



Material Safety Data Sheet Nickel AA Standard, 1ml=1mg Ni (1000ppm)

Section 1 - Chemical Product and Company Identification

MSDS Name:

Nickel AA Standard, 1ml=1mg Ni (1000ppm)

Catalog Numbers:

LC17670

Synonyms:

Nickel reference solution, 1000ppm

Company Identification:

LabChem Inc

200 William Pitt Way

Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300 or

011-703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	>99
13478-00-7	Nickel (II) nitrate, hexahydrate	0.5
7697-37-2	Nitric acid	4

Section 3 - Hazards Identification

Emergency Overview

Appearance: clear, green solution

Warning! May cause irritation or burns by all exposure routes. May cause cancer. May cause harm to the unborn child. May cause allergic respiratory and skin reactions.

Target Organs: eyes, skin, respiratory and gastrointestinal systems, kidneys, teeth

Potential Health Effects

Eye:

May cause eye irritation or burns.

Skin:

May cause skin irritation or burns.

Ingestion:

May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation.



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Chronic:

May cause dermatitis, conjunctivitis, dental erosion, jaw necrosis, or gastrointestinal disturbances. May cause cancer. May cause harm to the unborn child. May cause allergic skin or respiratory reactions in sensitive individuals.

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid at once.

Ingestion:

Do not induce vomiting. Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:

Move victim to fresh air immediately. If breathing is difficult, administer oxygen. Give artificial respiration if necessary. Get medical aid at once.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Contact with metals may evolve flammable hydrogen gas.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

Health- 2, Flammability- 0, Instability- 0, Special Hazard - OX.

Explosion Limits:

Lower: N/A Upper: N/A

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material such as sand, vermiculite, or diatomaceous earth, and transfer to a suitable container labeled for later disposal.



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Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Do not ingest or inhale. Do not get in eyes, on skin, or on clothing.

Storage:

Store tightly capped in a cool, dry, well-ventilated area away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation to keep airborne levels below the permissible exposure limits.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Nickel (II) nitrate, hexahydrate	0.1 mg/m ³ TWA (inhalable fraction, as Ni) (listed under Nickel, inorganic compounds, Soluble)	0.015 mg/m ³ TWA (as Ni) (listed under Nickel compounds) 0.10 mg/m ³ TWA (as Ni) (listed as Nickel compounds)	1 mg/m ³ TWA (as Ni) (listed under Nickel, Soluble compounds)
Nitric acid	2 ppm TWA 4 ppm STEL	2 ppm TWA 4 ppm STEL 25 ppm IDLH	2 ppm TWA 4 ppm STEL

OSHA Vacated PELs:

Nitric acid: 2 ppm TWA; 5 mg/m³ TWA

Personal Protective Equipment**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: Green

Odor: Odorless



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pH:	Acidic
Vapor Pressure:	No information found.
Vapor Density:	No information found.
Evaporation Rate:	No information found.
Viscosity:	No information found.
Boiling Point:	No information found.
Freezing/Melting Point:	No information found.
Decomposition Temperature:	No information found.
Solubility in water:	Soluble.
Specific Gravity/Density:	1.0
Molecular Formula:	No information found.
Molecular Weight:	No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, excess heat.

Incompatibilities with Other Materials:

Metals, acetic anhydride, organic materials, combustible materials.

Hazardous Decomposition Products:

Nitrogen oxides.

Hazardous Polymerization:

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.
CAS# 13478-00-7: QR7300000.
CAS# 7697-37-2: QU5775000; QU5900000.

LD50/LC50:

CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg
CAS# 13478-00-7:
Oral, rat: LD50 = 1620 mg/kg
CAS# 7697-37-2:
Inhalation, rat: LC50 = 7 mg/L/1H
Inhalation, rat: LC50 = 130 mg/m³/4H

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 13478-00-7: Listed as a carcinogen by California Prop 65, NTP, and IARC.
CAS# 7697-37-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

May cause skin and respiratory sensitization.

Teratogenicity:

Teratogenic effects have occurred in laboratory animals.



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Reproductive:

Reproductive toxicity effects have occurred in laboratory animals.

Mutagenicity:

Mutagenic effects have occurred in laboratory animals.

Neurotoxicity:

No information found.

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Corrosive liquid, Acidic, Inorganic, n.o.s. (Nitric acid)

Hazard Class: 8

UN Number: UN3264

Packing Group: PG II

Section 15 - Regulatory Information

US Federal**TSCA:**

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 13478-00-7 is not listed on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR 720.3(u)(2)).

CAS# 7697-37-2 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

CAS# 7697-37-2: final RQ = 1000 pounds (454 kg)

CERCLA/SARA Section 313:

This material contains Nitric acid (CAS# 7697-37-2, 4%), and Nickel (ii) nitrate (listed as Nickel compounds), (CAS# 13478-00-7, 0.5%), which are subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR part 373.

OSHA - Highly Hazardous:

CAS# 7697-37-2 is considered highly hazardous by OSHA.

US State**State Right to Know:**

Nitric acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.



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Nickel (ii) nitrate can be found on the following state Right-to-Know lists: California (listed as Nickel compounds), Pennsylvania (listed as Nickel compounds), and Minnesota (listed as Nickel, Soluble compounds).

California Regulations:

WARNING: This product contains Nickel (ii) nitrate hexahydrate, listed as Nickel compounds, a chemical know to the State of California to cause cancer.

European/International Regulations

Canadian DSL/NDSL:

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 13478-00-7 is not listed on Canada's DSL or NDSL Lists.

CAS# 7697-37-2 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 13478-00-7 is listed on Canada's Ingredient Disclosure List as Nickel soluble compounds.

CAS# 7697-37-2 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: July 19, 1998

Revision Date: February 25, 2011

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