

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: ICP blend, 8 Elements in 5% HNO₃

Product Number: RPMX0300

Other Identifying Product Numbers: RPMX0300-100N

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company

Address: 448 West Fork Drive

Arlington, TX 76012 USA

Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA) 800-424-9300

CHEMTREC (International) 1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

Hazard Class	Category	Hazard Statements:	Precautionary Statements:
Skin Corrosion / Irritation	Category 1	H314	P260, P264, P280, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P321, P305+P351+P338, P405, P501
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310
Corrosive to Metals	Category 1	H290	P234, P390, P406

Safety Data Sheet

2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

Hazard Number	Hazard Statement
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Precautionary Statements:

Precautionary Number	Precautionary Statement
P234	Keep only in original container.
P260	Do not breathe fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P280	Wear protective gloves and eye protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or physician.
P321	Specific treatment (Wash areas of contact with water.).
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

Safety Data Sheet

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H ₂ O	18.01 g/mol	7732-18-5	95.90
Nitric Acid	HNO ₃	63.01 g/mol	7697-37-2	4.09
Chromium Nitrate Nonahydrate	Cr(NO ₃) ₃ ·9H ₂ O	238.01 g/mol	7789-02-8	< 0.1
Copper	Cu	63.54 g/mol	7440-50-8	< 0.1
Cadmium	Cd	112.41 g/mol	7440-43-9	< 0.1
Arsenic	As	74.92 g/mol	7440-38-2	< 0.1
Nickel	Ni	58.69 g/mol	7440-02-0	< 0.1
Lead	Pb	207.2 g/mol	7439-92-1	< 0.1
Vanadium	V	50.94 g/mol	7440-62-2	< 0.1
Molybdenum	Mo	95.95 g/mol	7439-98-7	< 0.1
Hydrofluoric Acid	HF	20.00 g/mol	7664-39-3	< 0.1

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation, redness, pain, and tearing.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May cause irritation, redness and pain. Contact will discolor skin yellow-brown depending on exposure which will wear off after a period of time.

Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes severe skin burns and eye damage. Causes serious eye damage. Caution! Corrosive liquid. Contains known and suspected carcinogens. Avoid contact with skin, eyes, and clothing. If swallowed, dilute with water and call a physician. Wash areas of contact with plenty of water. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness and pain. Contact will discolor skin yellow-brown depending on exposure which will wear off after a period of time.

Safety Data Sheet

4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water.). Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Do not induce vomiting. Call physician if necessary.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use water or water spray.

5.2. Specific Hazards Arising from the Substance or Mixture

Not combustible, but substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Can react with metals to release flammable hydrogen gas.

5.3. Special Protective Equipment for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Do not flush to sewer. Absorb with suitable material. Containerize for disposal with a hazardous waste disposal facility. Dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store in corrosive resistant container with a resistant inner liner. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

Safety Data Sheet

SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Lead (7439-92-1)	PEL	USA	"30 µg/m³ Action Level (See 29 CFR 1910.1025); 50 µg/m³ TWA" As Lead [7439-92-1]	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Lead (7439-92-1)	TLV-TWA	USA	"0.05 mg/m³ TWA" As Lead [7439-92-1]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead (7439-92-1)	TWA	USA	"50 µg/m³ TWA" As Lead [7439-92-1]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Lead (7439-92-1)	TLV-TWA	USA	0.05 mg/m³ TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead (7439-92-1)	TWA	USA	50 µg/m³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Lead (7439-92-1)	PEL	USA	30 µg/m³ Action Level (See 29 CFR 1910.1025); 50 µg/m³ TWA	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Lead (7439-92-1)	PEL	USA	"30 µg/m³ Action Level (See 29 CFR 1910.1025, as Pb); 50 µg/m³ TWA (as Pb)" As Lead, inorganic compounds [RR-00538-9]	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Lead (7439-92-1)	TLV-TWA	USA	"0.05 mg/m³ TWA (as Pb)" As Lead inorganic compounds [RR-00538-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead (7439-92-1)	TWA	USA	"50 µg/m³ TWA (as Pb)" As Lead, inorganic compounds [RR-00538-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Molybdenum (7439-98-7)	TWA	USA	"15 mg/m³ TWA (total dust)" As Molybdenum, insoluble compounds [RR-00037-3]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Molybdenum (7439-98-7)	TLV-TWA	USA	10 mg/m³ TWA (inhalable particulate matter); 3 mg/m³ TWA (respirable particulate matter)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Safety Data Sheet

Molybdenum (7439-98-7)	TLV-TWA	USA	10 mg/m ³ TWA (inhalable particulate matter, as Mo); 3 mg/m ³ TWA (respirable particulate matter, as Mo)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Molybdenum (7439-98-7)	TWA	USA	15 mg/m ³ TWA (total dust)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TWA	USA	"1 mg/m ³ TWA" As Nickel [7440-02-0]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m ³ TWA (inhalable particulate matter)" As Nickel, elemental [7440-02-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m ³ TWA (inhalable particulate matter)" As Nickel, elemental [7440-02-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nickel (7440-02-0)	TWA	USA	"1 mg/m ³ TWA" As Nickel [7440-02-0]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m ³ TWA (inhalable particulate matter)" As Nickel, elemental [7440-02-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nickel (7440-02-0)	TWA	USA	"1 mg/m ³ TWA" As Nickel [7440-02-0]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TWA	USA	"1 mg/m ³ TWA" As Nickel [7440-02-0]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m ³ TWA (inhalable particulate matter)" As Nickel, elemental [7440-02-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m ³ TWA (inhalable particulate matter)" As Nickel, elemental [7440-02-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nickel (7440-02-0)	TWA	USA	"1 mg/m ³ TWA" As Nickel [7440-02-0]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m ³ TWA (inhalable particulate matter)" As Nickel, elemental [7440-02-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Safety Data Sheet

Nickel (7440-02-0)	TWA	USA	"1 mg/m ³ TWA" As Nickel [7440-02-0]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TLV-TWA	USA	1.5 mg/m ³ TWA (inhalable particulate matter)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nickel (7440-02-0)	TWA	USA	1 mg/m ³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m ³ TWA (inhalable particulate matter)" As Nickel, elemental [7440-02-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nickel (7440-02-0)	TWA	USA	"1 mg/m ³ TWA" As Nickel [7440-02-0]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Arsenic (7440-38-2)	TLV-TWA	USA	"0.01 mg/m ³ TWA" As Arsenic, elemental [7440-38-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Arsenic (7440-38-2)	TLV-TWA	USA	"0.01 mg/m ³ TWA" As Arsenic, elemental [7440-38-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Arsenic (7440-38-2)	TLV-TWA	USA	0.01 mg/m ³ TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Arsenic (7440-38-2)	TLV-TWA	USA	"0.01 mg/m ³ TWA (as As)" As Arsenic inorganic compounds [RR-00065-7]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Arsenic (7440-38-2)	TWA	USA	"10 µg/m ³ TWA (as As)" As Arsenic, inorganic compounds [RR-00065-7]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Arsenic (7440-38-2)	PEL	USA	"10 µg/m ³ TWA (See 29 CFR 1910.1018; except Arsine, as As); 5 µg/m ³ Action Level (as As)" As Inorganic arsenic compounds [RR-00065-7]	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Arsenic (7440-38-2)	TLV-TWA	USA	"0.01 mg/m ³ TWA" As Arsenic, elemental [7440-38-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Arsenic (7440-38-2)	TLV-TWA	USA	"0.01 mg/m ³ TWA" As Arsenic, elemental [7440-38-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Safety Data Sheet

Cadmium (7440-43-9)	PEL-Ceiling	USA	0.3 mg/m ³ Ceiling (applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect, fume); 0.6 mg/m ³ Ceiling (applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect, dust)	U.S. - OSHA - Final PELs - Ceiling Limits
Cadmium (7440-43-9)	TWA	USA	5 µg/m ³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Cadmium (7440-43-9)	TLV-TWA	USA	0.01 mg/m ³ TWA; 0.002 mg/m ³ TWA (respirable particulate matter)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Cadmium (7440-43-9)	PEL	USA	5 µg/m ³ TWA (See 29 CFR 1910.1027); 2.5 µg/m ³ Action Level	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Cadmium (7440-43-9)	TLV-TWA	USA	"0.01 mg/m ³ TWA (as Cd); 0.002 mg/m ³ TWA (respirable particulate matter, as Cd)" As Cadmium compounds [RR-00559-4]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Cadmium (7440-43-9)	PEL	USA	"5 µg/m ³ TWA (See 29 CFR 1910.1027, as Cd); 2.5 µg/m ³ Action Level (as Cd)" As Cadmium compounds [RR-00559-4]	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Copper (7440-50-8)	TLV-TWA	USA	"0.2 mg/m ³ TWA (fume)" As Copper [7440-50-8]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Copper (7440-50-8)	TWA	USA	"0.1 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist)" As Copper [7440-50-8]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Copper (7440-50-8)	TWA	USA	"0.1 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist)" As Copper [7440-50-8]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Copper (7440-50-8)	TLV-TWA	USA	"0.2 mg/m ³ TWA (fume)" As Copper [7440-50-8]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Safety Data Sheet

Copper (7440-50-8)	TWA	USA	"0.1 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist)" As Copper [7440-50-8]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Copper (7440-50-8)	TLV-TWA	USA	"0.2 mg/m ³ TWA (fume)" As Copper [7440-50-8]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Copper (7440-50-8)	TLV-TWA	USA	"0.2 mg/m ³ TWA (fume)" As Copper [7440-50-8]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Copper (7440-50-8)	TWA	USA	"0.1 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist)" As Copper [7440-50-8]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Copper (7440-50-8)	TWA	USA	"0.1 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist)" As Copper [7440-50-8]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Copper (7440-50-8)	TLV-TWA	USA	"0.2 mg/m ³ TWA (fume)" As Copper [7440-50-8]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Copper (7440-50-8)	TWA	USA	0.1 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Copper (7440-50-8)	TLV-TWA	USA	0.2 mg/m ³ TWA (fume)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Copper (7440-50-8)	TLV-TWA	USA	"1 mg/m ³ TWA (dust and mist, as Cu)" As Copper compounds [RR-00595-8]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Copper (7440-50-8)	TLV-TWA	USA	"1 mg/m ³ TWA (dust and mist, as Cu)" As Copper compounds [RR-00595-8]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Vanadium (7440-62-2)	PEL-Ceiling	USA	"0.5 mg/m ³ Ceiling (respirable dust, as V ₂ O ₅); 0.1 mg/m ³ Ceiling (fume, as V ₂ O ₅)" As Vanadium [7440-62-2]	U.S. - OSHA - Final PELs - Ceiling Limits
Vanadium (7440-62-2)	PEL-Ceiling	USA	"0.5 mg/m ³ Ceiling (respirable dust, as V ₂ O ₅); 0.1 mg/m ³ Ceiling (fume, as V ₂ O ₅)" As Vanadium [7440-62-2]	U.S. - OSHA - Final PELs - Ceiling Limits
Vanadium (7440-62-2)	PEL-Ceiling	USA	0.5 mg/m ³ Ceiling (respirable dust, as V ₂ O ₅); 0.1 mg/m ³ Ceiling (fume, as V ₂ O ₅)	U.S. - OSHA - Final PELs - Ceiling Limits

Safety Data Sheet

Hydrofluoric Acid (7664-39-3)	TWA	USA	"3 ppm TWA (as F)" As Hydrogen fluoride [7664-39-3]; "2.5 mg/m ³ TWA (as F)" As Fluorides [RR-02792-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Hydrofluoric Acid (7664-39-3)	TLV-Ceiling	USA	"2 ppm Ceiling (as F)" As Hydrogen fluoride [7664-39-3]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrofluoric Acid (7664-39-3)	TLV-TWA	USA	"0.5 ppm TWA (as F)" As Hydrogen fluoride [7664-39-3]; "2.5 mg/m ³ TWA (as F)" As Fluorides [RR-02792-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hydrofluoric Acid (7664-39-3)	TLV-TWA	USA	"0.5 ppm TWA (as F)" As Hydrogen fluoride [7664-39-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hydrofluoric Acid (7664-39-3)	TWA	USA	"3 ppm TWA (as F)" As Hydrogen fluoride [7664-39-3]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Hydrofluoric Acid (7664-39-3)	TLV-Ceiling	USA	"2 ppm Ceiling (as F)" As Hydrogen fluoride [7664-39-3]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrofluoric Acid (7664-39-3)	TLV-TWA	USA	0.5 ppm TWA (as F)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hydrofluoric Acid (7664-39-3)	TLV-Ceiling	USA	2 ppm Ceiling (as F)	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrofluoric Acid (7664-39-3)	TWA	USA	3 ppm TWA (as F)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Hydrofluoric Acid (7664-39-3)	TWA	USA	2.5 mg/m ³ TWA (as F)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Hydrofluoric Acid (7664-39-3)	TLV-TWA	USA	2.5 mg/m ³ TWA (as F)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hydrofluoric Acid (7664-39-3)	TLV-Ceiling	USA	"2 ppm Ceiling (as F)" As Hydrogen fluoride [7664-39-3]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrofluoric Acid (7664-39-3)	TLV-TWA	USA	"0.5 ppm TWA (as F)" As Hydrogen fluoride [7664-39-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hydrofluoric Acid (7664-39-3)	TWA	USA	"3 ppm TWA (as F)" As Hydrogen fluoride [7664-39-3]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

Safety Data Sheet

Hydrofluoric Acid (7664-39-3)	TLV-Ceiling	USA	"2 ppm Ceiling (as F)" As Hydrogen fluoride [7664-39-3]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrofluoric Acid (7664-39-3)	TLV-TWA	USA	"0.5 ppm TWA (as F)" As Hydrogen fluoride [7664-39-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hydrofluoric Acid (7664-39-3)	TWA	USA	"3 ppm TWA (as F)" As Hydrogen fluoride [7664-39-3]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³ TWA" As Nitric acid [7697-37-2]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³ TWA" As Nitric acid [7697-37-2]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-STEL	USA	4 ppm STEL	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-TWA	USA	2 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TWA	USA	2 ppm TWA; 5 mg/m ³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³ TWA" As Nitric acid [7697-37-2]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³ TWA" As Nitric acid [7697-37-2]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

Safety Data Sheet

Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³ TWA" As Nitric acid [7697-37-2]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid [7697-37-2]	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³ TWA" As Nitric acid [7697-37-2]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chromium Nitrate Nonahydrate (7789-12-7)	TWA	USA	"0.5 mg/m ³ TWA (as Cr)" As Chromium(III) compounds [RR-03889-1]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chromium Nitrate Nonahydrate (7789-12-7)	TWA	USA	"0.5 mg/m ³ TWA (as Cr)" As Chromium(III) compounds [RR-03889-1]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chromium Nitrate Nonahydrate (7789-12-7)	TWA	USA	0.5 mg/m ³ TWA (as Cr)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chromium Nitrate Nonahydrate (7789-12-7)	TWA	USA	"0.5 mg/m ³ TWA (as Cr)" As Chromium(III) compounds [RR-03889-1]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chromium Nitrate Nonahydrate (7789-12-7)	TWA	USA	"0.5 mg/m ³ TWA (as Cr)" As Chromium(III) compounds [RR-03889-1]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

8.2. Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

Safety Data Sheet

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Clear, slight color

Physical State: Liquid

Odor: Odorless

Odor Threshold: Data not available.

pH: acidic

Melting/Freezing Point: Approximately 0°C

Initial Boiling Point/Range: Approximately 100°C - Approximately 100°C

Flash Point: Data not available.

Evaporation Rate: Data not available.

Flammability: Data not available.

Flammability/Explosive Limits: Data not available.

Vapor Pressure: Data not available.

Vapor Density: Data not available.

Relative Density: 1.04

Solubility: Miscible

Partition Coefficient: Data not available.

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

Explosive Properties: Data not available.

Oxidizing Properties: Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Keep only in original container. Strong bases, metallic powders.

10.4. Hazardous Decomposition Products

Will not occur.



Safety Data Sheet

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LDLo, Oral, Human: 430 mg/kg (Nitric Acid), details of toxic effects not reported other than lethal dose value.

Skin Corrosion and Irritation:

Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water.). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Serious Eye Damage and Irritation:

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Safety Data Sheet

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Not applicable.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transportation Information

14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Sizes: 100 mL

UN Number: UN3264

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid)

Hazard Class: 8

Packing Group: III

Hazard Label(s):



Safety Data Sheet

14.2. Transportation by Air - International Air Transport Association (IATA)

Sizes: 100 mL

UN Number: UN3264

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid)

Hazard Class: 8

Packing Group: III

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 100 mL

UN Number: UN3264

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)

Hazard Class: 8

Packing Group: III

Hazard Label(s):



SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Lead (CAS # 7439-92-1): "30 µg/m³ Action Level (See 29 CFR 1910.1025); 50 µg/m³ TWA (See 29 CFR 1910.1025)" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "30 µg/m³ Action Level (See 29 CFR 1910.1025, as Pb); 50 µg/m³ TWA (See 29 CFR 1910.1025, as Pb)" As Lead, inorganic compounds [RR-00538-9]

Lead (CAS # 7439-92-1): 30 µg/m³ Action Level (See 29 CFR 1910.1025); 50 µg/m³ TWA (See 29 CFR 1910.1025)

Arsenic (CAS # 7440-38-2): "10 µg/m³ TWA (See 29 CFR 1910.1018, except Arsine, as As); 5 µg/m³ Action Level (See 29 CFR 1910.1018, except Arsine, as As)" As Inorganic arsenic compounds [RR-00065-7]

Cadmium (CAS # 7440-43-9): "5 µg/m³ TWA (See 29 CFR 1910.1027, as Cd); 2.5 µg/m³ Action Level (as Cd)" As Cadmium compounds [RR-00559-4]

Cadmium (CAS # 7440-43-9): 5 µg/m³ TWA (See 29 CFR 1910.1027); 2.5 µg/m³ Action Level



Safety Data Sheet

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Hydrofluoric Acid (CAS # 7664-39-3): "100 lb EPCRA RQ" As Hydrogen fluoride [7664-39-3]

Hydrofluoric Acid (CAS # 7664-39-3): "100 lb TPQ" As Hydrogen fluoride [7664-39-3]

Hydrofluoric Acid (CAS # 7664-39-3): 100 lb EPCRA RQ

Hydrofluoric Acid (CAS # 7664-39-3): 100 lb TPQ

Nitric Acid (CAS # 7697-37-2): "1000 lb EPCRA RQ" As Nitric acid [7697-37-2]

Nitric Acid (CAS # 7697-37-2): "1000 lb TPQ" As Nitric acid [7697-37-2]

Nitric Acid (CAS # 7697-37-2): 1000 lb EPCRA RQ

Nitric Acid (CAS # 7697-37-2): 1000 lb TPQ

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Lead (CAS # 7439-92-1): "10 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$); 4.54 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$)" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): 10 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$); 4.54 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$)

Nickel (CAS # 7440-02-0): "100 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$)" As Nickel [7440-02-0]

Nickel (CAS # 7440-02-0): 100 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$)

Arsenic (CAS # 7440-38-2): "1 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$); 0.454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$)" As Arsenic [7440-38-2]

Arsenic (CAS # 7440-38-2): 1 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$); 0.454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100\ \mu\text{m}$)

Safety Data Sheet

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Lead (CAS # 7439-92-1): "100 lb RT (this lower threshold does not apply to lead when it is contained in stainless steel, brass or bronze alloy)" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "100 lb RT" As Lead compounds [RR-00630-4]

Lead (CAS # 7439-92-1): "not eligible for the de minimis exemption" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "not eligible for the de minimis exemption, listed under Chemical Category N420" As Inorganic lead compounds [RR-00538-4]
"not eligible for the de minimis exemption" As Lead compounds [RR-00630-4]

Lead (CAS # 7439-92-1): 100 lb RT (this lower threshold does not apply to lead when it is contained in stainless steel, brass or bronze alloy)

Lead (CAS # 7439-92-1): not eligible for the de minimis exemption

Nickel (CAS # 7440-02-0): "0.1 % de minimis concentration (includes any unique chemical substance that contains Nickel as part of that chemical's infrastructure, listed under Chemical Category N495)" As Nickel compounds [RR-00800-4]

Nickel (CAS # 7440-02-0): "0.1 % de minimis concentration" As Nickel [7440-02-0]

Nickel (CAS # 7440-02-0): 0.1 % de minimis concentration

Arsenic (CAS # 7440-38-2): "0.1 % de minimis concentration (includes any unique chemical substance that contains Arsenic as part of that chemical's infrastructure, listed under Chemical Category N020)" As Arsenic, inorganic compounds [RR-00065-7]

Arsenic (CAS # 7440-38-2): "0.1 % de minimis concentration" As Arsenic [7440-38-2]

Arsenic (CAS # 7440-38-2): 0.1 % de minimis concentration

Cadmium (CAS # 7440-43-9): "0.1 % de minimis concentration (includes any unique chemical substance that contains Cadmium as part of that chemical's infrastructure, listed under Chemical Category N078)" As Cadmium compounds [RR-00559-4]

Cadmium (CAS # 7440-43-9): 0.1 % de minimis concentration

Copper (CAS # 7440-50-8): "1.0 % de minimis concentration (includes any unique chemical substance that contains Copper as part of that chemical's infrastructure except for CAS numbers 147-14-8, 1

15.5. Massachusetts Right-to-Know Substance List

Lead (CAS # 7439-92-1): "Teratogen" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): Teratogen

Molybdenum (CAS # 7439-98-7): Present

Nickel (CAS # 7440-02-0): "Carcinogen; Extraordinarily hazardous" As Nickel [7440-02-0]

Nickel (CAS # 7440-02-0): Carcinogen; Extraordinarily hazardous

Arsenic (CAS # 7440-38-2): "Carcinogen; Extraordinarily hazardous" As Arsenic [7440-38-2]

Arsenic (CAS # 7440-38-2): Carcinogen; Extraordinarily hazardous

Cadmium (CAS # 7440-43-9): Carcinogen; Extraordinarily hazardous

Copper (CAS # 7440-50-8): "Present" As Copper [7440-50-8]

Copper (CAS # 7440-50-8): Present

Vanadium (CAS # 7440-62-2): "Present (dust and fume)" As Vanadium [7440-62-2]

Vanadium (CAS # 7440-62-2): Present (dust and fume)

Hydrofluoric Acid (CAS # 7664-39-3): "Extraordinarily hazardous" As Hydrofluoric acid [7664-39-3]

Hydrofluoric Acid (CAS # 7664-39-3): Extraordinarily hazardous

Nitric Acid (CAS # 7697-37-2): "Extraordinarily hazardous" As Nitric acid [7697-37-2]

Nitric Acid (CAS # 7697-37-2): Extraordinarily hazardous



Safety Data Sheet

15.6. Pennsylvania Right-to-Know Hazardous Substances

Lead (CAS # 7439-92-1): "Environmental hazard" As Lead [7439-92-1]
Lead (CAS # 7439-92-1): "Environmental hazard" As Lead compounds [RR-00630-4]
Lead (CAS # 7439-92-1): "Present" As Lead [7439-92-1]
Lead (CAS # 7439-92-1): "Present" As Lead compounds [RR-00630-4]
Lead (CAS # 7439-92-1): Environmental hazard
Lead (CAS # 7439-92-1): Present
Molybdenum (CAS # 7439-98-7): Present
Nickel (CAS # 7440-02-0): "Environmental hazard" As Nickel compounds [RR-00800-4]
Nickel (CAS # 7440-02-0): "Environmental hazard; Special hazardous substance" As Nickel [7440-02-0]
Nickel (CAS # 7440-02-0): "Present" As Nickel [7440-02-0]
Nickel (CAS # 7440-02-0): "Present" As Nickel compounds [RR-00800-4]
Nickel (CAS # 7440-02-0): Environmental hazard
Nickel (CAS # 7440-02-0): Environmental hazard; Special hazardous substance
Nickel (CAS # 7440-02-0): Present
Arsenic (CAS # 7440-38-2): "Environmental hazard (including inorganic); Special hazardous substance" As Arsenic [7440-38-2]
Arsenic (CAS # 7440-38-2): "Environmental hazard" As Arsenic compounds [RR-00625-7]
Arsenic (CAS # 7440-38-2): "Present (including inorganic)" As Arsenic [7440-38-2]
Arsenic (CAS # 7440-38-2): "Present" As Arsenic [7440-38-2]
Arsenic (CAS # 7440-38-2): "Present" As Arsenic compounds [RR-00625-7]
Arsenic (CAS # 7440-38-2): Environmental hazard (including inorganic); Special hazardous substance
Arsenic (CAS # 7440-38-2): Present
Arsenic (CAS # 7440-38-2): Present (including inorganic)
Cadmium (CAS # 7440-43-9): "Environmental hazard" As Cadmium compounds [RR-00559-4]
Cadmium (CAS # 7440-43-9): "Present" As Cadmium compounds [RR-00559-4]
Cadmium (CAS # 7440-43-9): Environmental hazard (dust; fume; metal; powder); Special hazardous substance (metal; powder)
Cadmium (CAS # 7440-43-9): Present (dust; fume; metal; powder)
Cadmium (CAS # 7440-43-9): Present (metal; powder)
Copper (CAS # 7440-50-8): "Environmental hazard (dust; fume; metal)" As Copper [7440-50-8]
Copper (CAS # 7440-50-8): "Environmental hazard" As Copper com

Safety Data Sheet

15.7. New Jersey Worker and Community Right-to-Know Components

Lead (CAS # 7439-92-1): "carcinogen" As Lead compounds [RR-00630-4]

Lead (CAS # 7439-92-1): "carcinogen; teratogen" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "SN 1096 500 lb TPQ" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "sn 1096" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "SN 2266 500 lb TPQ (Category Code N420. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Lead compounds [RR-00630-4]

Lead (CAS # 7439-92-1): "sn 2266" As Lead compounds [RR-00630-4]

Lead (CAS # 7439-92-1): carcinogen; teratogen

Lead (CAS # 7439-92-1): sn 1096

Lead (CAS # 7439-92-1): SN 1096 500 lb TPQ

Molybdenum (CAS # 7439-98-7): sn 1309

Nickel (CAS # 7440-02-0): "carcinogen" As Nickel [7440-02-0]

Nickel (CAS # 7440-02-0): "carcinogen" As Nickel compounds [RR-00800-4]

Nickel (CAS # 7440-02-0): "SN 1341 500 lb TPQ" As Nickel [7440-02-0]

Nickel (CAS # 7440-02-0): "sn 1341" As Nickel [7440-02-0]

Nickel (CAS # 7440-02-0): "SN 2366 500 lb TPQ (Category Code N495. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Nickel compounds [RR-00800-4]

Nickel (CAS # 7440-02-0): "sn 2366" As Nickel compounds [RR-00800-4]

Nickel (CAS # 7440-02-0): carcinogen

Nickel (CAS # 7440-02-0): sn 1341

Nickel (CAS # 7440-02-0): SN 1341 500 lb TPQ

Arsenic (CAS # 7440-38-2): "carcinogen; teratogen" As Arsenic [7440-38-2]

Arsenic (CAS # 7440-38-2): "SN 0152 500 lb TPQ" As Arsenic [7440-38-2]

Arsenic (CAS # 7440-38-2): "sn 0152" As Arsenic [7440-38-2]

Arsenic (CAS # 7440-38-2): "SN 2138 500 lb TPQ (Category Code N020. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Arsenic compounds [RR-00625-7]

Arsenic (CAS # 7440-38-2): "sn 2138" As Arsenic compounds [RR-00625-7]

Arsenic (CAS # 7440-38-2): carcinogen; teratogen

Arsenic (CAS # 7440-38-2): sn 0152

Arsenic (CAS # 7440-38-2): SN 0152 500 lb TPQ

Cadmium (CAS # 7440-43-9): "carcinogen" As Cadmium compounds



Safety Data Sheet

15.8. California Proposition 65

Lead (CAS # 7439-92-1): "15 µg/day NSRL (oral)" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "carcinogen, 10/1/1992" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "carcinogen, 10/1/1992" As Lead compounds [RR-00630-4]

Lead (CAS # 7439-92-1): "developmental toxicity, 2/27/1987" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "female reproductive toxicity 2/27/87" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): "male reproductive toxicity, 2/27/87" As Lead [7439-92-1]

Lead (CAS # 7439-92-1): 15 µg/day NSRL (oral)

Lead (CAS # 7439-92-1): carcinogen, 10/1/1992

Lead (CAS # 7439-92-1): developmental toxicity, 2/27/1987

Lead (CAS # 7439-92-1): female reproductive toxicity 2/27/87

Lead (CAS # 7439-92-1): male reproductive toxicity, 2/27/87

Nickel (CAS # 7440-02-0): "carcinogen, 10/1/1989 (metallic)" As Nickel [7440-02-0]

Nickel (CAS # 7440-02-0): "carcinogen, 5/7/2004" As Nickel compounds [RR-00800-4]

Nickel (CAS # 7440-02-0): carcinogen, 10/1/1989 (metallic)

Arsenic (CAS # 7440-38-2): "0.06 µg/day NSRL (inhalation); 10 µg/day NSRL (except inhalation)" As Arsenic [7440-38-2]

Arsenic (CAS # 7440-38-2): "0.06 µg/day NSRL (inhalation, listed under Arsenic); 10 µg/day NSRL (except inhalation, listed under Arsenic)" As Arsenic inorganic compounds [RR-00065-7]

Arsenic (CAS # 7440-38-2): "carcinogen, 2/27/1987" As Arsenic, inorganic compounds [RR-00065-7]

Arsenic (CAS # 7440-38-2): 0.06 µg/day NSRL (inhalation); 10 µg/day NSRL (except inhalation)

Cadmium (CAS # 7440-43-9): "carcinogen, 10/1/1987" As Cadmium compounds [RR-00559-4]

Cadmium (CAS # 7440-43-9): 0.05 µg/day NSRL (inhalation)

Cadmium (CAS # 7440-43-9): carcinogen, 10/1/1987

Cadmium (CAS # 7440-43-9): developmental toxicity, 5/1/1997

Cadmium (CAS # 7440-43-9): male reproductive toxicity, 5/1/97



Safety Data Sheet

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Lead (CAS # 7439-92-1): "Present" As Lead [7439-92-1] (DSL)
Lead (CAS # 7439-92-1): Present (DSL)
Molybdenum (CAS # 7439-98-7): Present (DSL)
Nickel (CAS # 7440-02-0): "Present" As Nickel [7440-02-0] (DSL)
Nickel (CAS # 7440-02-0): Present (DSL)
Arsenic (CAS # 7440-38-2): "Present" As Arsenic [7440-38-2] (DSL)
Arsenic (CAS # 7440-38-2): Present (DSL)
Cadmium (CAS # 7440-43-9): Present (DSL)
Copper (CAS # 7440-50-8): "Present" As Copper [7440-50-8] (DSL)
Copper (CAS # 7440-50-8): Present (DSL)
Vanadium (CAS # 7440-62-2): "Present" As Vanadium [7440-62-2] (DSL)
Vanadium (CAS # 7440-62-2): Present (DSL)
Hydrofluoric Acid (CAS # 7664-39-3): "Present" As Hydrogen fluoride [7664-39-3] (DSL)
Hydrofluoric Acid (CAS # 7664-39-3): Present (DSL)
Nitric Acid (CAS # 7697-37-2): "Present" As Nitric acid [7697-37-2] (DSL)
Nitric Acid (CAS # 7697-37-2): Present (DSL)
Water (CAS # 7732-18-5): "Present" As Water [7732-18-5] (DSL)
Water (CAS # 7732-18-5): Present (DSL)
Chromium Nitrate Nonahydrate (CAS # 7789-02-8): "Present" As Chromium nitrate [13548-38-4] (DSL)
Chromium Nitrate Nonahydrate (CAS # 7789-02-8): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.



Safety Data Sheet

Lead (CAS # 7439-92-1): "Present (ACTIVE)" As Lead [7439-92-1]
Lead (CAS # 7439-92-1): Present (ACTIVE)
Molybdenum (CAS # 7439-98-7): Present (ACTIVE)
Nickel (CAS # 7440-02-0): "Present (ACTIVE)" As Nickel [7440-02-0]
Nickel (CAS # 7440-02-0): Present (ACTIVE)
Arsenic (CAS # 7440-38-2): "Present (ACTIVE)" As Arsenic [7440-38-2]
Arsenic (CAS # 7440-38-2): Present (ACTIVE)
Cadmium (CAS # 7440-43-9): Present (ACTIVE)
Copper (CAS # 7440-50-8): "Present (ACTIVE)" As Copper [7440-50-8]
Copper (CAS # 7440-50-8): Present (ACTIVE)
Vanadium (CAS # 7440-62-2): "Present (ACTIVE)" As Vanadium [7440-62-2]
Vanadium (CAS # 7440-62-2): Present (ACTIVE)
Hydrofluoric Acid (CAS # 7664-39-3): "Present (ACTIVE)" As Hydrofluoric acid [7664-39-3]
Hydrofluoric Acid (CAS # 7664-39-3): Present (ACTIVE)
Nitric Acid (CAS # 7697-37-2): "Present (ACTIVE)" As Nitric acid [7697-37-2]
Nitric Acid (CAS # 7697-37-2): Present (ACTIVE)
Water (CAS # 7732-18-5): "Present (ACTIVE)" As Water [7732-18-5]
Water (CAS # 7732-18-5): Present (ACTIVE)
Chromium Nitrate Nonahydrate (CAS # 7789-02-8): "Present (ACTIVE)" As Nitric acid, chromium(3+) salt (3:1) [13548-38-4]
Chromium Nitrate Nonahydrate (CAS # 7789-02-8): Present (ACTIVE)

Safety Data Sheet

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Lead (CAS # 7439-92-1): "231-100-4" As Lead [7439-92-1]
Lead (CAS # 7439-92-1): 231-100-4
Molybdenum (CAS # 7439-98-7): 231-107-2
Nickel (CAS # 7440-02-0): "231-111-4" As Nickel [7440-02-0]
Nickel (CAS # 7440-02-0): 231-111-4
Arsenic (CAS # 7440-38-2): "231-148-6" As Arsenic [7440-38-2]
Arsenic (CAS # 7440-38-2): 231-148-6
Cadmium (CAS # 7440-43-9): 231-152-8
Copper (CAS # 7440-50-8): "231-159-6" As Copper [7440-50-8]
Copper (CAS # 7440-50-8): 231-159-6
Vanadium (CAS # 7440-62-2): "231-171-1" As Vanadium [7440-62-2]
Vanadium (CAS # 7440-62-2): 231-171-1
Hydrofluoric Acid (CAS # 7664-39-3): "231-634-8" As Hydrogen fluoride [7664-39-3]
Hydrofluoric Acid (CAS # 7664-39-3): 231-634-8
Nitric Acid (CAS # 7697-37-2): "231-714-2" As Nitric acid [7697-37-2]
Nitric Acid (CAS # 7697-37-2): 231-714-2
Water (CAS # 7732-18-5): "231-791-2" As Water [7732-18-5]
Water (CAS # 7732-18-5): 231-791-2
Chromium Nitrate Nonahydrate (CAS # 7789-02-8): "236-921-1" As Chromium trinitrate [13548-38-4]
Chromium Nitrate Nonahydrate (CAS # 7789-02-8): 236-921-1

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

May be corrosive to metals. Causes severe skin burns and eye damage.

Keep only in original container. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water.). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Store locked up. Store in corrosive resistant container with a resistant inner liner.

Dispose of contents in accordance with local, state, federal and international regulations.

Safety Data Sheet

16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

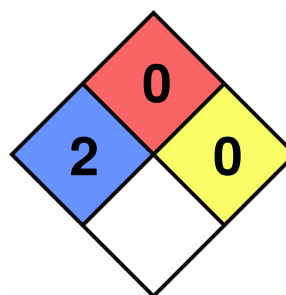
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 2
Flammability: 0
Reactivity: 0
Special Hazard:



16.4. Document Revision

Last Revision Date: 2025-02-02

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.