

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Nickel (II) nitrate hexahydrate
CAS #: 13478-00-7
FORMULA: Ni(NO₃)₂·6H₂O
SYNONYM: Nitric acid, nickel(2+)salt, hexahydrate, nickelous nitrate hexhydrate

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	13478-00-7	100	0.1mg/m ³ (as Ni-soluble)	1mg/m ³ (as Ni-soluble)

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: Ingestion of nickel salts has been shown to cause intestinal disorders, convulsions, and asphyxia. Nickel is a recognized carcinogen of the nasal cavity, paranasal sinuses, and the lungs.

PRIMARY ROUTES OF EXPOSURE: Ingestion, inhalation

EYE CONTACT: Causes slight to mild irritation of the eyes.

SKIN CONTACT: Causes slight to mild irritation of the skin. Prolonged contact with nickel salts may lead to dermatitis.

INHALATION: Irritating to the nose, mucous membranes and respiratory tract.

INGESTION: Harmful if swallowed. Ingestion may lead to dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness and convulsions.

CHRONIC HEALTH EFFECTS: Long term exposure to nickel and nickel compounds may be potentially carcinogenic. Nickel salts may lead to skin irritation and dermatitis.

ACUTE HEALTH EFFECTS: : Irritating to skin, eyes and respiratory tract.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable

AUTO IGNITION TEMPERATURE: none

EXPLOSION LIMITS: none

EXTINGUISHING MEDIUM: carbon dioxide, foam or dry powder

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit irritating fumes.

UNUSUAL FIRE OR EXPLOSION HAZARDS: metal nitrates can be oxidizers. Contact with strong reducing agents could lead to fire and/or explosions.

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: Small spills can be mixed with vermiculite or sodium carbonate and swept up.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container. Keep away from heat and direct sunlight.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: green flake

MOLECULAR WEIGHT: 182.72 (290.81)

MELTING POINT (DEG. C.): none

BOILING POINT: no data

VAPOR PRESSURE: not applicable

SPECIFIC GRAVITY: 2.05

SOLUBILITY IN WATER: 238.5g/100cc (0°C)

SECTION 10 Stability and Reactivity

STABILITY: air and moisture stable

HAZARDOUS POLYMERIZATION: no hazardous polymerization
CONDITIONS TO AVOID: Contact with strong reducing agents or organic matter.
INCOMPATIBILITY: reducing agents, organic matter, phosphorus and sulfur
DECOMPOSITION PRODUCTS: nitrogen oxides and nickel salts

SECTION 11 Toxicological Information

RTECS DATA: Oral (rat); LD50: 1620 mg/kg
MUTAGENIC EFFECTS: no data
TETRATOGENIC EFFECTS: no data
CARCINOGENIC EFFECTS: Carcinogen
To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Nickel nitrate, Class 5.1, UN2725, PGIII

SECTION 15 Regulatory Information

TSCA: Not listed in the TSCA inventory
SARA (TITLE 313): Title compound : See category N465 and N511 for reporting.

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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