Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Mixed Calibration Standard 4, ICP

Product Number: RMXCL4

Other Identifying Product Numbers: RMXCL4-100, RMXCL4-500

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	
Hazard Class	Category	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 2	H319	P264, P280, P305+P351+P338, P337+P313

Product Number: RMXCL4 Page 1 of 17



2.2. GHS Label Elements

Pictograms:





Signal Word: Danger

Hazard Statements:

Hazard Number	Hazard Statement	
H314	Causes severe skin burns and eye damage.	
H319	Causes serious eye irritation.	

Precautionary Statements:

Precautionary Number	Precautionary Statement	
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).	
P337+P313	If eye irritation persists: Get medical attention.	
P363	Wash contaminated clothing before reuse.	
P405	Store locked up.	
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.

Product Number: RMXCL4 Page 2 of 17



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_2O	18.01 g/mol	7732-18-5	97.26
Nitric Acid	HNO ₃	63.01 g/mol	7697-37-2	2.09
Aluminum Nitrate Nonahydrate	$AI(NO_3)_3 \cdot 9H_2O$	375.13 g/mol	7784-27-2	0.27
Calcium Carbonate	CaCO ₃	100.09 g/mol	471-34-1	0.24
Potassium Carbonate	K₂CO₃	138.20 g/mol	584-08-7	< 0.1
Sodium Carbonate	Na ₂ CO ₃	105.98 g/mol	497-19-8	< 0.1
Chromium Nitrate Nonahydrate	$Cr(NO_3)_3 \cdot 9H_2O$	238.01 g/mol	7789-02-8	< 0.1
Nickel	Ni	58.69 g/mol	7440-02-0	< 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 irritation. CAUTION! Mildly corrosive liquid. Contains a trace amount 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 i 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.

Product Number: RMXCL4 Page 3 of 17

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

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 locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials.

Product Number: RMXCL4 Page 4 of 17



Safety Data Sheet

SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Calcium Carbonate (471-34-1)	TWA	USA	"15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)" As Calcium carbonate [1317-65-3]	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/m³ 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/m³ 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/m³ 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/m³ 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/m³ TWA" As Nickel [7440-02-0]	U.S OSHA - Final PELs - Time Weighted Averages (TWAs)
Nickel (7440-02-0)	TWA	USA	"1 mg/m³ 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/m³ 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/m³ 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/m³ TWA" As Nickel [7440-02-0]	U.S OSHA - Final PELs - Time Weighted Averages (TWAs)

Product Number: RMXCL4 Page 5 of 17



Safety Data Sheet

Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m³ TWA (inhalable particulate matter)" As	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
			Nickel, elemental [7440-02-0]	
Nickel (7440-02-0)	TWA	USA	"1 mg/m³ TWA" As Nickel	U.S OSHA - Final PELs - Time
,			[7440-02-0]	Weighted Averages (TWAs)
Nickel (7440-02-0)	TLV-TWA	USA	1.5 mg/m ³ TWA (inhalable	ACGIH - Threshold Limit Values - Time
			particulate matter)	Weighted Averages (TLV-TWA)
Nickel (7440-02-0)	TWA	USA	1 mg/m³ TWA	U.S OSHA - Final PELs - Time
				Weighted Averages (TWAs)
Nickel (7440-02-0)	TLV-TWA	USA	"1.5 mg/m3 TWA (inhalable	ACGIH - Threshold Limit Values - Time
			particulate matter)" As	Weighted Averages (TLV-TWA)
			Nickel, elemental	
			[7440-02-0]	
Nickel (7440-02-0)	TWA	USA	"1 mg/m³ TWA" As Nickel	U.S OSHA - Final PELs - Time
			[7440-02-0]	Weighted Averages (TWAs)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid	ACGIH - Threshold Limit Values - Short
			[7697-37-2]	Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid	ACGIH - Threshold Limit Values - Time
			[7697-37-2]	Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³	U.S OSHA - Final PELs - Time
			TWA" As Nitric acid	Weighted Averages (TWAs)
			[7697-37-2]	
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid	ACGIH - Threshold Limit Values - Time
			[7697-37-2]	Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³	U.S OSHA - Final PELs - Time
			TWA" As Nitric acid	Weighted Averages (TWAs)
N::: A : 1 /7007 07 0\	TIN OTE	1104	[7697-37-2]	ACCIUL Thurshald Carly Value Obert
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid	ACGIH - Threshold Limit Values - Short
NU.: A :: 1 /7007 07 0\	TIV OTEI	1104	[7697-37-2]	Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-STEL	USA	4 ppm STEL	ACGIH - Threshold Limit Values - Short
Nit.: A -:-! (7007 07 0)	TI \ / T\A/A	1104	O TIMA	Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-TWA	USA	2 ppm TWA	ACGIH - Threshold Limit Values - Time
Nitrio Apid (7007 07 0)	T\\\\	LICA	O nom TMA. E ma/m³ TMA	Weighted Averages (TLV-TWA) U.S OSHA - Final PELs - Time
Nitric Acid (7697-37-2)	TWA	USA	2 ppm TWA; 5 mg/m³ TWA	Weighted Averages (TWAs)
Nitric Acid (7607 27 2)	TWA	USA	"2 ppm TWA; 5 mg/m ³	U.S OSHA - Final PELs - Time
Nitric Acid (7697-37-2)	IVVA	USA	TWA" As Nitric acid	Weighted Averages (TWAs)
			[7697-37-2]	vvoigilied Avelages (1 WAS)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid	ACGIH - Threshold Limit Values - Time
	1 L A - 1 AAV	UUA	[7697-37-2]	Weighted Averages (TLV-TWA)
			[1001 01 2]	Troigitiou Avoiagos (TEV-TVVA)

Product Number: RMXCL4 Page 6 of 17



Safety Data Sheet

Nitric Acid (7697-37-2) TLV-STEL		USA	"4 ppm STEL" As Nitric acid	ACGIH - Threshold Limit Values - Short
			[7697-37-2]	Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³	U.S OSHA - Final PELs - Time
			TWA" As Nitric acid	Weighted Averages (TWAs)
			[7697-37-2]	
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid	ACGIH - Threshold Limit Values - Short
			[7697-37-2]	Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid	ACGIH - Threshold Limit Values - Time
			[7697-37-2]	Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³	U.S OSHA - Final PELs - Time
			TWA" As Nitric acid	Weighted Averages (TWAs)
			[7697-37-2]	
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid	ACGIH - Threshold Limit Values - Time
			[7697-37-2]	Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid	ACGIH - Threshold Limit Values - Short
			[7697-37-2]	Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TLV-TWA	USA	"2 ppm TWA" As Nitric acid	ACGIH - Threshold Limit Values - Time
			[7697-37-2]	Weighted Averages (TLV-TWA)
Nitric Acid (7697-37-2)	TLV-STEL	USA	"4 ppm STEL" As Nitric acid	ACGIH - Threshold Limit Values - Short
			[7697-37-2]	Term Exposure Limits (TLV-STEL)
Nitric Acid (7697-37-2)	TWA	USA	"2 ppm TWA; 5 mg/m ³	U.S OSHA - Final PELs - Time
			TWA" As Nitric acid	Weighted Averages (TWAs)
			[7697-37-2]	
Chromium Nitrate Nonahydrate	(7789-(TWA	USA	"0.5 mg/m3 TWA (as Cr)" As	U.S OSHA - Final PELs - Time
			Chromium(III) compounds	Weighted Averages (TWAs)
			[RR-03889-1]	
Chromium Nitrate Nonahydrate	(7789-(TWA	USA	"0.5 mg/m³ TWA (as Cr)" As	U.S OSHA - Final PELs - Time
•			Chromium(III) compounds	Weighted Averages (TWAs)
			[RR-03889-1]	
Chromium Nitrate Nonahydrate	(7789-(TWA	USA	0.5 mg/m ³ TWA (as Cr)	U.S OSHA - Final PELs - Time
•			- , ,	Weighted Averages (TWAs)
Chromium Nitrate Nonahydrate (7789-(TWA		USA	"0.5 mg/m3 TWA (as Cr)" As	U.S OSHA - Final PELs - Time
•			Chromium(III) compounds	Weighted Averages (TWAs)
			[RR-03889-1]	, , , , , , , , , , , , , , , , , , ,
Chromium Nitrate Nonahydrate (7789-(TWA		USA	"0.5 mg/m³ TWA (as Cr)" As	U.S OSHA - Final PELs - Time
, , , , , , , , , , , , , , , , , , , ,	,		Chromium(III) compounds	Weighted Averages (TWAs)
			[RR-03889-1]	

8.2. Exposure Controls

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

Respiratory Protection: Normal room ventilation is adequate.

Product Number: RMXCL4 Page 7 of 17

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.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Colorless liquid

Physical State: Liquid

Odor: Data not available.

Odor Threshold: Data not available.

pH: Data not available.

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.

Product Number: RMXCL4 Page 8 of 17

10.3. Conditions to Avoid and Incompatible Materials

Strong bases, metallic powders, Carbides, Hydrogen Sulfide, Turpentine and combustible organics.

10.4. Hazardous Decomposition Products

Will not occur.

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 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 irritation. Wash arms, hands and face thoroughly after handling. 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. If eye irritation persists: Get medical attention.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Reproductive Toxicity:

Not applicable.

Product Number: RMXCL4 Page 9 of 17

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

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

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.

Product Number: RMXCL4 Page 10 of 17

SECTION 14: Transportation Information



Not regulated according to DOT Regulations.

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

Not regulated according to IATA Dangerous Goods Regulations.

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG Regulations.

Product Number: RMXCL4 Page 11 of 17

SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

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

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

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 μ 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 μ 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 $>100 \mu m$); 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 $>100 \mu m$)

Nitric Acid (CAS # 7697-37-2): "1000 lb final RQ; 454 kg final RQ" As Nitric acid [7697-37-2]

Nitric Acid (CAS # 7697-37-2): 1000 lb final RQ; 454 kg final RQ

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

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

Nitric Acid (CAS # 7697-37-2): "1.0 % de minimis concentration" As Nitric acid [7697-37-2]

Nitric Acid (CAS # 7697-37-2): 1.0 % de minimis concentration

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): "1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)" As Nitrate compounds, water dissociable [RR-03804-0]

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): 1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)

Chromium Nitrate Nonahydrate (CAS # 7789-02-8): "1.0 % de minimis concentration (includes any unique chemical substance that contains Chromiur as part of that chemical's infrastructure except for Chromite ore mined in the Transvaal Region of South Africa and the unreacted ore component of the Chromite ore processing residue (COPR), no de minimis concentration has been assigned to this chemical category, listed under Chemical Category N090)" As Chromium(III) compounds [RR-03889-1]

Chromium Nitrate Nonahydrate (CAS # 7789-02-8): "1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)" As Nitrate compounds, water dissociable [RR-03804-0];

"1.0 % de minimis concentration (includes any unique chemical substance that contains Chromium as part of that chemical's infrastructure except for Chromite ore mined in the Transvaal Region of South Africa and the unreacted ore component of the Chromite ore processing residue (COPR), no de minimis concentration has been assigned to this chemical category, listed under Chemical Category N090)" As Ch

Product Number: RMXCL4 Page 12 of 17

Safety Data Sheet

15.5. Massachusetts Right-to-Know Substance List

Calcium Carbonate (CAS # 471-34-1): "Present (including dust)" As Calcium carbonate [1317-65-3]

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

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

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

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

15.6. Pennsylvania Right-to-Know Hazardous Substances

Calcium Carbonate (CAS # 471-34-1): "Present" As Limestone [1317-65-3]

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

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

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

Nitric Acid (CAS # 7697-37-2): Environmental hazard

Nitric Acid (CAS # 7697-37-2): Present

Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]

Water (CAS # 7732-18-5): Present

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): "Present" As Aluminum soluble salts [RR-00021-5]

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): Present

Chromium Nitrate Nonahydrate (CAS # 7789-02-8): "Environmental hazard" As Chromium compounds [RR-00634-8]

Chromium Nitrate Nonahydrate (CAS # 7789-02-8): "Present" As Chromium compounds [RR-00634-8]

Chromium Nitrate Nonahydrate (CAS # 7789-02-8): Environmental hazard

Chromium Nitrate Nonahydrate (CAS # 7789-02-8): Present

Product Number: RMXCL4 Page 13 of 17



Safety Data Sheet

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

Calcium Carbonate (CAS # 471-34-1): "sn 4001" As Calcium carbonate [1317-65-3]

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 page 1.00 lb TPQ (Category Code N495). Includes any unique chemical substance that contains the named metal as page 1.00 lb TPQ (Category Code N495).

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

Nitric Acid (CAS # 7697-37-2): "corrosive; reactive - second degree" As Nitric acid [7697-37-2]

Nitric Acid (CAS # 7697-37-2): "SN 1356 500 lb TPQ" As Nitric acid [7697-37-2]

Nitric Acid (CAS # 7697-37-2): "sn 1356" As Nitric acid [7697-37-2]

Nitric Acid (CAS # 7697-37-2): corrosive; reactive - second degree

Nitric Acid (CAS # 7697-37-2): sn 1356

Nitric Acid (CAS # 7697-37-2): SN 1356 500 lb TPQ

Nitric Acid (CAS # 7697-37-2): sn 3722

Nitric Acid (CAS # 7697-37-2): SN 3722 500 lb TPQ (water dissociable, Category Code N511)

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): "sn 0061" As Aluminum nitrate [13473-90-0];

"sn 3722" As Nitrate compounds [RR-01770-9]

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): "SN 3722 500 lb TPQ (water dissociable, Category Code N511)" As Nitrate compounds [RR-01770-9]

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): "sn 3722" As Nitrate compounds [RR-01770-9]

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): sn 0061

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): sn 3722

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): SN 3722 500 lb TPQ (water dissociable, Category Code N511)

Chromium Nitrate Nonahydrate (CAS # 7789-02-8): "sn 0435" As Chromium nitrate [13548-38-4];

"sn 2245" As Chromium compounds [RR-00634-8];

"sn 3722" A

15.8. California Proposition 65

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)

Product Number: RMXCL4 Page 14 of 17

Safety Data Sheet

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

Calcium Carbonate (CAS # 471-34-1): "Present" As Calcium carbonate [1317-65-3] (NDSL)

Calcium Carbonate (CAS # 471-34-1): "Present" As Carbonic acid, calcium salt (1:1) [471-34-1] (DSL)

Calcium Carbonate (CAS # 471-34-1): Present (DSL)

Sodium Carbonate (CAS # 497-19-8): "Present" As Sodium carbonate [497-19-8] (DSL)

Sodium Carbonate (CAS # 497-19-8): Present (DSL)

Potassium Carbonate (CAS # 584-08-7): "Present" As Potassium carbonate [584-08-7] (DSL)

Potassium Carbonate (CAS # 584-08-7): Present (DSL)

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

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

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): "Present" As Aluminum nitrate [13473-90-0] (DSL)

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): 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.

Calcium Carbonate (CAS # 471-34-1): "Present (ACTIVE)" As Carbonic acid, calcium salt (1:1) [471-34-1]

Calcium Carbonate (CAS # 471-34-1): Present (ACTIVE)

Sodium Carbonate (CAS # 497-19-8): "Present (ACTIVE)" As Carbonic acid sodium salt (1:2) [497-19-8]

Sodium Carbonate (CAS # 497-19-8): Present (ACTIVE)

Potassium Carbonate (CAS # 584-08-7): "Present (ACTIVE)" As Carbonic acid, potassium salt (1:2) [584-08-7]

Potassium Carbonate (CAS # 584-08-7): Present (ACTIVE)

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

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

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): "Present (ACTIVE)" As Nitric acid, aluminum salt (3:1) [13473-90-0]

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): 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)

Product Number: RMXCL4 Page 15 of 17

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

Calcium Carbonate (CAS # 471-34-1): "207-439-9" As Calcium carbonate [471-34-1]

Calcium Carbonate (CAS # 471-34-1): 207-439-9

Sodium Carbonate (CAS # 497-19-8): "207-838-8" As Disodium carbonate [497-19-8]

Sodium Carbonate (CAS # 497-19-8): 207-838-8

Sodium Carbonate (CAS # 497-19-8): 231-420-4

Potassium Carbonate (CAS # 584-08-7): "209-529-3" As Potassium carbonate [584-08-7]

Potassium Carbonate (CAS # 584-08-7): 209-529-3

Potassium Carbonate (CAS # 584-08-7): 241-378-9

Nickel (CAS # 7440-02-0): "231-111-4" As Nickel [7440-02-0]

Nickel (CAS # 7440-02-0): 231-111-4

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

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): "236-751-8" As Aluminium nitrate [13473-90-0]

Aluminum Nitrate Nonahydrate (CAS # 7784-27-2): 236-751-8

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

Causes severe skin burns and eye damage. Causes serious eye irritation.

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). If eye irritation persists: Get medical attention. Wash contaminated clothing before reuse.

Store locked up.

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

Product Number: RMXCL4 Page 16 of 17



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: 1
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.

Product Number: RMXCL4 Page 17 of 17