

## Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** Mixed ICP Standard, 100 ppm Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg  
Mn, Mo, Na, Ni, Pb, Se, V, Zn in 5% HCl

**Product Number:** RPMX199N

**Other Identifying Product Numbers:** RPMX199N-250N

#### 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 2 | H315        | P264, P280, P302+P352, P321, P332+P313, P362 |
| Corrosive to Metals         | Category 1 | H290        | P234, P390, P406                             |

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## 2.2. GHS Label Elements

Pictograms:



Signal Word: **Warning**

Hazard Statements:

| Hazard Number | Hazard Statement            |
|---------------|-----------------------------|
| H290          | May be corrosive to metals. |
| H315          | Causes skin irritation.     |

Precautionary Statements:

| Precautionary Number | Precautionary Statement  |
|----------------------|--|
| P234                 | Keep only in original container.                                     |
| P264                 | Wash arms, hands and face thoroughly after handling.                 |
| P280                 | Wear protective gloves and eye protection.                           |
| P302+P352            | IF ON SKIN: Wash with plenty of soap and water.                      |
| P321                 | Specific treatment (Wash areas of contact with water.<br>).          |
| P332+P313            | If skin irritation occurs: Get medical attention.                    |
| P362                 | Take off contaminated clothing and wash it before reuse.             |
| P390                 | Absorb spillage to prevent material damage.                          |
| P406                 | Store in corrosive resistant container with a resistant inner liner. |

## 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 <sub>2</sub> O                     | 18.01 g/mol      | 7732-18-5  | 99.27   |
| Hydrochloric Acid          | HCl                                  | 36.46 g/mol      | 7647-01-0  | 0.34    |
| Magnesium Chloride         | MgCl <sub>2</sub>                    | 95.21 g/mol      | 7786-30-3  | < 0.1   |
| Nitric Acid                | HNO <sub>3</sub>                     | 63.01 g/mol      | 7697-37-2  | < 0.1   |
| Calcium Chloride Dihydrate | CaCl <sub>2</sub> ·2H <sub>2</sub> O | 147.02 g/mol     | 10035-04-8 | < 0.1   |
| Sodium Carbonate           | Na <sub>2</sub> CO <sub>3</sub>      | 105.98 g/mol     | 497-19-8   | < 0.1   |
| Ammonium Metavanadate      | NH <sub>4</sub> VO <sub>3</sub>      | 116.97 g/mol     | 7803-55-6  | < 0.1   |
| Potassium Carbonate        | K <sub>2</sub> CO <sub>3</sub>       | 138.20 g/mol     | 584-08-7   | < 0.1   |
| Barium Chloride            | BaCl <sub>2</sub>                    | 208.23 g/mol     | 10361-37-2 | < 0.1   |
| Molybdenum Trioxide        | MoO <sub>3</sub>                     | 143.93 g/mol     | 1313-27-5  | < 0.1   |
| Selenium Dioxide           | SeO <sub>2</sub>                     | 110.95 g/mol     | 7446-08-4  | < 0.1   |
| Zinc                       | Zn                                   | 65.40 g/mol      | 7440-66-6  | < 0.1   |
| Copper                     | Cu                                   | 63.54 g/mol      | 7440-50-8  | < 0.1   |
| Cobalt                     | Co                                   | 58.93 g/mol      | 7440-48-4  | < 0.1   |
| Chromium                   | Cr                                   | 51.99 g/mol      | 7440-47-3  | < 0.1   |
| Cadmium                    | Cd                                   | 112.41 g/mol     | 7440-43-9  | < 0.1   |
| Beryllium                  | Be                                   | 9.01 g/mol       | 7440-41-7  | < 0.1   |
| Arsenic                    | As                                   | 74.92 g/mol      | 7440-38-2  | < 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   |
| Iron                       | Fe                                   | 55.84 g/mol      | 7439-89-6  | < 0.1   |
| Aluminum                   | Al                                   | 26.98 g/mol      | 7429-90-5  | < 0.1   |
| Hydrofluoric Acid          | HF                                   | 20.00 g/mol      | 7664-39-3  | < 0.1   |

## SECTION 4: First-Aid Measures

### 4.1. General First Aid Information

**Eye Contact:** May cause slight irritation.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. May cause slight irritation.

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**Ingestion:** 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 skin irritation. CAUTION! Mildly corrosive. May cause irritation. Wash areas of contact with water. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

### 4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water.

). Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Di with water or milk. Do not induce vomiting. Call a physician if necessary.

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire (water or water spray). Neutralize with soda ash or slaked lime.

### 5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard. May react with metals to release flammable Hydrogen gas.

### 5.3. Special Protective Equipment for Firefighters

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

## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

### 6.2. Cleanup and Containment Methods and Materials

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always 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 Chloride (10361-37-2)    | TLV-TWA    | USA     | "0.5 mg/m <sup>3</sup> TWA (as Ba)" As Barium soluble compounds [RR-00049-7]  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Barium Chloride (10361-37-2)    | TWA        | USA     | "0.5 mg/m <sup>3</sup> 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 Chloride (10361-37-2)    | TLV-TWA    | USA     | 0.5 mg/m <sup>3</sup> TWA (as Ba)   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Barium Chloride (10361-37-2)    | TWA        | USA     | 0.5 mg/m <sup>3</sup> TWA (regulated under CAS 7440-39-3, as Ba)  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Molybdenum Trioxide (1313-27-5) | TWA        | USA     | "15 mg/m <sup>3</sup> TWA (total dust)" As Molybdenum, insoluble compounds [RR-00037-3]   | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Molybdenum Trioxide (1313-27-5) | TLV-TWA    | USA     | "10 mg/m <sup>3</sup> TWA (inhalable particulate matter, as Mo); 3 mg/m <sup>3</sup> TWA (respirable particulate matter, as Mo)" As Molybdenum insoluble compounds [RR-00037-3] | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Molybdenum Trioxide (1313-27-5) | TWA        | USA     | 15 mg/m <sup>3</sup> TWA (total dust)   | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Molybdenum Trioxide (1313-27-5) | TLV-TWA    | USA     | 10 mg/m <sup>3</sup> TWA (inhalable particulate matter, as Mo); 3 mg/m <sup>3</sup> TWA (respirable particulate matter, as Mo)  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Aluminum (7429-90-5)            | TWA        | USA     | 15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Aluminum (7429-90-5)            | TLV-TWA    | USA     | 1 mg/m <sup>3</sup> TWA (respirable particulate matter)   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Lead (7439-92-1)                | PEL        | USA     | 30 µg/m <sup>3</sup> Action Level (See 29 CFR 1910.1025); 50 µg/m <sup>3</sup> TWA  | U.S. - OSHA - Specifically Regulated Chemicals with PELs          |

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|                       |             |     |   |   |
|-----------------------|-------------|-----|---|---|
| Lead (7439-92-1)      | TWA         | USA | 50 µg/m³ TWA  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Lead (7439-92-1)      | TLV-TWA     | USA | 0.05 mg/m³ TWA  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Lead (7439-92-1)      | TLV-TWA     | USA | "0.05 mg/m³ TWA (as Pb)"<br>As Lead inorganic compounds [RR-00538-9]  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Lead (7439-92-1)      | PEL         | USA | "30 µg/m³ Action Level (See 29 CFR 1910.1025, as Pb); 50 µg/m³ TWA (as Pb)" As Lead, inorganic compounds [RR-00538-9]                 | U.S. - OSHA - Specifically Regulated Chemicals with PELs          |
| Lead (7439-92-1)      | 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)  | 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) | PEL-Ceiling | USA | "5 mg/m³ Ceiling (as Mn)"<br>As Manganese compounds [RR-00602-0]  | U.S. - OSHA - Final PELs - Ceiling Limits                         |
| Manganese (7439-96-5) | TLV-TWA     | USA | 0.02 mg/m³ TWA (respirable particulate matter, as Mn); 0.1 mg/m³ TWA (inhalable particulate matter, as Mn)                            | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Nickel (7440-02-0)    | TLV-TWA     | USA | 1.5 mg/m³ TWA (inhalable particulate matter)  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Nickel (7440-02-0)    | TWA         | USA | 1 mg/m³ TWA   | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Arsenic (7440-38-2)   | TLV-TWA     | USA | 0.01 mg/m³ TWA  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Arsenic (7440-38-2)   | PEL         | USA | "10 µg/m³ TWA (See 29 CFR 1910.1018; except Arsine, as As); 5 µg/m³ Action Level (as As)" As Inorganic arsenic compounds [RR-00065-7] | U.S. - OSHA - Specifically Regulated Chemicals with PELs          |

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|-----------------------|-------------|-----|--|---|
| Arsenic (7440-38-2)   | TWA         | USA | "10 µg/m³ TWA (as As)" As Arsenic, inorganic compounds [RR-00065-7]  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Arsenic (7440-38-2)   | TLV-TWA     | USA | "0.01 mg/m³ TWA (as As)" As Arsenic inorganic compounds [RR-00065-7]   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Beryllium (7440-41-7) | PEL         | USA | 0.2 µg/m³ TWA (See 29 CFR 1910.1024); 0.1 µg/m³ Action Level; 2.0 µg/m³ STEL (15 min)  | U.S. - OSHA - Specifically Regulated Chemicals with PELs          |
| Beryllium (7440-41-7) | PEL-Ceiling | USA | 2 µg/m³ Ceiling  | U.S. - OSHA - Final PELs - Ceiling Limits                         |
| Beryllium (7440-41-7) | TWA         | USA | 0.2 µg/m³ TWA  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Beryllium (7440-41-7) | PEL-STEL    | USA | 2 µg/m³ STEL (see 29 CFR 1910.1024)  | U.S. - OSHA - Final PELs - Short Term Exposure Limits             |
| Beryllium (7440-41-7) | TLV-TWA     | USA | 0.00005 mg/m³ TWA (inhalable particulate matter)   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Beryllium (7440-41-7) | PEL-Ceiling | USA | "2 µg/m³ Ceiling (as Be)" As Beryllium compounds [RR-00557-2]  | U.S. - OSHA - Final PELs - Ceiling Limits                         |
| Beryllium (7440-41-7) | TLV-TWA     | USA | "0.00005 mg/m³ TWA (inhalable particulate matter, as Be)" As Beryllium compounds [RR-00557-2]  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Beryllium (7440-41-7) | TWA         | USA | "0.2 µg/m³ TWA (as Be)" As Beryllium compounds [RR-00557-2]  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Cadmium (7440-43-9)   | PEL-Ceiling | USA | 0.3 mg/m³ Ceiling (applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect, fume); 0.6 mg/m³ Ceiling (applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect, dust) | U.S. - OSHA - Final PELs - Ceiling Limits                         |

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|                              |         |     |  |   |
|------------------------------|---------|-----|--|---|
| Cadmium (7440-43-9)          | PEL     | USA | 5 µg/m³ TWA (See 29 CFR 1910.1027); 2.5 µg/m³ Action Level   | U.S. - OSHA - Specifically Regulated Chemicals with PELs          |
| Cadmium (7440-43-9)          | TLV-TWA | USA | 0.01 mg/m³ TWA; 0.002 mg/m³ TWA (respirable particulate matter)  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Cadmium (7440-43-9)          | TWA     | USA | 5 µg/m³ TWA  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Cadmium (7440-43-9)          | TLV-TWA | USA | "0.01 mg/m³ TWA (as Cd); 0.002 mg/m³ TWA (respirable particulate matter, as Cd)" As Cadmium compounds [RR-00559-4] | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Cadmium (7440-43-9)          | PEL     | USA | "5 µg/m³ TWA (See 29 CFR 1910.1027, as Cd); 2.5 µg/m³ Action Level (as Cd)" As Cadmium compounds [RR-00559-4]      | U.S. - OSHA - Specifically Regulated Chemicals with PELs          |
| Chromium (7440-47-3)         | TWA     | USA | 1 mg/m³ TWA  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Chromium (7440-47-3)         | TLV-TWA | USA | 0.5 mg/m³ TWA (inhalable particulate matter)   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Cobalt (7440-48-4)           | TWA     | USA | 0.1 mg/m³ TWA (dust and fume)  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Cobalt (7440-48-4)           | TLV-TWA | USA | 0.02 mg/m³ TWA (inhalable particulate matter)  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Cobalt (7440-48-4)           | TLV-TWA | USA | 0.02 mg/m³ TWA (inhalable particulate matter, as Co)   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Copper (7440-50-8)           | TWA     | USA | 0.1 mg/m³ TWA (fume); 1 mg/m³ TWA (dust and mist)  | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |
| Copper (7440-50-8)           | TLV-TWA | USA | 0.2 mg/m³ TWA (fume)   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Copper (7440-50-8)           | TLV-TWA | USA | "1 mg/m³ 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/m³ TWA (dust and mist, as Cu)" As Copper compounds [RR-00595-8]  | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Selenium Dioxide (7446-08-4) | TWA     | USA | "0.2 mg/m³ TWA (as Se)" As Selenium compounds [RR-00612-2]   | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)          |



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|                               |             |     |  |  |
|-------------------------------|-------------|-----|--|--|
| Selenium Dioxide (7446-08-4)  | TLV-TWA     | USA | "0.2 mg/m <sup>3</sup> TWA (as Se)" As Selenium compounds [RR-00612-2] | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |
| Selenium Dioxide (7446-08-4)  | TLV-TWA     | USA | "0.2 mg/m <sup>3</sup> TWA (as Se)" As Selenium compounds [RR-00612-2] | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |
| Selenium Dioxide (7446-08-4)  | TWA         | USA | "0.2 mg/m <sup>3</sup> TWA (as Se)" As Selenium compounds [RR-00612-2] | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)               |
| Selenium Dioxide (7446-08-4)  | TLV-TWA     | USA | 0.2 mg/m <sup>3</sup> TWA (as Se)                                      | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |
| Selenium Dioxide (7446-08-4)  | TWA         | USA | 0.2 mg/m <sup>3</sup> TWA (as Se)                                      | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)               |
| Selenium Dioxide (7446-08-4)  | TLV-TWA     | USA | "0.2 mg/m <sup>3</sup> TWA (as Se)" As Selenium compounds [RR-00612-2] | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |
| Selenium Dioxide (7446-08-4)  | TWA         | USA | "0.2 mg/m <sup>3</sup> TWA (as Se)" As Selenium compounds [RR-00612-2] | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)               |
| Hydrochloric Acid (7647-01-0) | TLV-Ceiling | USA | 2 ppm Ceiling  | ACGIH - Threshold Limit Values - Ceilings (TLV-C)                      |
| Hydrochloric Acid (7647-01-0) | PEL-Ceiling | USA | 5 ppm Ceiling; 7 mg/m <sup>3</sup> Ceiling                             | U.S. - OSHA - Final PELs - Ceiling Limits                              |
| Hydrofluoric Acid (7664-39-3) | TLV-TWA     | USA | "2.5 mg/m <sup>3</sup> TWA (as F)" As Fluorides [RR-02792-9]           | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |
| Hydrofluoric Acid (7664-39-3) | TWA         | USA | "2.5 mg/m <sup>3</sup> TWA (as F)" As Fluorides [RR-02792-9]           | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)               |
| Hydrofluoric Acid (7664-39-3) | TLV-TWA     | USA | 0.5 ppm TWA (as F)   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |
| Hydrofluoric Acid (7664-39-3) | TLV-Ceiling | USA | 2 ppm Ceiling (as F)   | ACGIH - Threshold Limit Values - Ceilings (TLV-C)                      |
| Hydrofluoric Acid (7664-39-3) | TWA         | USA | 3 ppm TWA (as F)   | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)               |
| Hydrofluoric Acid (7664-39-3) | TWA         | USA | 2.5 mg/m <sup>3</sup> TWA (as F)                                       | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)               |
| Hydrofluoric Acid (7664-39-3) | TLV-TWA     | USA | 2.5 mg/m <sup>3</sup> TWA (as F)                                       | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |
| Nitric Acid (7697-37-2)       | TWA         | USA | 2 ppm TWA; 5 mg/m <sup>3</sup> 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) |

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|                         |         |     |           |   |
|-------------------------|---------|-----|-----------|---|
| Nitric Acid (7697-37-2) | TLV-TWA | USA | 2 ppm TWA | 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:** 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.

## 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 0.0°C

**Initial Boiling Point/Range:** Approximately 100.0°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:** 1.00

**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.

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## 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. Most metals, Alkalies, active metals, Cyanides, Sulfides, Sulfites, Metal Oxides, Formaldehyde.

### 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:

LD50, Oral, Rabbit (Hydrochloric Acid) 900 mg/kg; Details of toxic effects not reported other than lethal dose value. LCLo, inhalation, human: 3000 ppm/5 minutes: No toxic effects noted.

#### Skin Corrosion and Irritation:

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water.

). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

#### Serious Eye Damage and Irritation:

Not applicable.

#### Respiratory Sensitization:

Not applicable.

#### Skin Sensitization:

Not applicable.

#### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

Not applicable.

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**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.

**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.

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### SECTION 14: Transportation Information

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

**Sizes:** 250 mL, 500 mL

**UN Number:** UN3264

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

**Hazard Class:** 8

**Packing Group:** III

**Hazard Label(s):**



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

**Sizes:** 250 mL, 500 mL

**UN Number:** UN3264

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

**Hazard Class:** 8

**Packing Group:** III

**Hazard Label(s):**



#### 14.3 Transportation of Dangerous Goods (TDG, Canada)

**Sizes:** 250 mL, 500 mL

**UN Number:** UN3264

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

**Hazard Class:** 8

**Packing Group:** III

**Hazard Label(s):**





## Safety Data Sheet

### SECTION 15: Regulatory Information

#### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Lead (CAS # 7439-92-1): "30 µg/m<sup>3</sup> Action Level (See 29 CFR 1910.1025, as Pb); 50 µg/m<sup>3</sup> TWA (See 29 CFR 1910.1025, as Pb)" As Lead, inorganic compounds [RR-00538-9]

Lead (CAS # 7439-92-1): 30 µg/m<sup>3</sup> Action Level (See 29 CFR 1910.1025); 50 µg/m<sup>3</sup> TWA (See 29 CFR 1910.1025)

Arsenic (CAS # 7440-38-2): "10 µg/m<sup>3</sup> TWA (See 29 CFR 1910.1018, except Arsine, as As); 5 µg/m<sup>3</sup> Action Level (See 29 CFR 1910.1018, except Arsine, as As)" As Inorganic arsenic compounds [RR-00065-7]

Beryllium (CAS # 7440-41-7): 0.2 µg/m<sup>3</sup> TWA (See 29 CFR 1910.1024); 0.1 µg/m<sup>3</sup> Action Level (See 29 CFR 1910.1024); 2.0 µg/m<sup>3</sup> STEL (See 29 CFR 1910.1024, 15 min)

Cadmium (CAS # 7440-43-9): "5 µg/m<sup>3</sup> TWA (See 29 CFR 1910.1027, as Cd); 2.5 µg/m<sup>3</sup> Action Level (as Cd)" As Cadmium compounds [RR-00559-4]

Cadmium (CAS # 7440-43-9): 5 µg/m<sup>3</sup> TWA (See 29 CFR 1910.1027); 2.5 µg/m<sup>3</sup> Action Level

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

Hydrochloric Acid (CAS # 7647-01-0): 500 lb TPQ (gas only)

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb EPCRA RQ (gas only)

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

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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 µm); 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 µm)

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 µm); 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 µm)

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

Arsenic (CAS # 7440-38-2): 1 lb final RQ; 0.454 kg final RQ

Beryllium (CAS # 7440-41-7): 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 µm); 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 µm)

Cadmium (CAS # 7440-43-9): 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 µm); 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 µm)

Chromium (CAS # 7440-47-3): 10 lb final RQ; 4.54 kg final RQ

Chromium (CAS # 7440-47-3): 5000 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 µm); 2270 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 µm)

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

Barium Chloride (CAS # 10361-37-2): "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 Chloride (CAS # 10361-37-2): 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)

Molybdenum Trioxide (CAS # 1313-27-5): 0.1 % de minimis concentration

Aluminum (CAS # 7429-90-5): 1.0 % de minimis concentration (dust or fume only)

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, listed under Chemical Category N420" As Inorganic lead compounds [RR-00538-4]  
"not eligible for the de minimis exemption" As Lead compounds [RR-00630-4]

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

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

Manganese (CAS # 7439-96-5): "1.0 % de minimis concentration (includes any unique chemical substance that contains Manganese as part of that chemical's infrastructure, listed under Chemical Category N450)" As Manganese compounds [RR-00602-0]

Manganese (CAS # 7439-96-5): 1.0 % de minimis concentration

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

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



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### **15.5. Massachusetts Right-to-Know Substance List**

Molybdenum Trioxide (CAS # 1313-27-5): Present  
Aluminum (CAS # 7429-90-5): Present  
Lead (CAS # 7439-92-1): Teratogen  
Manganese (CAS # 7439-96-5): Present  
Nickel (CAS # 7440-02-0): Carcinogen; Extraordinarily hazardous  
Arsenic (CAS # 7440-38-2): Carcinogen; Extraordinarily hazardous  
Beryllium (CAS # 7440-41-7): Carcinogen; Extraordinarily hazardous  
Cadmium (CAS # 7440-43-9): Carcinogen; Extraordinarily hazardous  
Chromium (CAS # 7440-47-3): Carcinogen; Extraordinarily hazardous  
Cobalt (CAS # 7440-48-4): Present  
Copper (CAS # 7440-50-8): Present  
Zinc (CAS # 7440-66-6): Present  
Selenium Dioxide (CAS # 7446-08-4): Present  
Hydrochloric Acid (CAS # 7647-01-0): Extraordinarily hazardous  
Hydrofluoric Acid (CAS # 7664-39-3): Extraordinarily hazardous  
Nitric Acid (CAS # 7697-37-2): Extraordinarily hazardous  
Ammonium Metavanadate (CAS # 7803-55-6): Present



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### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Barium Chloride (CAS # 10361-37-2): "Environmental hazard" As Barium compounds [RR-00555-0]  
Barium Chloride (CAS # 10361-37-2): "Present" As Barium compounds [RR-00555-0]  
Barium Chloride (CAS # 10361-37-2): Environmental hazard  
Barium Chloride (CAS # 10361-37-2): Present  
Molybdenum Trioxide (CAS # 1313-27-5): Environmental hazard  
Molybdenum Trioxide (CAS # 1313-27-5): Present  
Aluminum (CAS # 7429-90-5): Environmental hazard; Present (dust)  
Aluminum (CAS # 7429-90-5): Present  
Lead (CAS # 7439-92-1): "Environmental hazard" As Lead compounds [RR-00630-4]  
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 compounds [RR-00602-0]  
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): "Present" As Nickel compounds [RR-00800-4]  
Nickel (CAS # 7440-02-0): Environmental hazard  
Nickel (CAS # 7440-02-0): Environmental hazard; Special hazardous substance  
Nickel (CAS # 7440-02-0): Present  
Arsenic (CAS # 7440-38-2): "Environmental hazard" As Arsenic compounds [RR-00625-7]  
Arsenic (CAS # 7440-38-2): "Present" As Arsenic compounds [RR-00625-7]  
Arsenic (CAS # 7440-38-2): Environmental hazard (including inorganic); Special hazardous substance  
Arsenic (CAS # 7440-38-2): Present  
Arsenic (CAS # 7440-38-2): Present (including inorganic)  
Beryllium (CAS # 7440-41-7): "Environmental hazard" As Beryllium compounds [RR-00557-2]  
Beryllium (CAS # 7440-41-7): "Present" As Beryllium compounds [RR-00557-2]  
Beryllium (CAS # 7440-41-7): Environmental hazard (dust; metal); Special hazardous substance  
Beryllium (CAS # 7440-41-7): Present  
Beryllium (CAS # 7440-41-7): Present (dust; metal)  
Cadmium (CAS # 7440-43-9): "Environmental hazard" As

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

Barium Chloride (CAS # 10361-37-2): "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 Chloride (CAS # 10361-37-2): "sn 2146" As Barium compounds [RR-00555-0]

Barium Chloride (CAS # 10361-37-2): sn 2146

Barium Chloride (CAS # 10361-37-2): 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)

Molybdenum Trioxide (CAS # 1313-27-5): sn 1312

Molybdenum Trioxide (CAS # 1313-27-5): SN 1312 500 lb TPQ

Aluminum (CAS # 7429-90-5): flammable - third degree

Aluminum (CAS # 7429-90-5): sn 0054

Aluminum (CAS # 7429-90-5): SN 0054 500 lb TPQ (dust or fume)

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

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

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

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

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

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

Manganese (CAS # 7439-96-5): "SN 2324 500 lb TPQ (Category Code N450. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Manganese compounds [RR-00602-0]

Manganese (CAS # 7439-96-5): "sn 2324" As Manganese compounds [RR-00602-0]

Manganese (CAS # 7439-96-5): flammable - third degree

Manganese (CAS # 7439-96-5): sn 1155

Manganese (CAS # 7439-96-5): SN 1155 500 lb TPQ

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

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



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### 15.8. California Proposition 65

Molybdenum Trioxide (CAS # 1313-27-5): carcinogen, 3/19/2021

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

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, 5/7/2004" As Nickel compounds [RR-00800-4]

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

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

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

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

Beryllium (CAS # 7440-41-7): "carcinogen, 10/1/1987" As Beryllium compounds [RR-00557-2]

Beryllium (CAS # 7440-41-7): 0.1 µg/day NSRL

Beryllium (CAS # 7440-41-7): carcinogen, 10/1/1987

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

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

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

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

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

Cobalt (CAS # 7440-48-4): carcinogen, 7/1/1992 (powder)



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

Calcium Chloride Dihydrate (CAS # 10035-04-8): Present (DSL)  
Barium Chloride (CAS # 10361-37-2): Present (DSL)  
Molybdenum Trioxide (CAS # 1313-27-5): Present (DSL)  
Sodium Carbonate (CAS # 497-19-8): Present (DSL)  
Potassium Carbonate (CAS # 584-08-7): Present (DSL)  
Aluminum (CAS # 7429-90-5): Present (DSL)  
Iron (CAS # 7439-89-6): Present (DSL)  
Lead (CAS # 7439-92-1): Present (DSL)  
Manganese (CAS # 7439-96-5): Present (DSL)  
Nickel (CAS # 7440-02-0): Present (DSL)  
Arsenic (CAS # 7440-38-2): Present (DSL)  
Beryllium (CAS # 7440-41-7): Present (DSL)  
Cadmium (CAS # 7440-43-9): Present (DSL)  
Chromium (CAS # 7440-47-3): Present (DSL)  
Cobalt (CAS # 7440-48-4): Present (DSL)  
Copper (CAS # 7440-50-8): Present (DSL)  
Zinc (CAS # 7440-66-6): Present (DSL)  
Selenium Dioxide (CAS # 7446-08-4): Present (DSL)  
Selenium Dioxide (CAS # 7446-08-4): Present (NDSL)  
Hydrochloric Acid (CAS # 7647-01-0): 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)  
Magnesium Chloride (CAS # 7786-30-3): Present (DSL)  
Ammonium Metavanadate (CAS # 7803-55-6): 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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Calcium Chloride Dihydrate (CAS # 10035-04-8): Present (ACTIVE)  
Barium Chloride (CAS # 10361-37-2): Present (ACTIVE)  
Molybdenum Trioxide (CAS # 1313-27-5): Present (ACTIVE)  
Sodium Carbonate (CAS # 497-19-8): Present (ACTIVE)  
Potassium Carbonate (CAS # 584-08-7): Present (ACTIVE)  
Aluminum (CAS # 7429-90-5): Present (ACTIVE)  
Iron (CAS # 7439-89-6): Present (ACTIVE)  
Lead (CAS # 7439-92-1): Present (ACTIVE)  
Manganese (CAS # 7439-96-5): Present (ACTIVE)  
Nickel (CAS # 7440-02-0): Present (ACTIVE)  
Arsenic (CAS # 7440-38-2): Present (ACTIVE)  
Beryllium (CAS # 7440-41-7): Present (ACTIVE)  
Cadmium (CAS # 7440-43-9): Present (ACTIVE)  
Chromium (CAS # 7440-47-3): Present (ACTIVE)  
Cobalt (CAS # 7440-48-4): Present (ACTIVE)  
Copper (CAS # 7440-50-8): Present (ACTIVE)  
Zinc (CAS # 7440-66-6): Present (ACTIVE)  
Selenium Dioxide (CAS # 7446-08-4): Present (ACTIVE)  
Hydrochloric Acid (CAS # 7647-01-0): Present (ACTIVE)  
Hydrofluoric Acid (CAS # 7664-39-3): Present (ACTIVE)  
Nitric Acid (CAS # 7697-37-2): Present (ACTIVE)  
Water (CAS # 7732-18-5): Present (ACTIVE)  
Magnesium Chloride (CAS # 7786-30-3): Present (ACTIVE)  
Ammonium Metavanadate (CAS # 7803-55-6): 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)

Calcium Chloride Dihydrate (CAS # 10035-04-8): 233-140-8  
Barium Chloride (CAS # 10361-37-2): 233-788-1  
Molybdenum Trioxide (CAS # 1313-27-5): 215-204-7  
Molybdenum Trioxide (CAS # 1313-27-5): 234-321-4  
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  
Potassium Carbonate (CAS # 584-08-7): 241-378-9  
Aluminum (CAS # 7429-90-5): 231-072-3  
Iron (CAS # 7439-89-6): 231-096-4  
Lead (CAS # 7439-92-1): 231-100-4  
Manganese (CAS # 7439-96-5): 231-105-1  
Nickel (CAS # 7440-02-0): 231-111-4  
Arsenic (CAS # 7440-38-2): 231-148-6  
Beryllium (CAS # 7440-41-7): 231-150-7  
Cadmium (CAS # 7440-43-9): 231-152-8  
Chromium (CAS # 7440-47-3): 231-157-5  
Cobalt (CAS # 7440-48-4): 231-158-0  
Copper (CAS # 7440-50-8): 231-159-6  
Zinc (CAS # 7440-66-6): 231-175-3  
Selenium Dioxide (CAS # 7446-08-4): 231-194-7  
Selenium Dioxide (CAS # 7446-08-4): 235-738-4  
Hydrochloric Acid (CAS # 7647-01-0): 231-595-7  
Hydrofluoric Acid (CAS # 7664-39-3): 231-634-8  
Nitric Acid (CAS # 7697-37-2): 231-714-2  
Water (CAS # 7732-18-5): 231-791-2  
Magnesium Chloride (CAS # 7786-30-3): 232-094-6  
Ammonium Metavanadate (CAS # 7803-55-6): 232-261-3

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## SECTION 16: Other Information

### 16.1. Full Text of Hazard Statements and Precautionary Statements

May be corrosive to metals. Causes skin irritation.

Keep only in original container. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection.

IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water.

). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. Absorb spillage to prevent material damage.

Store in corrosive resistant container with a resistant inner liner.

### 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.

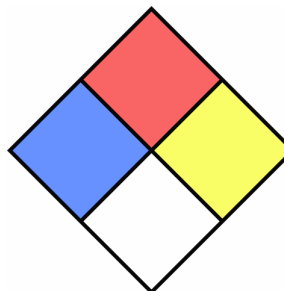
### 16.3. National Fire Protection Association (NFPA) Rating

**Health:**

**Flammability:**

**Reactivity:**

**Special Hazard:**



### 16.4. Document Revision

**Last Revision Date:** 2024-08-10

## 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.