FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

Material Safety Data Sheet (MSDS)

MSDS #: 543.00

Revision Date: September 20, 2004

Section 1 — Chemical Product and Company Identification

Nickel Nitrate

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

Section 2 — Composition, Information on Ingredients

Nickel nitrate, hexahydrate

Synonyms: nickel(II) nitrate, nickelous nitrate, nickel dinitrate

CAS#: 13478-00-7

Section 3 — Hazards Identification

Green, deliquescent, odorless crystals.

Nickel compounds are known carcinogens by inhalation of dust. Slightly toxic by ingestion and inhalation. Irritating to body tissues. Avoid all body tissue contact.

FLINN AT-A-GLANCE

Health-1 Flammability-0 Reactivity-3 Exposure-1 Storage-1

0 is low hazard, 3 is high hazard

Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Rinse out mouth, give 1 to 2 cups of water or milk, induce vomiting. Call a physician or poison control at once.

Section 5 — Fire Fighting Measures

Non flammable solid.

Strong oxidizer. Dangerous fire risk when in contact with combustible materials. When heated to decomposition, emits toxic fumes of NOx.

Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

None Established

Section 6 — Accidental Release Measures

Restrict unprotected personnel from area. Sweep up, place in sealed bag or container and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

Section 7 — Handling and Storage

Flinn Suggested Chemical Storage Pattern: Inorganic #3. Store with amides, nitrates and nitrites. Store in a cool dry place. Deliquescent, store in Flinn Chem-Saf Bag. Use and dispense in a hood.

Section 8 — Exposure Controls, Personal Protection

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire). Exposure guidelines: TWA 1 mg/m3 (Ni) (OSHA)

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Section 9 — Physical and Chemical Properties

Green, deliquescent, odorless crystals.

Solubility: Soluble in water, alcohol and ammonium hydroxide.

Formula: Ni(NO3)2 6H2O Formula Weight: 290.82 Specific Gravity: 2.065 Melting Point: 55 C Boiling Point: 136.7 C

Section 10 — Stability and Reactivity

Avoid contact with strong reducers and strong acids.

Shelf Life: Poor; deliquescent.

Section 11 — Toxicological Information

Acute effects: Sensitizer, irritant Chronic effects: N.A. Target organs: Lungs ORL-RAT LD50: 1620 mg/kg IHL-RAT LC50: N.A. SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

Section 12 — Ecological Information

Data not yet available.

Section 13 — Disposal Considerations

Please consult with state and local regulations. Flinn Suggested Disposal Method #27f is one option.

Section 14 — Transport Information

Shipping Name: Nickel Nitrate Hazard Class: 5.1, Oxidizer UN Number: UN2725

N/A = Not applicable

Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (236-068-5), RCRA code D001.

Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

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Questions on Chemical Disposal or Storage?--Call Flinn

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