Revised: 6/07 Revision: C Product Name: Nimuden NPR-4-A

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UIC urges each customer or recipient of this MSDS to study carefully to become aware of and understand the hazards associated with this product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety; 2) Furnish this same information to each of its customers for the product; and 3) Request its customers to notify their employees, customers, and other users of the product of this information.

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 **IDENTIFICATION**

Product name:

Nimuden NPR-4-A (20 liter packaging)

Chemical name:

Nickel salt

Chemical family: Formula:

Nickel salt Not applicable

1.2 **COMPANY IDENTIFICATION**

Uyemura International Corporation

3990 Concours, Suite 425

Ontario, CA 91764

Southington, CT 06489 860-793-4011 909-466-5635

EMERGENCY TELEPHONE NUMBER 1.3

24 hours a day: In case of spill, leak, exposure or accident- Call Chemtrec 1-800-424-9300 /+1-703-527-3887.

240 Town Line Road

Number for non-emergency questions concerning MSDS (860)793-4011 Additional information on this product may be obtained by calling (800)243-3564

2. COMPOSITION INFORMATION

Principal Hazardous Component(s)	CAS#	Amount (%)	
*Nickel sulfate	7786-81-4	45	

^{*} This chemical is regulated as a toxic chemical under Section 313 Title III. The Superfund Amendments and Authorization Act of 1986. And 40 CFR Part 372 and must be reported on the EPA form R.

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3. HAZARD IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Appearance

green

Physical sate

solution

Odor

None

Hazards of product DANGER: Can be corrosive to skin tissue. Harmful if swallowed

3.2 POTENTIAL HEALTH EFFECTS

Effects of Single Acute Overexposure

Skin contact can cause allergic reaction (Nickel itch). Nickel itself is not toxic if swallowed, but its soluble salts are toxic, and if swallowed may cause giddiness and severe nausea. A physician should be contacted immediately if anyone develops any signs or symptoms and suspects they are caused by an exposure to soluble nickel compounds.

Chronic, Prolonged Exposure or Repeated Overexposure

Persons with a history, allergies, or known sensitization to soluble nickel compounds would be expected to be high risk from exposure. Examination of the nasal cavities and lungs should be surveyed for evidence of chronic disorder. Suspected carcinogen

3.3 POTENTIAL ENVIRONMENTAL EFFECTS

This substance is toxic to marine life and should not be flushed to sewers, drains, etc.

4. FIRST AID PROCEDURES

SKIN AND EYES: If solids or liquids comes into contact with skin, immediately flush the contaminated area with water. If the product has penetrated the clothing barrier in concentrated amounts; quickly, while under the shower, remove all contaminated clothing. If an irritation persists after cleansing, consult a physician immediately. In case of contact with eyes flush eyes with water immediately. Obtain medical attention.

INHALATION: If a person breathes in large amounts of mist or dust, remove the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration at once. Keep the affected person warm and at rest; get medical attention promptly.

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INGESTION: If the person has inadvertently swallowed some of the material and they are conscious, try to have the person vomit by having him or her touch the back of their throat with a

finger. Do not make an unconscious person vomit. Obtain medical attention immediately.

5. FIRE FIGHTING MEASURES

Flash Point (Method used): Non-Flammable Flammable Limits Uel: N/A Extinguishing Media: Water fog. Do not use CO₂ Lel: N/A

Special Fire Fighting Procedures: Self contained breathing apparatus with full face piece

operated in pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards: Do not flush run-off to open drains, sewers or any

waterway.

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: Liquid or solid spills should be responded to immediately. The spill, if liquid can be absorbed with an inert material; the solid spill can be swept or shoveled and put into a clean container/cover to ensure proper containment. All cleanup materials when contained must be labeled properly and stored in a safe place to await proper disposal. Persons performing the clean-up work should wear personal protective clothing and equipment.

7. HANDLING AND STORAGE

7.1 HANDLING

General Handling

Do not breathe vapor
Do not allow contact with eyes, skin or clothing
Do not swallow.

Keep container closed.

Use with adequate ventilation

Wash thoroughly after handling

NOT INTENDED FOR DRUG USE. FOR INDUSTRIAL USE ONLY.

Ventilation

General(mechanical ventilation is expected satisfactory where this product is stored and handled in closed equipment. Special, local ventilation is needed at points where vapors can be expected to escape to the workplace air.

Other Precautions

None

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with work place related limits to be monitored

Nickel sulfate CAS# 7786-81-4 ACGIH TLV 0.1 mg/M3 as Ni OSHA PEL 1.0 mg/M3

Respiratory Protection (Specify type): Do not breath dust or vapors. NIOSH recommends 15 microgram/M3 (10 hour time weighted average).OSHA recommends 1 mg/M3 as an eight hour time weighted average. Above this level use an NIOSH-approved self-contained breathing apparatus with full face-piece

Ventilation Local Exhaust: Local exhaust to keep dust and mist

below exposure limits

Mechanical: General ventilation required.

Other: Protective Gloves: Rubber gloves.

Eye Protection: Face shield and splash-proof safety

goggles. Contact lens should not be worn.

Other Protective Equipment: Rubber apron or other impervious clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F): >100°C Specific Gravity (H2O=1): 1.26

Vapor Pressure (mm Hg): N/A % Volatile by Volume :N/A

Vapor Density (air=1): N/A Evaporation Rate :N/A

Solubility in Water: Soluble. pH: 5.5-6.5

Appearance and Odor: Green solution, no odor.

10. STABILITY AND REACTIVITY

Stability -- Stable Condition to Avoid : None

Incompatibility (Materials to avoid): Strong reducing agents

Hazardous Decomposition Products: None **Hazardous Polymerization** -- Can Not Occur

11. TOXICOLOGICAL INFORMATION

Routes of entry: Ingestion, inhalation

Toxicity to Animals: Acute oral toxicity (LD50): 264 mg/kg (Rat) for Nickel sulfate

Chronic Effects on Humans CARCINOGENIC EFFECTS: Classified A1 by ACGIH, 1 by

IARC, + by OSHA/NIOSH Classified 2 by NTP. Toxicity of the

product to the reproductive system: not available.

Other Toxic Effects Very dangerous in case of skin contact (irritant), of eye contact

(irritant) of inhalation, of ingestion.

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12. ECOLOGICAL INFORMATION

Ecotoxicological Information

No ecotoxiclogical studies are available

13. DISPOSAL CONSIDERATIONS

The material resulting from a clean-up operation may be considered a listed hazardous waste and therefore, subject to very specific regulations. You must contain, store, transport and dispose of all this material in accordance with all applicable Federal, State and local health and environmental regulations. The shipments of hazardous waste are subject to manifesting requirements under all applicable Federal and State Regulations. Appropriate disposal will depend on the nature of the waste material and should be performed by competent and properly permitted facilities. RCRA waste number -Not listed Empty containers should be recycled or disposed of through an approved waste management company.

14. TRANSPORT INFORMATION

Shipping Information

DOT

Proper Shipping Name:

Nickel Sulfate solution

Hazard Class:

Not Regulated

ID number: DOT Labels:

Special Information

Packing Group:

Reportable quantity: Not regulated in containers less than 100 liters according to Department of Transportation

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status: Reported/Included

HAZARDOUS CHEMICAL LISTS

SARA Extremely Hazardous Substance: No CERCLA Hazardous Substance: Yes SARA Toxic Chemical: Yes

Superfund Amendments and Reauthorization Act of 1986(SARA) Title III Sections 311 and 312

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Delayed Hazard:

Yes

Fire Hazard:

No

Immediate Health Hazard: Yes

Reactive Hazard:

No

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372)

CAS#

Chemical name

Reportable Percent by weight

NA

Nickel Compounds

45

Canadian Regulations:

Class D Division 2 Subdivision B- Toxic material. Skin and eye irritant.

California Proposition 65: This product contains a substance known to the State of California to cause cancer.

16 OTHER INFORMATION

HMIS Rating: Health (2), Flammability(0), Reactivity (0), Contact (2) 4= Extreme; 3= Severe; 2 = Moderate; 1= Slight; 0 = No known hazard

The information, recommendations and suggestions herein is believed to be reliable. However, it is the users responsibility to determine the safe handling and suitability for his/her use of the product described herein. Since the use by others is outside our control, no guarantee, expressed or implied, is made by Uyemura International Corporation as to the effects of such use, the results obtained or the safety and toxicity of the product nor does UIC per se assume any liability arising out of use, by others of the product referred to herein. Nor is the information herein to be construed as absolutely complete since more information may be desirable or necessary when particular or exceptional circumstances exist, or because of applicable laws or government regulations.

End of MSDS