



Safety Data Sheet

Classified according to WHMIS 2015

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Multichem-17 Standard
in 7% Nitric Acid

Product Number: RMULTI17

Other Identifying Product Numbers: RMULTI17-1N

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

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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: |
|--|------------|-------------------|---|
| Acute Toxicity - Inhalation | Category 2 | H330 | P260, P271, P285, P304+P340, P310, P320, P403+P233, P405, P501 |
| Skin Corrosion / Irritation | Category 1 | H314 | P260, P264, P280, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P321, P305+P351+P338, P405, P501 |
| Eye Damage / Irritation | Category 1 | H318 | P280, P305+P351+P338, P310 |
| Corrosive to Metals | Category 1 | H290 | P234, P390, P406 |
| Hazardous to the Aquatic Environment (Acute) | Category 2 | H401 | P273, P501 |
| Hazardous to the Aquatic Environment (Chronic) | Category 2 | H411 | P273, P391, P501 |

2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

| Hazard Number | Hazard Statement |
|---------------|--|
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H330 | Fatal if inhaled. |
| H401 | Toxic to aquatic life. |
| H411 | Toxic to aquatic life with long lasting effects. |

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Precautionary Statements:

| Precautionary Number | Precautionary Statement |
|----------------------|--|
| P234 | Keep only in original container. |
| P260 | Do not breathe fumes, mist, vapors, or spray. |
| P264 | Wash arms, hands and face thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves and eye protection. |
| P285 | In case of inadequate ventilation wear respiratory 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. |
| P320 | Specific treatment is urgent (Wash areas of contact with water immediately). |
| P321 | Specific treatment (Wash areas of contact with water immediately). |
| P363 | Wash contaminated clothing before reuse. |
| P390 | Absorb spillage to prevent material damage. |
| P391 | Collect spillage. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P406 | Store in corrosive resistant container with a resistant inner liner. |
| P501 | Dispose of contents in accordance with local, state, federal and international regulations. |

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

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SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

| Chemical Name | Formula | Molecular Weight | CAS Number | Weight% |
|---------------------|-----------------------------------|------------------|------------|---------|
| Water | H ₂ O | 18.01 g/mol | 7732-18-5 | 92.09 |
| Nitric Acid | HNO ₃ | 63.01 g/mol | 7697-37-2 | 7.55 |
| Calcium Carbonate | CaCO ₃ | 100.09 g/mol | 471-34-1 | 0.24 |
| Potassium Carbonate | K ₂ CO ₃ | 138.20 g/mol | 584-08-7 | < 0.1 |
| Magnesium | Mg | 24.30 g/mol | 7439-95-4 | < 0.1 |
| Boric Acid | H ₃ BO ₃ | 61.83 g/mol | 10043-35-3 | < 0.1 |
| Strontium Carbonate | SrCO ₃ | 147.62 g/mol | 1633-05-2 | < 0.1 |
| Hydrofluoric Acid | HF | 20.00 g/mol | 7664-39-3 | < 0.1 |
| Silicon | Si | 28.08 g/mol | 7440-21-3 | < 0.1 |
| Barium Nitrate | Ba(NO ₃) ₂ | 261.33 g/mol | 10022-31-8 | < 0.1 |
| Iron | Fe | 55.84 g/mol | 7439-89-6 | < 0.1 |
| Ammonium Hydroxide | NH ₄ OH | 35.04 g/mol | 1336-21-6 | < 0.1 |
| Manganese | Mn | 54.93 g/mol | 7439-96-5 | < 0.1 |
| Zinc | Zn | 65.40 g/mol | 7440-66-6 | < 0.1 |
| Lead | Pb | 207.2 g/mol | 7439-92-1 | < 0.1 |

SECTION 4: First-Aid Measures

4.1. General First Aid Information

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

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

Causes severe skin burns and eye damage. Causes serious eye damage. Fatal if inhaled.

4.3. Medical Attention or Special Treatment Needed

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



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SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

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. In case of inadequate ventilation wear respiratory 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. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

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SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|--------------------------------|------------|---------|---|--|
| Barium Nitrate (10022-31-8) | TLV-TWA | USA | "0.5 mg/m ³ TWA (as Ba)" As Barium soluble compounds [RR-00049-7] | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Barium Nitrate (10022-31-8) | TWA | USA | "0.5 mg/m ³ TWA (regulated under CAS 7440-39-3, as Ba)" As Barium, soluble compounds [RR-00049-7] | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Barium Nitrate (10022-31-8) | TLV-TWA | USA | 0.5 mg/m ³ TWA (as Ba) | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Barium Nitrate (10022-31-8) | TWA | USA | 0.5 mg/m ³ TWA (regulated under CAS 7440-39-3, as Ba) | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Boric Acid (10043-35-3) | TLV-TWA | USA | 2 mg/m ³ TWA (inhalable particulate matter, listed under Borate compounds, inorganic) | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Boric Acid (10043-35-3) | TLV-STEL | USA | 6 mg/m ³ STEL (inhalable particulate matter, listed under Borate compounds, inorganic) | ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL) |
| Boric Acid (10043-35-3) | TLV-TWA | USA | "2 mg/m ³ TWA (inhalable particulate matter)" As Borate compounds, inorganic [RR-33876-1] | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Boric Acid (10043-35-3) | TLV-STEL | USA | "6 mg/m ³ STEL (inhalable particulate matter)" As Borate compounds, inorganic [RR-33876-1] | ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL) |
| Boric Acid (10043-35-3) | TLV-TWA | USA | 2 mg/m ³ TWA (inhalable particulate matter) | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Boric Acid (10043-35-3) | TLV-STEL | USA | 6 mg/m ³ STEL (inhalable particulate matter) | ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL) |
| Ammonium Hydroxide (1336-21-6) | TLV-TWA | USA | 25 ppm TWA | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |

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|--------------------------------|-------------|-----|--|--|
| Ammonium Hydroxide (1336-21-6) | TLV-STEL | USA | 35 ppm STEL | ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL) |
| Ammonium Hydroxide (1336-21-6) | TWA | USA | 50 ppm TWA; 35 mg/m ³ TWA | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Lead (7439-92-1) | PEL | USA | 30 µg/m ³ Action Level (See 29 CFR 1910.1025); 50 µg/m ³ TWA | U.S. - OSHA - Specifically Regulated Chemicals with PELs |
| Lead (7439-92-1) | TLV-TWA | USA | 0.05 mg/m ³ TWA | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Lead (7439-92-1) | TWA | USA | 50 µg/m ³ TWA | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Manganese (7439-96-5) | PEL-Ceiling | USA | "5 mg/m ³ Ceiling (as Mn)" As Manganese compounds [RR-00602-0] | U.S. - OSHA - Final PELs - Ceiling Limits |
| Manganese (7439-96-5) | PEL-Ceiling | USA | "5 mg/m ³ Ceiling (as Mn)" As Manganese compounds [RR-00602-0] | U.S. - OSHA - Final PELs - Ceiling Limits |
| Manganese (7439-96-5) | PEL-Ceiling | USA | "5 mg/m ³ Ceiling (as Mn)" As Manganese compounds [RR-00602-0] | U.S. - OSHA - Final PELs - Ceiling Limits |
| Manganese (7439-96-5) | PEL-Ceiling | USA | "5 mg/m ³ Ceiling (as Mn)" As Manganese compounds [RR-00602-0] | U.S. - OSHA - Final PELs - Ceiling Limits |
| Manganese (7439-96-5) | PEL-Ceiling | USA | "5 mg/m ³ Ceiling (as Mn)" As Manganese compounds [RR-00602-0] | U.S. - OSHA - Final PELs - Ceiling Limits |
| Manganese (7439-96-5) | TLV-TWA | USA | 0.02 mg/m ³ TWA (respirable particulate matter); 0.1 mg/m ³ TWA (inhalable particulate matter) | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Manganese (7439-96-5) | PEL-Ceiling | USA | 5 mg/m ³ Ceiling (fume) | U.S. - OSHA - Final PELs - Ceiling Limits |
| Manganese (7439-96-5) | PEL-Ceiling | USA | "5 mg/m ³ Ceiling (as Mn)" As Manganese compounds [RR-00602-0] | U.S. - OSHA - Final PELs - Ceiling Limits |

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|-------------------------------|-------------|-----|--|--|
| Manganese (7439-96-5) | TLV-TWA | USA | 0.02 mg/m ³ TWA (respirable particulate matter, as Mn); 0.1 mg/m ³ TWA (inhalable particulate matter, as Mn) | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Silicon (7440-21-3) | TWA | USA | 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Hydrofluoric Acid (7664-39-3) | TWA | USA | "2.5 mg/m ³ TWA (as F)" As Fluorides [RR-02792-9] | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Hydrofluoric Acid (7664-39-3) | TLV-TWA | USA | "2.5 mg/m ³ TWA (as F)" As Fluorides [RR-02792-9] | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Hydrofluoric Acid (7664-39-3) | TLV-TWA | USA | 0.5 ppm TWA (as F) | 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) | 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/m ³ TWA (as F) | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Hydrofluoric Acid (7664-39-3) | TWA | USA | 2.5 mg/m ³ TWA (as F) | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Nitric Acid (7697-37-2) | TWA | USA | 2 ppm TWA; 5 mg/m ³ TWA | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Nitric Acid (7697-37-2) | TLV-TWA | USA | 2 ppm TWA | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Nitric Acid (7697-37-2) | TLV-STEL | USA | 4 ppm STEL | ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL) |

8.2. Exposure Controls

Engineering Controls: Use only outdoors or in a well-ventilated area.

Respiratory Protection: In case of inadequate ventilation wear respiratory protection.

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. In case of inadequate ventilation wear respiratory protection.



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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: Acidic

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: 1.04

Solubility: Miscible

Partition Coefficient: Data not available.

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

Explosive Properties: Data not available.

Oxidizing Properties: Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Keep only in original container. Strong bases, strong reducing agents, metallic powders.

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:

Fatal if inhaled. Do not breathe fumes, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment is urgent (Wash areas of contact with water immediately). Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

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:

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

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.



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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.

Toxic to aquatic life with long lasting effects. Avoid release to the environment. Collect spillage. 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.



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SECTION 14: Transportation Information

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

Sizes: 1 L

UN Number: UN3264

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

Hazard Class: 8

Packing Group: III

Hazard Label(s):



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

Sizes: 1 L

UN Number: UN3264

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

Hazard Class: 8

Packing Group: III

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 1 L

UN Number: UN3264

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

Hazard Class: 8

Packing Group: III

Hazard Label(s):



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SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

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

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

Ammonium Hydroxide (CAS # 1336-21-6): 100 lb EPCRA RQ

Ammonium Hydroxide (CAS # 1336-21-6): 500 lb TPQ

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

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

Ammonium Hydroxide (CAS # 1336-21-6): 100 lb final RQ; 45.4 kg final RQ

Ammonium Hydroxide (CAS # 1336-21-6): 1000 lb final RQ; 454 kg final RQ

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)

Zinc (CAS # 7440-66-6): 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); 1000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

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

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

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

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

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

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

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

Ammonium Hydroxide (CAS # 1336-21-6): "1.0 % de minimis concentration (10% of total aqueous Ammonia is reportable under this listing)" As Aqueous ammonia from water dissociable ammonium salts and other sources [RR-47925-4]

Ammonium Hydroxide (CAS # 1336-21-6): 1.0 % de minimis concentration (10% of total aqueous Ammonia is reportable under this listing)

Ammonium Hydroxide (CAS # 1336-21-6): 1.0 % de minimis concentration (includes anhydrous Ammonia and aqueous Ammonia from water dissociable Ammonium salts and other sources, 10% of total aqueous Ammonia is reportable under this listing)

Lead (CAS # 7439-92-1): 0.1 % Supplier notification limit; 0.1 % de minimis concentration (when contained in stainless steel, brass, or bronze)

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 al

15.5. Massachusetts Right-to-Know Substance List

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

Ammonium Hydroxide (CAS # 1336-21-6): Extraordinarily hazardous (including anhydrous)

Ammonium Hydroxide (CAS # 1336-21-6): Present

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

Magnesium (CAS # 7439-95-4): Present

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

Silicon (CAS # 7440-21-3): Present (dust)

Zinc (CAS # 7440-66-6): Present

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

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

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15.6. Pennsylvania Right-to-Know Hazardous Substances

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

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

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

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

Ammonium Hydroxide (CAS # 1336-21-6): Environmental hazard

Ammonium Hydroxide (CAS # 1336-21-6): Present

Lead (CAS # 7439-92-1): Environmental hazard

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

Magnesium (CAS # 7439-95-4): 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

Silicon (CAS # 7440-21-3): Present

Zinc (CAS # 7440-66-6): "Environmental hazard" As Zinc compounds [RR-00578-7]

Zinc (CAS # 7440-66-6): "Present" As Zinc compounds [RR-00578-7]

Zinc (CAS # 7440-66-6): Environmental hazard

Zinc (CAS # 7440-66-6): 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" As Ethyl alcohol and water [RR-00802-6]

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

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

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

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

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

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

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

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

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

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

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

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

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

Boric Acid (CAS # 10043-35-3): "sn 0241" As Borate compounds, inorganic [RR-33876-1]

Boric Acid (CAS # 10043-35-3): sn 0241

Ammonium Hydroxide (CAS # 1336-21-6): corrosive

Ammonium Hydroxide (CAS # 1336-21-6): sn 0084

Ammonium Hydroxide (CAS # 1336-21-6): SN 0084 500 lb TPQ (The reportable quantity for anhydrous Ammonia is based on 100% of the anhydrous Ammonia. The reportable quantity for aqueous Ammonia is the Ammonia equivalent weight for concentrations of $\geq 20\%$.)

Ammonium Hydroxide (CAS # 1336-21-6): sn 0103

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

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

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

Magnesium (C)

15.8. California Proposition 65

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

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

Barium Nitrate (CAS # 10022-31-8): Present (DSL)
Boric Acid (CAS # 10043-35-3): Present (DSL)
Ammonium Hydroxide (CAS # 1336-21-6): Present (DSL)
Strontium Carbonate (CAS # 1633-05-2): Present (DSL)
Calcium Carbonate (CAS # 471-34-1): Present (DSL)
Potassium Carbonate (CAS # 584-08-7): Present (DSL)
Iron (CAS # 7439-89-6): Present (DSL)
Lead (CAS # 7439-92-1): Present (DSL)
Magnesium (CAS # 7439-95-4): Present (DSL)
Manganese (CAS # 7439-96-5): Present (DSL)
Silicon (CAS # 7440-21-3): Present (DSL)
Zinc (CAS # 7440-66-6): 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)

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.

Barium Nitrate (CAS # 10022-31-8): Present (ACTIVE)
Boric Acid (CAS # 10043-35-3): Present (ACTIVE)
Ammonium Hydroxide (CAS # 1336-21-6): Present (ACTIVE)
Strontium Carbonate (CAS # 1633-05-2): Present (ACTIVE)
Calcium Carbonate (CAS # 471-34-1): Present (ACTIVE)
Potassium Carbonate (CAS # 584-08-7): Present (ACTIVE)
Iron (CAS # 7439-89-6): Present (ACTIVE)
Lead (CAS # 7439-92-1): Present (ACTIVE)
Magnesium (CAS # 7439-95-4): Present (ACTIVE)
Manganese (CAS # 7439-96-5): Present (ACTIVE)
Silicon (CAS # 7440-21-3): Present (ACTIVE)
Zinc (CAS # 7440-66-6): 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)

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

Barium Nitrate (CAS # 10022-31-8): 233-020-5
Boric Acid (CAS # 10043-35-3): 233-139-2
Boric Acid (CAS # 10043-35-3): 234-343-4
Ammonium Hydroxide (CAS # 1336-21-6): 215-647-6
Ammonium Hydroxide (CAS # 1336-21-6): 231-635-3
Strontium Carbonate (CAS # 1633-05-2): 216-643-7
Calcium Carbonate (CAS # 471-34-1): 207-439-9
Potassium Carbonate (CAS # 584-08-7): 209-529-3
Potassium Carbonate (CAS # 584-08-7): 241-378-9
Iron (CAS # 7439-89-6): 231-096-4
Lead (CAS # 7439-92-1): 231-100-4
Magnesium (CAS # 7439-95-4): 231-104-6
Manganese (CAS # 7439-96-5): 231-105-1
Silicon (CAS # 7440-21-3): 231-130-8
Zinc (CAS # 7440-66-6): 231-175-3
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

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. Fatal if inhaled. Toxic to aquatic life with long lasting effects.

Keep only in original container. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory 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 is urgent (Wash areas of contact with water immediately). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. Collect spillage.

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.

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

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16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

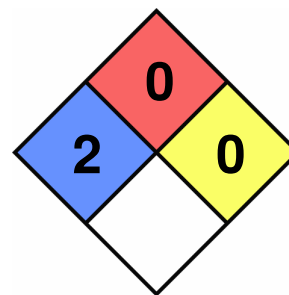
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

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

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

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



16.4. Document Revision

Last Revision Date: 2023-10-11

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.