RICCA CHEMICAL COMPANY®

Safety Data Sheet

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: VeriSpec® Multi-Element Environmental Standard 26
100 ppm: Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Sr, Ti,

Product Number: RV010836

Other Identifying Product Numbers: RV010836-100N

1.2. Recommended Use and Restrictions on Use

Calibration Standard

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 hr)

CHEMTREC (USA) 800-424-9300
CHEMTREC (International) 1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

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

Hazard Class	Category	Hazard Statement	Precautionary Statements
Skin Corrosion / Irritation	Category 1A	H314	P260, P264, P280, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P321, P305+P351+P338, P405, P501
Skin Sensitizer	Category 1	H317	P261, P272, P280, P302+P352, P332+P313, P321, P363, P501
Carcinogenicity	Category 1B	H350	P201, P202, P280, P308+P313, P405, P501
Corrosive to Metals	Category 1	H290	P234, P390, P406
Hazardous to the Aquatic Environment (Acute)	Category 2	H401	P273, P501
Hazardous to the Aquatic Environment (Chronic)	Category 3	H402	P273, P501

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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.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.

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Precautionary Statements:

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe fumes, mist, vapors, or spray.
P261	Avoid breathing fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
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.
P308+P313	IF exposed or concerned: Get medical attention.
P310	Immediately call a POISON CENTER or physician.
P321	Specific treatment (Wash areas of contact with water immediately).
P332+P313	If skin irritation occurs: Get medical attention.
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.

2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

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_2O	18.01 g/mol	7732-18-5	93.85%
Nitric Acid	HNO_3	63.01 g/mol	7697-37-2	5.00%
Hydrofluoric Acid	HF	20.00 g/mol	7664-39-3	0.20%
Beryllium Nitrate	$Be(NO_3)_2$	133.02 g/mol	13597-99-4	0.15%
Aluminum Nitrate	$Al(NO_3)_3$	212.99 g/mol	13473-90-0	0.14%
Magnesium Nitrate	$Mg(NO_3)_2$	148.31 g/mol	10377-60-3	0.06%
Chromium (III) Nitrate	$Cr(NO_3)_3$	238.01 g/mol	13548-38-4	0.05%
Ferric Nitrate	$Fe(NO_3)_3$	241.85 g/mol	10421-48-4	0.04%
Ammonium Hexafluorotitanate	$(NH_4)_2TiF_6$	197.93 g/mol	16962-40-6	0.04%
Calcium Nitrate	$Ca(NO_3)_2$	164.08 g/mol	10124-37-5	0.04%
Sodium Nitrate	$NaNO_3$	84.99 g/mol	7631-99-4	0.04%
Manganese Nitrate	$Mn(NO_3)_2$	178.94 g/mol	10377-66-9	0.03%
Nickel (II) Nitrate	$Ni(NO_3)_2$	182.70 g/mol	13138-45-9	0.03%
Cobalt (II) Nitrate	$Co(NO_3)_2$	182.94 g/mol	10141-05-6	0.03%
Cupric Nitrate	$Cu(NO_3)_2{\cdot}xH_2O$	251.10 g/mol	3251-23-8	0.03%
Zinc Nitrate	$Zn(NO_3)_2$	189.41 g/mol	7779-88-6	0.03%
Potassium Nitrate	KNO_3	101.10 g/mol	7757-79-1	0.03%
Strontium Nitrate	$Sr(NO_3)_2$	211.62 g/mol	10042-76-9	0.02%
Ammonium Metavanadate	NH_4VO_3	116.97 g/mol	7803-55-6	0.02%
Cadmium Nitrate	CdN_2O_6	236.42 g/mol	10325-94-7	0.02%
Arsenic Acid	H_3AsO_4	141.94 g/mol	7778-39-4	0.02%
Molybdenum Pentafluoride	MoF_5	Data not available.	13819-84-6	0.02%
Fluoroantimonic Acid	$HSbF_6$	236.76 g/mol	16950-06-4	0.02%
Barium Nitrate	$Ba(NO_3)_2$	261.33 g/mol	10022-31-8	0.02%
Tin (IV) Fluoride	SnF_4	194.70 g/mol	7783-62-2	0.02%
Selenous Acid	H_2SeO_3	128.97 g/mol	7783-00-8	0.02%
Lead Nitrate	$Pb(NO_3)_2$	331.20 g/mol	10099-74-8	0.02%
Silver Nitrate	$AgNO_3$	169.87 g/mol	7761-88-8	0.02%
Thallium (I) Nitrate	$TlNO_3$	266.38 g/mol	10102-45-1	0.01%

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.

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.

Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause mild irritation to areas of contact.

4.3. Medical Attention or Special Treatment Needed

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

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Not considered to be a fire or explosion hazard.

5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment for Firefighters

Wear protective clothing and NIOSH-approved 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

Absorb with suitable material and 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.

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SECTION 8: Exposure Controls / Personal Protection

8.1. Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Ammonium Hexafluorotitanate (16962-40-6)	TWA	USA	2.5 mg/m³ TWA (as F) 2.5 mg/m³ TWA (dust)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Ammonium Hexafluorotitanate (16962-40-6)	TLV-TWA	USA	2.5 mg/m³ TWA (as F)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Arsenic Acid (7778-39-4)	TWA	USA	10 µg/m³ TWA (as As)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Arsenic Acid (7778-39-4)	TLV-TWA	USA	0.01 mg/m³ TWA (as As)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Arsenic Acid (7778-39-4)	PEL	USA	10 µg/m³ TWA (Cancer hazard, See 29 CFR 1910.1018, except Arsine, as As) 5 µg/m³ Action Level (as As)	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Barium Nitrate (10022-31-8)	TWA	USA	0.5 mg/m³ TWA (as Ba)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Barium Nitrate (10022-31-8)	TLV-TWA	USA	0.5 mg/m³ TWA (as Ba)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Beryllium Nitrate (13597-99-4)	TWA	USA	2 µg/m³ TWA (as Be)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Beryllium Nitrate (13597-99-4)	TLV-TWA	USA	0.00005 mg/m³ TWA (inhalable fraction, as Be)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Beryllium Nitrate (13597-99-4)	PEL-Ceiling	USA	5 µg/m³ Ceiling (as Be)	U.S. - OSHA - Final PELs - Ceiling Limits
Cadmium Nitrate (10325-94-7)	TLV-TWA	USA	0.01 mg/m³ TWA (as Cd) 0.002 mg/m³ TWA (respirable fraction, as Cd)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Cadmium Nitrate (10325-94-7)	PEL	USA	5 µg/m³ TWA (Do not eat, drink or chew tobacco or gum or apply cosmetics in regulated areas. Carcinogen - dust can cause lung and kidney disease. See 29 CFR 1910.1027, as Cd) 2.5 µg/m³ Action Level (as Cd)	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Chromium (III) Nitrate (13548-38-4)	TWA	USA	0.5 mg/m³ TWA (as Cr)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chromium (III) Nitrate (13548-38-4)	TLV-TWA	USA	0.5 mg/m³ TWA (as Cr)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Cobalt (II) Nitrate (10141-05-6)	TLV-TWA	USA	0.02 mg/m³ TWA (as Co)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Cupric Nitrate (3251-23-8)	TLV-TWA	USA	1 mg/m³ TWA (dust and mist, as Cu)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

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Ferric Nitrate (10421-48-4)	TLV-TWA	USA	1 mg/m³ TWA (as Fe)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Fluoroantimonic Acid (16950-06-4)	TWA	USA	0.5 mg/m³ TWA (as Sb)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Fluoroantimonic Acid (16950-06-4)	TLV-TWA	USA	0.5 mg/m³ TWA (as Sb)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
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/m³ TWA (as F) 2.5 mg/m³ TWA (dust)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
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)	TLV-TWA	USA	2.5 mg/m³ TWA (as F)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hydrofluoric Acid (7664-39-3)	TLV-TWA	USA	0.5 ppm TWA (as F)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead Nitrate (10099-74-8)	TWA	USA	50 µg/m³ TWA (as Pb)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Lead Nitrate (10099-74-8)	TLV-TWA	USA	0.05 mg/m³ TWA (as Pb)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead Nitrate (10099-74-8)	PEL	USA	30 µg/m³ Action Level (Poison, See 29 CFR 1910.1025, as Pb) 50 µg/m³ TWA (as Pb)	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Manganese Nitrate (10377-66-9)	TLV-TWA	USA	0.02 mg/m³ TWA (respirable fraction, as Mn) 0.1 mg/m³ TWA (inhalable fraction, as Mn)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Manganese Nitrate (10377-66-9)	PEL-Ceiling	USA	5 mg/m³ Ceiling (as Mn)	U.S. - OSHA - Final PELs - Ceiling Limits
Nickel (II) Nitrate (13138-45-9)	TWA	USA	1 mg/m³ TWA (as Ni)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (II) Nitrate (13138-45-9)	TLV-TWA	USA	0.1 mg/m³ TWA (inhalable fraction, as Ni)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TWA	USA	2 ppm TWA 5 mg/m³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
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)
Selenous Acid (7783-00-8)	TWA	USA	0.2 mg/m³ TWA (as Se)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Selenous Acid (7783-00-8)	TLV-TWA	USA	0.2 mg/m³ TWA (as Se)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

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Silver Nitrate (7761-88-8)	TWA	USA	0.01 mg/m³ TWA (as Ag)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Silver Nitrate (7761-88-8)	TLV-TWA	USA	0.01 mg/m³ TWA (as Ag)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Thallium (I) Nitrate (10102-45-1)	TWA	USA	0.1 mg/m³ TWA (as Tl)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Thallium (I) Nitrate (10102-45-1)	TLV-TWA	USA	0.02 mg/m³ TWA (inhalable fraction, as Tl)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Tin (IV) Fluoride (7783-62-2)	TWA	USA	2 mg/m³ TWA (except oxides, as Sn)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Tin (IV) Fluoride (7783-62-2)	TLV-TWA	USA	2 mg/m³ TWA (except Tin hydride, as Sn)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

8.2. Exposure Controls

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

Respiratory Protection: No specific controls are needed. Normal room ventilation is adequate

Skin Protection: Wear protective gloves and eye protection.

Eye Protection: Wear protective gloves and eye protection.

8.3. Personal Protective Equipment

Wear protective gloves and eye protection.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Data not available.
Physical State: Liquid
Odor: Data not available.
Odor Threshold: Data not available.
pH: Data not available.
Melting/Freezing Point: Data not available.
Initial Boiling Point /Range: Data not available.
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: 1.09
Solubility: Data not available.
Partition Coeffieient (n-Octanol/Water): Data not available.
Auto-Ignition Temperature: Data not available.
Decomposition Temperature: Data not available.
Viscosity: Data not available.
ExplosiveProperties: 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.

10.4. Hazardous Decomposition Products

May emit irritating fumes when heated to decomposition.

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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:

Data not available.

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:

Not applicable.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

May cause an allergic skin reaction. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water immediately). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

May cause cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

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Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

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, Hydrofluoric Acid, Tartaric Acid, L-(+)-)

Hazard Class: 8

Packing Group: II

Hazard Placard Labels:

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Sizes:
UN Number:
Proper Shipping Name:
Hazard Class:
Packing Group:
Hazard Placard Labels:

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, Hydrofluoric Acid, Tartaric Acid, L-(+)-)
Hazard Class: 8
Packing Group: II
Hazard Placard Labels:

SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Lead Nitrate (CAS # 10099-74-8): 30 µg/m3 Action Level (See 29 CFR 1910.1025, as Pb); 50 µg/m3 TWA (See 29 CFR 1910.1025, as Pb)
Cadmium Nitrate (CAS # 10325-94-7): 5 µg/m3 TWA (See 29 CFR 1910.1027, as Cd); 2.5 µg/m3 Action Level (as Cd)
Arsenic Acid (CAS # 7778-39-4): 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)

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

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
Nitric Acid (CAS # 7697-37-2): 1000 lb TPQ
Selenous Acid (CAS # 7783-00-8): 10 lb EPCRA RQ
Selenous Acid (CAS # 7783-00-8): 1000 lb lower TPQ; 10000 lb upper TPQ

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

Lead Nitrate (CAS # 10099-74-8): 10 lb final RQ; 4.54 kg final RQ
Thallium (I) Nitrate (CAS # 10102-45-1): 100 lb final RQ; 45.4 kg final RQ
Ferric Nitrate (CAS # 10421-48-4): 1000 lb final RQ; 454 kg final RQ
Nickel (II) Nitrate (CAS # 13138-45-9): 100 lb final RQ; 45.4 kg final RQ
Beryllium Nitrate (CAS # 13597-99-4): 1 lb final RQ (listed under Beryllium nitrate); 0.454 kg final RQ (listed under Beryllium nitrate)
Beryllium Nitrate (CAS # 13597-99-4): 1 lb final RQ; 0.454 kg final RQ
Cupric Nitrate (CAS # 3251-23-8): 100 lb final RQ; 45.4 kg final RQ
Hydrofluoric Acid (CAS # 7664-39-3): 100 lb final RQ; 45.4 kg final RQ
Nitric Acid (CAS # 7697-37-2): 1000 lb final RQ; 454 kg final RQ
Silver Nitrate (CAS # 7761-88-8): 1 lb final RQ; 0.454 kg final RQ
Arsenic Acid (CAS # 7778-39-4): 1 lb final RQ; 0.454 kg final RQ
Zinc Nitrate (CAS # 7779-88-6): 1000 lb final RQ; 454 kg final RQ
Selenous Acid (CAS # 7783-00-8): 10 lb final RQ; 4.54 kg final RQ
Ammonium Metavanadate (CAS # 7803-55-6): 1000 lb final RQ; 454 kg final RQ

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

Barium Nitrate (CAS # 10022-31-8): 1.0 % de minimis concentration (does not include Barium sulfate CAS 7727-43-7, Chemical Category N040)
Barium Nitrate (CAS # 10022-31-8): 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511)
Strontium Nitrate (CAS # 10042-76-9): 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511)
Lead Nitrate (CAS # 10099-74-8): 0.1 % Supplier notification limit (listed under Chemical Category N420)
Lead Nitrate (CAS # 10099-74-8): 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511)
Lead Nitrate (CAS # 10099-74-8): 100 lb RT
Thallium (I) Nitrate (CAS # 10102-45-1): 1.0 % de minimis concentration (listed under Chemical Category N760)
Calcium Nitrate (CAS # 10124-37-5): 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511)
Cobalt (II) Nitrate (CAS # 10141-05-6): 0.1 % de minimis concentration (listed under Chemical Category N096)
Cadmium Nitrate (CAS # 10325-94-7): 0.1 % de minimis concentration (listed under Chemical Category N078)
Cadmium Nitrate (CAS # 10325-94-7): 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511)
Magnesium Nitrate (CAS # 10377-60-3): 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511)
Manganese Nitrate (CAS # 10377-66-9): 1.0 % de minimis concentration (listed under Chemical Category N450)
Ferric Nitrate (CAS # 10421-48-4): 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511)
Nickel (II) Nitrate (CAS # 13138-45-9): 0.1 % de minimis concentration (listed under Chemical Category N495)
Chromium (III) Nitrate (CAS # 13548-38-4): 1.0 % de minimis concentration (except for Chromite ore mined in the Transvaal Region of South Africa and the unreacted ore component of the Chromite ore processing residue (COPR), Chemical Cate

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15.5. Massachusetts Right-to-Know Substance List

Barium Nitrate (CAS # 10022-31-8): Present
Strontium Nitrate (CAS # 10042-76-9): Present
Lead Nitrate (CAS # 10099-74-8): Present
Thallium (I) Nitrate (CAS # 10102-45-1): Present
Cobalt (II) Nitrate (CAS # 10141-05-6): Present
Magnesium Nitrate (CAS # 10377-60-3): Present
Ferric Nitrate (CAS # 10421-48-4): Present
Nickel (II) Nitrate (CAS # 13138-45-9): Present
Beryllium Nitrate (CAS # 13597-99-4): Present
Cupric Nitrate (CAS # 3251-23-8): Present
Sodium Nitrate (CAS # 7631-99-4): Present
Hydrofluoric Acid (CAS # 7664-39-3): Extraordinarily hazardous
Nitric Acid (CAS # 7697-37-2): Extraordinarily hazardous
Potassium Nitrate (CAS # 7757-79-1): Present
Silver Nitrate (CAS # 7761-88-8): Present
Arsenic Acid (CAS # 7778-39-4): Present
Zinc Nitrate (CAS # 7779-88-6): Present
Selenous Acid (CAS # 7783-00-8): Extraordinarily hazardous
Ammonium Metavanadate (CAS # 7803-55-6): Present

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15.6. Pennsylvania Right-to-Know Hazardous Substances

Barium Nitrate (CAS # 10022-31-8): Environmental hazard
Barium Nitrate (CAS # 10022-31-8): Present
Strontium Nitrate (CAS # 10042-76-9): Present
Lead Nitrate (CAS # 10099-74-8): Environmental hazard
Lead Nitrate (CAS # 10099-74-8): Present
Thallium (I) Nitrate (CAS # 10102-45-1): Environmental hazard
Thallium (I) Nitrate (CAS # 10102-45-1): Present
Cobalt (II) Nitrate (CAS # 10141-05-6): Environmental hazard
Cobalt (II) Nitrate (CAS # 10141-05-6): Present
Cadmium Nitrate (CAS # 10325-94-7): Environmental hazard
Cadmium Nitrate (CAS # 10325-94-7): Present
Magnesium Nitrate (CAS # 10377-60-3): Present
Manganese Nitrate (CAS # 10377-66-9): Environmental hazard
Manganese Nitrate (CAS # 10377-66-9): Present
Ferric Nitrate (CAS # 10421-48-4): Environmental hazard
Ferric Nitrate (CAS # 10421-48-4): Present
Nickel (II) Nitrate (CAS # 13138-45-9): Environmental hazard
Nickel (II) Nitrate (CAS # 13138-45-9): Present
Chromium (III) Nitrate (CAS # 13548-38-4): Environmental hazard
Chromium (III) Nitrate (CAS # 13548-38-4): Present
Beryllium Nitrate (CAS # 13597-99-4): Environmental hazard
Beryllium Nitrate (CAS # 13597-99-4): Present
Fluoroantimonic Acid (CAS # 16950-06-4): Environmental hazard
Fluoroantimonic Acid (CAS # 16950-06-4): Present
Cupric Nitrate (CAS # 3251-23-8): Environmental hazard
Cupric Nitrate (CAS # 3251-23-8): Present
Sodium Nitrate (CAS # 7631-99-4): Present
Hydrofluoric Acid (CAS # 7664-39-3): Environmental hazard
Hydrofluoric Acid (CAS # 7664-39-3): Present
Nitric Acid (CAS # 7697-37-2): Environmental hazard
Nitric Acid (CAS # 7697-37-2): Present
Water (CAS # 7732-18-5): Present
Potassium Nitrate (CAS # 7757-79-1): Present
Silver Nitrate (CAS # 7761-88-8): Environmental hazard
Silver Nitrate (CAS # 7761-88-8): Present
Arsenic Acid (CAS # 7778-39-4): Environmental hazard
Arsenic Acid (CAS # 7778-39-4): Present
Zinc Nitrate (CAS # 7779-88-6): Environmental hazard
Zinc Nitrate (CAS # 7779-88-6): Present
Selenous Acid (CAS # 7783-00-8): 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
Barium Nitrate (CAS # 10022-31-8): sn 2146
Barium Nitrate (CAS # 10022-31-8): SN 2146 500 lb TPQ (except Barium sulfate, Category Code N040.)
Barium Nitrate (CAS # 10022-31-8): sn 3722
Barium Nitrate (CAS # 10022-31-8): SN 3722 500 lb TPQ (water dissociable, Category Code N511)
Strontium Nitrate (CAS # 10042-76-9): sn 1743
Strontium Nitrate (CAS # 10042-76-9): sn 3722
Strontium Nitrate (CAS # 10042-76-9): SN 3722 500 lb TPQ (water dissociable, Category Code N511)
Lead Nitrate (CAS # 10099-74-8): carcinogen
Lead Nitrate (CAS # 10099-74-8): carcinogen; teratogen
Lead Nitrate (CAS # 10099-74-8): sn 1108
Lead Nitrate (CAS # 10099-74-8): sn 2266
Lead Nitrate (CAS # 10099-74-8): SN 2266 500 lb TPQ (Category Code N420. Includes any unique chemical substance that contains the named metal as part of that chemical structure)
Lead Nitrate (CAS # 10099-74-8): sn 3722
Lead Nitrate (CAS # 10099-74-8): SN 3722 500 lb TPQ (water dissociable, Category Code N511)
Thallium (I) Nitrate (CAS # 10102-45-1): sn 1841
Thallium (I) Nitrate (CAS # 10102-45-1): sn 2809
Thallium (I) Nitrate (CAS # 10102-45-1): SN 2809 500 lb TPQ (Category Code N760. Includes any unique chemical substance that contains the named metal as part of that chemical structure)
Thallium (I) Nitrate (CAS # 10102-45-1): sn 3722
Thallium (I) Nitrate (CAS # 10102-45-1): SN 3722 500 lb TPQ (water dissociable, Category Code N511)
Calcium Nitrate (CAS # 10124-37-5): sn 0324
Calcium Nitrate (CAS # 10124-37-5): sn 3722
Calcium Nitrate (CAS # 10124-37-5): SN 3722 500 lb TPQ (water dissociable, Category Code N511)
Cobalt (II) Nitrate (CAS # 10141-05-6): carcinogen
Cobalt (II) Nitrate (CAS # 10141-05-6): sn 2222
Cobalt (II) Nitrate (CAS # 10141-05-6): SN 2222 500 lb TPQ (Category Code N096)
Cobalt (II) Nitrate (CAS # 10141-05-6): sn 3722
Cobalt (II) Nitrate (CAS # 10141-05-6): SN 3722 500 lb TPQ (water dissociable, Category Code N511)
Cadmium Nitrate (CAS # 10325-94-7): carcinogen
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15.8. California Proposition 65

Lead Nitrate (CAS # 10099-74-8): carcinogen, 10/1/1992
Cadmium Nitrate (CAS # 10325-94-7): carcinogen, 10/1/1987
Nickel (II) Nitrate (CAS # 13138-45-9): carcinogen, 5/7/2004
Beryllium Nitrate (CAS # 13597-99-4): carcinogen, 10/1/1987
Arsenic Acid (CAS # 7778-39-4): 0.06 µg/day NSRL (inhalation, listed under Arsenic); 10 µg/day NSRL (except inhalation, listed under Arsenic)
Arsenic Acid (CAS # 7778-39-4): carcinogen, 2/27/1987

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

Barium Nitrate (CAS # 10022-31-8): Present (DSL)
Strontium Nitrate (CAS # 10042-76-9): Present (DSL)
Lead Nitrate (CAS # 10099-74-8): Present (DSL)
Thallium (I) Nitrate (CAS # 10102-45-1): Present (NDSL)
Calcium Nitrate (CAS # 10124-37-5): Present (DSL)
Cobalt (II) Nitrate (CAS # 10141-05-6): Present (DSL)
Cadmium Nitrate (CAS # 10325-94-7): Present (DSL)
Magnesium Nitrate (CAS # 10377-60-3): Present (DSL)
Manganese Nitrate (CAS # 10377-66-9): Present (DSL)
Ferric Nitrate (CAS # 10421-48-4): Present (DSL)
Nickel (II) Nitrate (CAS # 13138-45-9): Present (DSL)
Aluminum Nitrate (CAS # 13473-90-0): Present (DSL)
Chromium (III) Nitrate (CAS # 13548-38-4): Present (DSL)
Beryllium Nitrate (CAS # 13597-99-4): Present (NDSL)
Fluoroantimonic Acid (CAS # 16950-06-4): Present (NDSL)
Ammonium Hexafluorotitanate (CAS # 16962-40-6): Present (NDSL)
Cupric Nitrate (CAS # 3251-23-8): Present (DSL)
Sodium Nitrate (CAS # 7631-99-4): Present (DSL)
Hydrofluoric Acid (CAS # 7664-39-3): Present (DSL)
Nitric Acid (CAS # 7697-37-2): Present (DSL)
Water (CAS # 7732-18-5): Present (DSL)
Potassium Nitrate (CAS # 7757-79-1): Present (DSL)
Silver Nitrate (CAS # 7761-88-8): Present (DSL)
Arsenic Acid (CAS # 7778-39-4): Present (DSL)
Zinc Nitrate (CAS # 7779-88-6): Present (DSL)
Selenous Acid (CAS # 7783-00-8): Present (DSL)
Ammonium Metavanadate (CAS # 7803-55-6): Present (DSL)

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

Barium Nitrate (CAS # 10022-31-8): Present
Strontium Nitrate (CAS # 10042-76-9): Present
Lead Nitrate (CAS # 10099-74-8): Present
Thallium (I) Nitrate (CAS # 10102-45-1): Present
Calcium Nitrate (CAS # 10124-37-5): Present
Cobalt (II) Nitrate (CAS # 10141-05-6): Present
Cadmium Nitrate (CAS # 10325-94-7): Present
Magnesium Nitrate (CAS # 10377-60-3): Present
Manganese Nitrate (CAS # 10377-66-9): Present
Ferric Nitrate (CAS # 10421-48-4): Present
Nickel (II) Nitrate (CAS # 13138-45-9): Present
Aluminum Nitrate (CAS # 13473-90-0): Present
Chromium (III) Nitrate (CAS # 13548-38-4): Present
Beryllium Nitrate (CAS # 13597-99-4): Present
Fluoroantimonic Acid (CAS # 16950-06-4): Present
Ammonium Hexafluorotitanate (CAS # 16962-40-6): Present
Cupric Nitrate (CAS # 3251-23-8): Present
Sodium Nitrate (CAS # 7631-99-4): Present
Hydrofluoric Acid (CAS # 7664-39-3): Present [T]
Nitric Acid (CAS # 7697-37-2): Present
Water (CAS # 7732-18-5): Present
Potassium Nitrate (CAS # 7757-79-1): Present
Silver Nitrate (CAS # 7761-88-8): Present
Arsenic Acid (CAS # 7778-39-4): Present
Zinc Nitrate (CAS # 7779-88-6): Present
Selenous Acid (CAS # 7783-00-8): Present
Ammonium Metavanadate (CAS # 7803-55-6): Present

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

Not listed.

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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. May cause an allergic skin reaction. May cause cancer. Toxic to aquatic life. Harmful to aquatic life.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original container. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves and eye protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. 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. IF exposed or concerned: Get medical attention. Specific treatment (Wash areas of contact with water immediately). If skin irritation occurs: Get medical attention. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

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

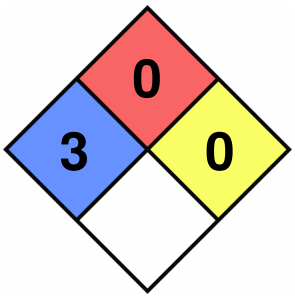
Dispose of contents in accordance with local, state, federal and international regulations.

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.
Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 3
Flammability: 0
Reactivity: 0
Special Hazard:



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16.4. Document Revision

Last Revision Date: 9/15/2016

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.