in humans. IARC «2B» applies to substances that are considered to be possibly carcinogenic in humans. ACGIH«A1» applies to substances that are confirmed carcinogens in humans based on the weight of data from epidemiological studies.			
		LMPT	0.100000 mg/m ³	Ontario Table : Occupational exposure limits under occupational health and safety law
	Inhalation fraction : the granulometric slice of airborne particles that are deposited naywhere in the airways and collected during air sampling using a granulometric selection device that a) Meets the granulometric selection criteria established by ACGIH; b) has a cut-off point at 100 m to 50 percent efficiency.			
		TWA	0.1 mg/m ³	Canada. Alberta Occupational Health and Safety Code (table 2: OEL)
Confirmed carcinogen in humans (means the agent is carcinogenic to humans)				
		VEMP	0.1 mg/m ³	Quebec. Regulation respecting occupational health and safety, Schedule 1 Part1 : Permissible exposure values for airborne contaminants
		TWA	0.05 mg/m ³	Canada. British Colombia OEL
	Elemental nickel and its nickel-containing alloys are group 2B carcinogens according to IARC. Nickel compounds are groupe 1 carcinogens according to IARC IARC «1» applies to substances categorized as carcinogenic to humans, and is used when there is sufficient evidence of carcinogenicity in humans.			

	IARC «2B» applies to substances that are considered to be possibly carcinogenic in humans.			
	ACGIH «1» applies to substances that are confirmed carcinogens in humans based on the weight of data from epidemiological studies.			
		LMPT	0.1 mg/m ³	Ontario Table: Occupational exposure limits under occupational health and safety law.
	Inhalation fraction: the granulometric slice of airborne particles that are deposited anywhere in the airways and collected during air sampling using a granulometric selection device that a) Meets the granulometric selection criteria established by ACGIH; b) has a cut-off point at 100 m to 50 percent efficiency.			

Data source	Sigma-Aldrich.
Ventilation	Use 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	Cristalline bleu-vert foncé.
Odour	inodore.
Odour threshold	Data not available
pH	Solution aqueuse 5% = pH 3.5 - 5.5.
Melting point / Freezing point	56.7°C
Initial boiling point	137°C
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	Data not available
Vapour density	Data not available
Relative density	2.05g/cm ³
Solubility	Soluble dans l'eau et l'alcool.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	137°C
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Oxidizer: risk of fire in case of contact with combustible / organic substance. Reacts strongly with metals. May react violently with incompatible substances.
Chemical stability	Unstable if heated. Hygroscopic. Exposure to moisture may alter the product.
Possibility of hazardous reactions	Oxidizer. Risk of violent reactions or explosions if heated strongly. May react violently with incompatible substances.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid excessive heat. Reacts with combustible materials. This product becomes deliquescent if exposed to moisture
Incompatible material	Organic materials. Powdered metals. Strong reducing agents. Acids. Strong oxidizing agents. Alkenes, cyanides, hypophosphites, nitrites, phosphinates, thiocyanates, combustible products and organic, heat and moisture. Complexes with tetramine and tetrahydrazine are explosive.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NO _x). - nickel/nickel oxide - nitric acid.

SECTION 11 - TOXICOLOGICAL INFORMATION

NICKEL (II) NITRATE (HEXAHYDRATE)

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Harmful if absorbed through skin. Irritation and dermatitis. May cause allergic skin reactions.
- Inhalation	Toxic if inhaled. Irritation of the mucous membranes and respiratory tract. May cause respiratory allergic reactions. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, nausea and vomiting.
Acute toxicity (Ingestion)	Harmful if swallowed. Irritation of the mucous membranes. Gastrointestinal disorders, cramps, diarrhea, headache, dizziness, sweating, salivation, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Is recognized as a carcinogen (class 1) by IARC. Suspected toxic for reproduction for humans. Proven risk of serious effects on organs as a result of repeated exposure or prolonged exposure. May cause an allergic reaction of the respiratory system. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing. This product may cause respiratory and skin sensitization. Damage to the lungs. May cause pulmonary edema. Dermatitis of contact.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 1620 mg/kg LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Data not available.
Persistence and degradability	Soluble in water. Persistence is unlikely based on 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 with long lasting effects.

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	2725
UN Proper shipping name	NITRATE DE NICKEL
Transport hazard class(es)	5.1 Oxidizing substances
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/eye irritation - Serious eye damage category 1 Respiratory or skin sensitization - Respiratory sensitizer category 1 Carcinogenicity category 1A Reproductive toxicity category 1B Specific Target Organ Toxicity - Repeated exposure category 1 Acute toxicity - Oral category 4 Acute toxicity - Inhalation category 4 Respiratory or skin sensitization - Skin sensitize category 1 Germ cell mutagenicity category 2 Oxidizing solids category 2
--------------	---

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.

Last Update: 10/22/2020