

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: ICP-MS Blend, 8 Elements at 20 ppm

Product Number: RICPMS80

Other Identifying Product Numbers: RICPMS80-500B

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

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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 immediately).
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.

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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	97.08
Nitric Acid	HNO ₃	63.01 g/mol	7697-37-2	2.89
Chromium Nitrate Nonahydrate	Cr(NO ₃) ₃ ·9H ₂ O	238.01 g/mol	7789-02-8	< 0.1
Barium Nitrate	Ba(NO ₃) ₂	261.33 g/mol	10022-31-8	< 0.1
Selenium	Se	78.95 g/mol	7782-49-2	< 0.1
Copper	Cu	63.54 g/mol	7440-50-8	< 0.1
Silver	Ag	107.86 g/mol	7440-22-4	< 0.1
Nickel	Ni	58.69 g/mol	7440-02-0	< 0.1
Manganese	Mn	54.93 g/mol	7439-96-5	< 0.1
Lead	Pb	207.2 g/mol	7439-92-1	< 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! Mildly corrosive liquid. Contains low levels of a known carcinogen. 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.

4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). 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 a physician if necessary.

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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. May react explosively with combustible organic or readily oxidizable materials such as: alcohols, turpentine, charcoal, organic refuse, metal powder, hydrogen sulfide, etc.

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.

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SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Barium Nitrate (10022-31-8)	TLV-TWA	USA	"0.5 mg/m ³ TWA (as Ba)" As Barium soluble compounds [RR-00049-7]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Barium Nitrate (10022-31-8)	TWA	USA	"0.5 mg/m ³ TWA (regulated under CAS 7440-39-3, as Ba)" As Barium, soluble compounds [RR-00049-7]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Barium Nitrate (10022-31-8)	TLV-TWA	USA	0.5 mg/m ³ TWA (as Ba)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Barium Nitrate (10022-31-8)	TWA	USA	0.5 mg/m ³ TWA (regulated under CAS 7440-39-3, as Ba)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Lead (7439-92-1)	PEL	USA	"30 µg/m ³ Action Level (See 29 CFR 1910.1025); 50 µg/m ³ TWA" As Lead [7439-92-1]	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Lead (7439-92-1)	TLV-TWA	USA	"0.05 mg/m ³ TWA" As Lead [7439-92-1]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead (7439-92-1)	TWA	USA	"50 µg/m ³ 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/m ³ TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead (7439-92-1)	TWA	USA	50 µg/m ³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Lead (7439-92-1)	PEL	USA	30 µg/m ³ Action Level (See 29 CFR 1910.1025); 50 µg/m ³ TWA	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Lead (7439-92-1)	PEL	USA	"30 µg/m ³ Action Level (See 29 CFR 1910.1025, as Pb); 50 µg/m ³ 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/m ³ TWA (as Pb)" As Lead inorganic compounds [RR-00538-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

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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)
Manganese (7439-96-5)	TLV-TWA	USA	"0.02 mg/m³ TWA (respirable particulate matter); 0.1 mg/m³ TWA (inhalable particulate matter)" As Manganese, elemental [7439-96-5]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Manganese (7439-96-5)	PEL-Ceiling	USA	"5 mg/m³ Ceiling (fume)" As Manganese [7439-96-5]	U.S. - OSHA - Final PELs - Ceiling Limits
Manganese (7439-96-5)	PEL-Ceiling	USA	"5 mg/m³ Ceiling (fume)" As Manganese [7439-96-5]	U.S. - OSHA - Final PELs - Ceiling Limits
Manganese (7439-96-5)	TLV-TWA	USA	"0.02 mg/m³ TWA (respirable particulate matter); 0.1 mg/m³ TWA (inhalable particulate matter)" As Manganese, elemental [7439-96-5]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Manganese (7439-96-5)	TLV-TWA	USA	"0.02 mg/m³ TWA (respirable particulate matter); 0.1 mg/m³ TWA (inhalable particulate matter)" As Manganese, elemental [7439-96-5]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Manganese (7439-96-5)	PEL-Ceiling	USA	"5 mg/m³ Ceiling (fume)" As Manganese [7439-96-5]	U.S. - OSHA - Final PELs - Ceiling Limits
Manganese (7439-96-5)	TLV-TWA	USA	0.02 mg/m³ TWA (respirable particulate matter); 0.1 mg/m³ TWA (inhalable particulate matter)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Manganese (7439-96-5)	PEL-Ceiling	USA	5 mg/m³ Ceiling (fume)	U.S. - OSHA - Final PELs - Ceiling Limits
Manganese (7439-96-5)	TLV-TWA	USA	"0.02 mg/m³ TWA (respirable particulate matter); 0.1 mg/m³ TWA (inhalable particulate matter)" As Manganese, elemental [7439-96-5]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Manganese (7439-96-5)	PEL-Ceiling	USA	"5 mg/m³ Ceiling (fume)" As Manganese [7439-96-5]	U.S. - OSHA - Final PELs - Ceiling Limits

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Manganese (7439-96-5)	PEL-Ceiling	USA	"5 mg/m ³ Ceiling (fume)" As Manganese [7439-96-5]	U.S. - OSHA - Final PELs - Ceiling Limits
Manganese (7439-96-5)	TLV-TWA	USA	"0.02 mg/m ³ TWA (respirable particulate matter); 0.1 mg/m ³ TWA (inhalable particulate matter)" As Manganese, elemental [7439-96-5]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Manganese (7439-96-5)	PEL-Ceiling	USA	"5 mg/m ³ Ceiling (as Mn)" As Manganese compounds [RR-00602-0]	U.S. - OSHA - Final PELs - Ceiling Limits
Manganese (7439-96-5)	TLV-TWA	USA	0.02 mg/m ³ TWA (respirable particulate matter, as Mn); 0.1 mg/m ³ TWA (inhalable particulate matter, as Mn)	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)	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)

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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)	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)
Silver (7440-22-4)	TWA	USA	"0.01 mg/m ³ TWA" As Silver [7440-22-4]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Silver (7440-22-4)	TLV-TWA	USA	"0.1 mg/m ³ TWA (dust and fume)" As Silver [7440-22-4]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Silver (7440-22-4)	TWA	USA	"0.01 mg/m ³ TWA" As Silver [7440-22-4]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Silver (7440-22-4)	TLV-TWA	USA	"0.1 mg/m ³ TWA (dust and fume)" As Silver [7440-22-4]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Silver (7440-22-4)	TLV-TWA	USA	"0.1 mg/m ³ TWA (dust and fume)" As Silver [7440-22-4]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Silver (7440-22-4)	TWA	USA	"0.01 mg/m ³ TWA" As Silver [7440-22-4]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Silver (7440-22-4)	TWA	USA	0.01 mg/m ³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Silver (7440-22-4)	TLV-TWA	USA	0.1 mg/m ³ TWA (dust and fume)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Silver (7440-22-4)	TWA	USA	"0.01 mg/m ³ TWA" As Silver [7440-22-4]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

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Silver (7440-22-4)	TLV-TWA	USA	"0.1 mg/m ³ TWA (dust and fume)" As Silver [7440-22-4]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Silver (7440-22-4)	TWA	USA	"0.01 mg/m ³ TWA" As Silver [7440-22-4]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Silver (7440-22-4)	TLV-TWA	USA	"0.1 mg/m ³ TWA (dust and fume)" As Silver [7440-22-4]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Silver (7440-22-4)	TWA	USA	"0.01 mg/m ³ TWA" As Silver [7440-22-4]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Silver (7440-22-4)	TLV-TWA	USA	"0.1 mg/m ³ TWA (dust and fume)" As Silver [7440-22-4]	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)" 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)

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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)
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)
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)

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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)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	0.2 mg/m ³ TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

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Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA" As Selenium [7782-49-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TLV-TWA	USA	"0.2 mg/m ³ TWA (as Se)" As Selenium compounds [RR-00612-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Selenium (7782-49-2)	TWA	USA	"0.2 mg/m ³ TWA (as Se)" As Selenium compounds [RR-00612-2]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chromium Nitrate Nonahydrate (7789-1 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 (7789-1 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 (7789-1 TWA		USA	0.5 mg/m ³ TWA (as Cr)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chromium Nitrate Nonahydrate (7789-1 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 (7789-1 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.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Colorless to blue-green liquid

Physical State: Liquid

Odor: Data not available.

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: 1.02

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, Carbides, Hydrogen Sulfide, Turpentine and combustible organics.

10.4. Hazardous Decomposition Products

Will not occur.



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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. Nickel is investigated as a tumorigen.

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 immediately). 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.

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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: 500 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):



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

Sizes: 500 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: 500 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)

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

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

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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 $>100\text{ }\mu\text{m}$); 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 $>100\text{ }\mu\text{m}$)" 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 $>100\text{ }\mu\text{m}$); 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 $>100\text{ }\mu\text{m}$)

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 $>100\text{ }\mu\text{m}$); 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 $>100\text{ }\mu\text{m}$)" 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 $>100\text{ }\mu\text{m}$); 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 $>100\text{ }\mu\text{m}$)

Silver (CAS # 7440-22-4): "1000 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 $>100\text{ }\mu\text{m}$); 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 $>100\text{ }\mu\text{m}$)" As Silver [7440-22-4]

Silver (CAS # 7440-22-4): 1 lb final RQ; 0.454 kg final RQ

Silver (CAS # 7440-22-4): 1000 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 $>100\text{ }\mu\text{m}$); 454 kg final RQ (no reporting of rele

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

Barium Nitrate (CAS # 10022-31-8): "1.0 % de minimis concentration (includes any unique chemical substance that contains Barium as part of that chemical's infrastructure except for Barium sulfate CAS 7727-43-7, listed under Chemical Category N040)" As Barium compounds [RR-00555-0]

Barium Nitrate (CAS # 10022-31-8): "1.0 % de minimis concentration (includes any unique chemical substance that contains Barium as part of that chemical's infrastructure except for Barium sulfate CAS 7727-43-7, listed under Chemical Category N040)" As Barium compounds [RR-00555-0];

"1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)" As Nitrate compounds, water dissociable [RR-03804-0]

Barium Nitrate (CAS # 10022-31-8): 1.0 % de minimis concentration (includes any unique chemical substance that contains Barium as part of that chemical's infrastructure except for Barium sulfate CAS 7727-43-7, listed under Chemical Category N040)

Barium Nitrate (CAS # 10022-31-8): 1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)

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-00538-0]
"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

Manganese (CAS # 7439-96-5): "1.0 % de minimis concentration (includes any unique chemical substance that contains Manganese



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15.5. Massachusetts Right-to-Know Substance List

Barium Nitrate (CAS # 10022-31-8): "Present" As Barium nitrate [10022-31-8]

Barium Nitrate (CAS # 10022-31-8): Present

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

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

Manganese (CAS # 7439-96-5): "Present" As Manganese [7439-96-5]

Manganese (CAS # 7439-96-5): Present

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

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

Silver (CAS # 7440-22-4): "Present" As Silver [7440-22-4]

Silver (CAS # 7440-22-4): Present

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

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

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

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

Selenium (CAS # 7782-49-2): "Present" As Selenium [7782-49-2]

Selenium (CAS # 7782-49-2): Present



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15.6. Pennsylvania Right-to-Know Hazardous Substances

Barium Nitrate (CAS # 10022-31-8): "Environmental hazard" As Barium compounds [RR-00555-0]

Barium Nitrate (CAS # 10022-31-8): "Environmental hazard" As Nitric acid, barium salt [10022-31-8]

Barium Nitrate (CAS # 10022-31-8): "Present" As Barium compounds [RR-00555-0]

Barium Nitrate (CAS # 10022-31-8): "Present" As Nitric acid, barium salt [10022-31-8]

Barium Nitrate (CAS # 10022-31-8): Environmental hazard

Barium Nitrate (CAS # 10022-31-8): Present

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

Manganese (CAS # 7439-96-5): "Environmental hazard" As Manganese [7439-96-5]

Manganese (CAS # 7439-96-5): "Environmental hazard" As Manganese compounds [RR-00602-0]

Manganese (CAS # 7439-96-5): "Present" As Manganese [7439-96-5]

Manganese (CAS # 7439-96-5): "Present" As Manganese compounds [RR-00602-0]

Manganese (CAS # 7439-96-5): Environmental hazard

Manganese (CAS # 7439-96-5): 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

Silver (CAS # 7440-22-4): "Environmental hazard" As Silver [7440-22-4]

Silver (CAS # 7440-22-4): "Present" As Silver [7440-22-4]

Silver (CAS # 7440-22-4): Environmental hazard

Silver (CAS # 7440-22-4): Present

Copper (CAS # 7440-50-8): "Environmental hazard (dust; fume; metal)" As Copper [7440-50-8]

Copper (CAS # 7440-50-8): "Environmental hazard"

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

Barium Nitrate (CAS # 10022-31-8): "sn 0186" As Barium nitrate [10022-31-8]

Barium Nitrate (CAS # 10022-31-8): "SN 2146 500 lb TPQ (except Barium sulfate CAS number 7727-43-7, Category Code N040. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Barium compounds [RR-00555-0]

Barium Nitrate (CAS # 10022-31-8): "SN 2146 500 lb TPQ (except Barium sulfate CAS number 7727-43-7, Category Code N040. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Barium compounds [RR-00555-0];

"SN 3722 500 lb TPQ (water dissociable, Category Code N511)" As Nitrate compounds [RR-01770-9]

Barium Nitrate (CAS # 10022-31-8): "sn 2146" As Barium compounds [RR-00555-0]

Barium Nitrate (CAS # 10022-31-8): "SN 3722 500 lb TPQ (water dissociable, Category Code N511)" As Nitrate compounds [RR-01770-9]

Barium Nitrate (CAS # 10022-31-8): "sn 3722" As Nitrate compounds [RR-01770-9]

Barium Nitrate (CAS # 10022-31-8): sn 0186

Barium Nitrate (CAS # 10022-31-8): sn 2146

Barium Nitrate (CAS # 10022-31-8): SN 2146 500 lb TPQ (except Barium sulfate CAS number 7727-43-7, Category Code N040. Includes any unique chemical substance that contains the named metal as part of that chemical structure)

Barium Nitrate (CAS # 10022-31-8): sn 3722

Barium Nitrate (CAS # 10022-31-8): SN 3722 500 lb TPQ (water dissociable, Category Code N511)

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 (C

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)



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

Barium Nitrate (CAS # 10022-31-8): "Present" As Barium nitrate [10022-31-8] (DSL)

Barium Nitrate (CAS # 10022-31-8): Present (DSL)

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

Lead (CAS # 7439-92-1): Present (DSL)

Manganese (CAS # 7439-96-5): "Present" As Manganese [7439-96-5] (DSL)

Manganese (CAS # 7439-96-5): Present (DSL)

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

Nickel (CAS # 7440-02-0): Present (DSL)

Silver (CAS # 7440-22-4): "Present" As Silver [7440-22-4] (DSL)

Silver (CAS # 7440-22-4): Present (DSL)

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

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

Selenium (CAS # 7782-49-2): "Present" As Selenium [7782-49-2] (DSL)

Selenium (CAS # 7782-49-2): 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.



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Barium Nitrate (CAS # 10022-31-8): "Present (ACTIVE)" As Nitric acid, barium salt (2:1) [10022-31-8]
Barium Nitrate (CAS # 10022-31-8): Present (ACTIVE)
Lead (CAS # 7439-92-1): "Present (ACTIVE)" As Lead [7439-92-1]
Lead (CAS # 7439-92-1): Present (ACTIVE)
Manganese (CAS # 7439-96-5): "Present (ACTIVE)" As Manganese [7439-96-5]
Manganese (CAS # 7439-96-5): Present (ACTIVE)
Nickel (CAS # 7440-02-0): "Present (ACTIVE)" As Nickel [7440-02-0]
Nickel (CAS # 7440-02-0): Present (ACTIVE)
Silver (CAS # 7440-22-4): "Present (ACTIVE)" As Silver [7440-22-4]
Silver (CAS # 7440-22-4): Present (ACTIVE)
Copper (CAS # 7440-50-8): "Present (ACTIVE)" As Copper [7440-50-8]
Copper (CAS # 7440-50-8): 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)
Selenium (CAS # 7782-49-2): "Present (ACTIVE)" As Selenium [7782-49-2]
Selenium (CAS # 7782-49-2): 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)

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

Barium Nitrate (CAS # 10022-31-8): "233-020-5" As Barium nitrate [10022-31-8]
Barium Nitrate (CAS # 10022-31-8): 233-020-5
Lead (CAS # 7439-92-1): "231-100-4" As Lead [7439-92-1]
Lead (CAS # 7439-92-1): 231-100-4
Manganese (CAS # 7439-96-5): "231-105-1" As Manganese [7439-96-5]
Manganese (CAS # 7439-96-5): 231-105-1
Nickel (CAS # 7440-02-0): "231-111-4" As Nickel [7440-02-0]
Nickel (CAS # 7440-02-0): 231-111-4
Silver (CAS # 7440-22-4): "231-131-3" As Silver [7440-22-4]
Silver (CAS # 7440-22-4): 231-131-3
Copper (CAS # 7440-50-8): "231-159-6" As Copper [7440-50-8]
Copper (CAS # 7440-50-8): 231-159-6
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
Selenium (CAS # 7782-49-2): "231-957-4" As Selenium [7782-49-2]
Selenium (CAS # 7782-49-2): 231-957-4
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 immediately). 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.

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16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

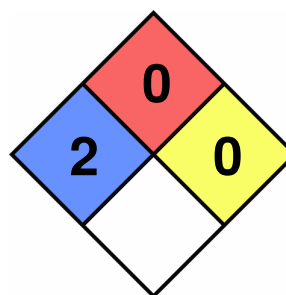
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

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.