

# **SECTION 1: Identification**

## 1.1. Product Identifier

Trade Name or Designation: Rubidium ICP Standard, 1000 ppm Rb in 3% HNO3

Product Number: PRB1KN Other Identifying Product Numbers: PRB1KN-100

## 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 hr)

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

# **SECTION 2: Hazard(s) Identification**

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

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

|   |            | Hazard    |   |
|---|------------|-----------|---|
| Hazard Class  | Category   | Statement | 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                    |
| Specific Target Organs/Systemic Toxicity Following Single   | Category 1 | H370      | P260, P264, P270, P307+P311, P321, P405, P501 |
| Exposure  |            |           |   |
| Specific Target Organs/Systemic Toxicity Following Repeated | Category 1 | H372      | P260, P264, P270, P314, P501                  |
| Exposure  |            |           |   |
| Corrosive to Metals   | Category 1 | H290      | P234, P390, P406                              |



# 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.   |
| H370          | Causes damage to organs.  |
| H372          | Causes damage to organs through prolonged or repeated exposure. |

# **Safety Data Sheet**

#### **Precautionary Statements: Precautionary Number Precautionary Statement** P234 Keep only in original container. P260 Do not breathe dust, fumes or mist. P264 Wash arms, hands and face thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. 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 d Continue rinsing. P307+P311 IF exposed: Call a POISON CENTER or physician. P310 Immediately call a POISON CENTER or physician. P314 Get medical attention if you feel unwell. 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. 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.

# 2.3. WHMIS Classification

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

# 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

# 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            | H₂O              | 18.01 g/mol      | 7732-18-5  | 96.74%  |
| Nitric Acid      | HNO <sub>3</sub> | 63.01 g/mol      | 7697-37-2  | 3.09%   |
| Rubidium Nitrate | RbNO₃            | 147.47 g/mol     | 13126-12-0 | 0.17%   |

# **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

Mildly corrosive liquid. 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 is urgent (Wash areas of contact with water immediately). Specific treatment (Wash areas of contact with water immediately).

# **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 considered to be a fire or explosion hazard.

# 5.3. Special Protective Equipment for Firefighters

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

# **Safety Data Sheet**

# **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

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.

# **SECTION 8: Exposure Controls / Personal Protection**

#### 8.1. Control Parameters

| Chemical Name           | Limit Type | Country | Exposure Limit | Information Source                     |
|-------------------------|------------|---------|----------------|--|
| Nitric Acid (7697-37-2) | TWA        | USA     | 2 ppm TWA      | U.S OSHA - Final PELs - Time Weighted  |
|                         |            |         | 5 mg/m³ TWA    | Averages (TWAs)                        |
| Nitric Acid (7697-37-2) | TLV-STEL   | USA     | 4 ppm STEL     | ACGIH - Threshold Limit Values - Short |
|                         |            |         |                | Term Exposure Limits (TLV-STEL)        |
| Nitric Acid (7697-37-2) | TLV-TWA    | USA     | 2 ppm TWA      | ACGIH - Threshold Limit Values - Time  |
|                         |            |         |                | Weighted Averages (TLV-TWA)            |

## 8.2. Exposure Controls

Engineering Controls: Use only outdoors or in a well-ventilated area. No specific controls are needed. Normal room ventilation is adequa

Respiratory Protection: In case of inadequate ventilation wear 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. In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

# **Safety Data Sheet**

# **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 (n-Octanol/Water): | Data not available.                       |  |
| Auto-Ignition Temperature:               | Data not available.                       |  |
| Decomposition Temperature:               | Data not available.                       |  |
| Viscosity:                               | Data not available.                       |  |
| ExplosiveProperties:                     | Data not available.                       |  |
| Oxidizing Properties:                    | Data not available.                       |  |
| Oxidizing Properties.                    |   |  |

# **SECTION 10: Stability and Reactivity**

## 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

## **10.2. Possibility of Hazardous Reactions**

Data not available.

# 10.3. Conditions to Avoid and Incompatible Materials

Keep only in original container. Strong bases, metallic powders, Carbides, Hydrogen Sulfide, Turpentine and combustible organics.

# **10.4. Hazardous Decomposition Products**

Will not occur.

# **Safety Data Sheet**

# **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 dust, fumes or mist. 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:

LDLo, Oral, Human: 430 mg/kg (Nitric Acid), details of toxic effects not reported other than lethal dose value. LD50, Oral, Rat: 4625 mg/kg (Rubidium Nitrate), peripheral nerve and behavioral effects noted.

#### Skin Corrosion and Irritation:

Causes severe skin burns and eye damage. Do not breathe dust, fumes or mist. 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.

# **Safety Data Sheet**

#### Specific Target Organ Toxicity from Single Exposure:

Causes damage to organs. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Specific Target Organ Toxicity from Repeated Exposure:

Causes damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

#### **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.

# **Safety Data Sheet**

# **SECTION 14: Transportation Information**

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

UN Number: UN3264 Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s., (Nitric Acid) Hazard Class: 8 Packing Group: III Hazard Placard Labels: CORROSNE

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

UN Number: UN3264 Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s., (Nitric Acid) Hazard Class: 8 Packing Group: III Hazard Placard Labels:



# **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 Nitric Acid (CAS # 7697-37-2): 1000 lb TPQ
- 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals 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)** Rubidium Nitrate (CAS # 13126-12-0): 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511) Nitric Acid (CAS # 7697-37-2): 1.0 % de minimis concentration

# 15.5. Massachusetts Right-to-Know Substance List

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



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

Nitric Acid (CAS # 7697-37-2): Environmental hazard Nitric Acid (CAS # 7697-37-2): Present Water (CAS # 7732-18-5): Present

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

Rubidium Nitrate (CAS # 13126-12-0): sn 3722 Rubidium Nitrate (CAS # 13126-12-0): SN 3722 TPQ: 500 lb (water dissociable, Category Code N511) 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 TPQ: 500 lb Nitric Acid (CAS # 7697-37-2): sn 3722 Nitric Acid (CAS # 7697-37-2): SN 3722 TPQ: 500 lb (water dissociable, Category Code N511)

## 15.8. California Proposition 65

Not listed.

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

Rubidium Nitrate (CAS # 13126-12-0): Present Nitric Acid (CAS # 7697-37-2): Present Water (CAS # 7732-18-5): Present

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

Rubidium Nitrate (CAS # 13126-12-0): Present Nitric Acid (CAS # 7697-37-2): Present Water (CAS # 7732-18-5): Present

#### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),

European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP) Not listed.

# **Safety Data Sheet**

# **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. Causes serious eye damage. Fatal if inhaled. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.

Keep only in original container. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. 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. IF exposed: Call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment is urgent (Wash areas of contact with water immediately). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

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.

## 16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable. Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable. Health Hazards Not Otherwise Classified (HHNOC): Not Applicable. Not Applicable.

# 16.3. National Fire Protection Association (NFPA) Rating

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





## 16.4. Document Revision

Last Revision Date: 5/1/2015

# 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.