



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

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
13478-00-7	Nickel(ii) nitrate, hexahydrate (1:2:6)	0.5
7697-37-2	Nitric acid	0.15

Section 3 - Hazards Identification

Emergency Overview

Appearance: *Pale-green*

Caution! *May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Contains nickel, which is a possible cancer hazard.*

Target Organs: *None known.***Potential Health Effects****Eye:**

May cause eye irritation or burns.

Skin:

May cause mild skin irritation or burns.

Ingestion:

May cause irritation of the digestive tract.

Inhalation:

May cause respiratory tract irritation.



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Chronic:

May cause dermatitis, conjunctivitis, dental erosion, jaw necrosis, or gastrointestinal disturbances.
Contains nickel, a possible cancer hazard.

Section 4 - First Aid Measures

Eyes:

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:

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

Ingestion:

Get medical aid at once. If victim is conscious, give 2-4 glasses of water and induce vomiting.

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust.

Extinguishing Media:

Use dry chemical, carbon dioxide, or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: H - 0, F - 0, I - 0.

CAS# 13478-00-7: H - 2, F - 0, I - 1, Special Hazard - OX.

CAS# 7697-37-2: H - 4, F - 0, I - 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 spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal.



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Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:

Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation.

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 (1:2:6)	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; 5 mg/m ³ TWA	2 ppm TWA; 5 mg/m ³ TWA

OSHA Vacated PELs:

Nitric acid: 2 ppm TWA; 5 mg/m³ TWA

Personal Protective Equipment**Eyes:**

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Not required for normal use. Firefighting-- any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	Pale-green
Odor:	Odorless
pH:	Acidic.
Vapor Pressure:	14mm Hg @20°C
Vapor Density:	> air
Evaporation Rate:	< ether
Viscosity:	No information found.



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Boiling Point:	212°F (100.00°C)
Freezing/Melting Point:	32°F (0.00°C)
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.

Incompatibilities with Other Materials:

Metals, acetic anhydride, organic materials, combustible materials.

Hazardous Decomposition Products:

Nitrogen oxides, nitric acid vapors, acrid smoke and fumes.

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 =67 ppm (NO2)/4H.
Inhalation, rat: LC50 =260mg/m³/30M.
Inhalation, rat: LC50 =130 mg/m³/41T.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 13478-00-7:
ACGIH: Not listed
California: Carcinogen (Listed as Nickel compounds).
NTP: Known carcinogen (Listed as Nickel compounds).
IARC: Group I carcinogen (Listed as Nickel compounds).
CAS# 7697-37-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Nitric Acid is a severe eye, skin, and mucous membrane irritant.

Teratogenicity:

No information found.



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Reproductive:

No information found.

Mutagenicity:

No information found.

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 on the TSCA Inventory, however, its anhydrous form is on the inventory and so this hydrate is exempt from TSCA Inventory requirements (40CFR270.3(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, 2%), 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:

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# 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: August 16, 2007

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