



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

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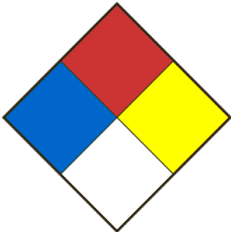
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier NICKEL SULFATE (HEXAHYDRATE)		Product Use Laboratory use	
Chemical formula NiSO ₄ ·6H ₂ O		Product code NR-0109 ; NT-0109; NP-0112	Molar weight 262,86
Chemical name / Commercial name / Synonymous NICKEL (II) SULFATE HEXAHYDRATE, NICKEL MONOSULFATE HEXAHYDRATE, SULFURIC ACID NICKEL (2+) SALT HEXAHYDRATE, NICKEOUS SULFATE CRYSTAL			
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 6/17/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Carcinogenicity category 1A Reproductive toxicity category 1B Specific Target Organ Toxicity - Repeated exposure category 1 Respiratory or skin sensitization - Skin sensitize category 1 Germ cell mutagenicity category 2
Signal Word	DANGER
Hazards statements (H)	H317 May cause an allergic skin reaction. 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.
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 / vapours / spray. 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. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P308 + P313 IF exposed or concerned: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell. P321 Specific treatment (see section 4 of the SDS and on this label). P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. 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.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 3 Fire 0 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Sulfate de nickel (hexahydrate)	10101-97-0	<=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. Consult a physician.
Ingestion	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.
Unsuitable extinguishing media	Data not available.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Nickel / Nickel Oxide - Sulphur oxides
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). Do not allow run-off from fire fighting to enter drains or water courses.
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	Keep container tightly closed in a dry and well-ventilated place. Keep away from oxidizing materials. Keep away from heat sources.
Methods of handling	Avoid contact with the skin, eyes and clothes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Nickel sulphate hexahydrate	10101-97-0	TWA	0.100000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Confirmed Human Carcinogen (means that the agent is carcinogenic to humans)			
	TWAEV 0.100000 mg/m3 Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants			
		TWAEV	0.100000 mg/m3	Canada. Ontario OELs
		TWA	0.050000 mg/m3	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/m3	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 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	Use 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	Cristallin bleu/vert.
Odour	inodore.
Odour threshold	Data not available
pH	Solution aqueuse 100g/L =4.3-4.7.
Melting point / Freezing point	53°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	Data not available
Vapour density	Data not available
Relative density	2.07g/cm ³
Solubility	Soluble dans l'eau 650g/L et l'alcool.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	>280°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 contact with incompatible materials. Avoid excessive heat. Avoid dust formation.
Incompatible material	Oxydants. Bases.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Nickel / Nickel Oxide - Sulphur oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

NICKEL SULFATE (HEXAHYDRATE)

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Respiratory allergy, dizziness, cough, dyspnea, headache, convulsions, nausea and vomiting.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Gastrointestinal disorders, enteritis, dizziness, diarrhea, headache, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Is recognized as a carcinogen (class 1) by IARC. Burning sensation, dermatitis, respiratory allergy, nervous disorders, dizziness, headache, cough, dyspnea, laryngitis, loss of appetite, convulsions, nausea and vomiting. Suspected toxic for reproduction for humans. May impair fertility or the fetus
DL50 (specify species and route of entry)	LD50 Oral - Rat - 361 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	CL50 inhalation - Rat 2.48 mg/L - 4 h.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	CL50 - Brachydanio rerio 100 mg/ L - 24 h. LC50 - Oncorhynchus mykiss (rainbow trout) - 1.28 mg/L - 96 h. EC50 - Daphnia magna (Water flea) - 1 mg/L - 48 h. EC50 - Pseudokirchneriella subcapitata (green algae) - 0.75 mg/L - 72 h.
Persistence and degradability	May persist based on information provided.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment 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 organisms, may cause long-term adverse effects in the aquatic environment. Do not flush into surface water or sanitary sewer system.

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. (Sulfate de nickel hexahydrate)
Transport hazard class(es)	6.1 Toxic substances
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Carcinogenicity category 1A Reproductive toxicity category 1B Specific Target Organ Toxicity - Repeated exposure category 1 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.

Last Update: 6/17/2020