

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: VeriSpec® Beryllium Standard for ICP 1000 ppm in 2% HCl Manufactured and Tested in an ISO 17025/Guide 34 Accredited Facility

Product Number: RV010267

Other Identifying Product Numbers: RV010267-100N, RV010267-250N, RV010267-30N, RV010267-500N, RV010267-50N

1.2. Recommended Use and Restrictions on Use

Calibration Standard

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company

Address: 448 West Fork Drive Arlington, TX 76012 USA Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hr)

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

SECTION 2: Hazard(s) Identification

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

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

| | | Hazard | |
|-----------------------------|-------------|-----------|---|
| Hazard Class | Category | Statement | Precautionary Statements |
| Skin Corrosion / Irritation | Category 2 | H315 | P264, P280, P302+P352, P321, P332+P313, P362 |
| Eye Damage / Irritation | Category 2A | H319 | P264, P280, P305+P351+P338, P337+P313 |
| Skin Sensitizer | Category 1 | H317 | P261, P272, P280, P302+P352, P332+P313, P321, P363, P501 |
| Carcinogenicity | Category 1B | H350 | P201, P202, P280, P308+P313, P405, P501 |



2.2. GHS Label Elements Pictograms:



Signal Word: Danger

Hazard Statements:

| Hazard Number | Hazard Statement |
|---------------|--------------------------------------|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H350 | May cause cancer. |

Precautionary Statements:

| Precautionary Number | Precautionary Statement |
|----------------------|---|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P261 | Avoid breathing fumes, mist, vapors, or spray. |
| P264 | Wash arms, hands and face thoroughly after handling. |
| P272 | Contaminated work clothing must not be allowed out of the workplace. |
| P280 | Wear protective gloves and eye protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy |
| | to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical attention. |
| P321 | Specific treatment (Wash areas of contact with water). |
| P332+P313 | If skin irritation occurs: Get medical attention. |
| P337+P313 | If eye irritation persists: Get medical attention. |
| P362 | Take off contaminated clothing and wash it before reuse. |
| P363 | Wash contaminated clothing before reuse. |
| P405 | Store locked up. |
| 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.

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 | 97.11% |
| Hydrochloric Acid | HCI | 36.46 g/mol | 7647-01-0 | 2.00% |
| Beryllium Chloride | BeCl ₂ | 79.91 g/mol | 7787-47-5 | 0.89% |

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: Not expected to require first aid. If necessary, remove to fresh air.
- Skin Contact: IF ON SKIN: Wash with plenty of soap and water.

Ingestion: No action required to be taken. If necessary, dilute with water.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause mild irritation to areas of contact.

4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water).

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Not considered to be a fire or explosion hazard.

5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment for Firefighters

Wear protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.



6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up.

SECTION 8: Exposure Controls / Personal Protection

8.1. Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|--------------------------------|-------------|---------|---|--|
| Beryllium Chloride (7787-47-5) | TWA | USA | 2 μg/m³ TWA (as Be) | U.S OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Beryllium Chloride (7787-47-5) | TLV-TWA | USA | 0.00005 mg/m³ TWA (inhalable fraction, as Be) | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Beryllium Chloride (7787-47-5) | PEL-Ceiling | USA | 5 μg/m³ Ceiling (as Be) | U.S OSHA - Final PELs - Ceiling Limits |
| 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/m³ Ceiling | U.S OSHA - Final PELs - Ceiling Limits |

8.2. Exposure Controls

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

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

Skin Protection: Wear protective gloves and eye protection.

Eye Protection: Wear protective gloves and eye protection.

8.3. Personal Protective Equipment

Wear protective gloves and eye protection.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

| A 19 19 9 19 19 19 19 19 19 19 19 19 19 1 | Data nat available |
|---|---------------------|
| | Data not available. |
| Physical State: | Liquid |
| Odor: | Data not available. |
| Odor Threshold: | Data not available. |
| pH: | Data not available. |
| Melting/Freezing Point: | Data not available. |
| Initial Boiling Point /Range: | Data not available. |
| Flash Point: | Data not available. |
| Evaporation Rate: | Data not available. |
| Flammability: | Data not available. |
| Flammability/Explosive Limits: | Data not available. |
| Vapor Pressure: | Data not available. |
| Vapor Density: | Data not available. |
| Relative Density: | 1.00 |
| Solubility: | Data not available. |
| 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. |
| | |
| | |

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** Protect from freezing and physical damage.
- 10.4. Hazardous Decomposition Products

May emit irritating fumes when heated to decomposition.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

Data not available.

Skin Corrosion and Irritation:

Causes 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:

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

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

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

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

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.



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.

SECTION 14: Transportation Information

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

Not regulated according to DOT Regulations.



Not regulated according to IATA Regulations.

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** Hydrochloric Acid (CAS # 7647-01-0): 500 lb TPQ (gas only) Hydrochloric Acid (CAS # 7647-01-0): 5000 lb EPCRA RQ (gas only)
- **15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals** Hydrochloric Acid (CAS # 7647-01-0): 5000 lb final RQ; 2270 kg final RQ Beryllium Chloride (CAS # 7787-47-5): 1 lb final RQ; 0.454 kg final RQ

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

Hydrochloric Acid (CAS # 7647-01-0): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

Beryllium Chloride (CAS # 7787-47-5): 0.1 % de minimis concentration (listed under Chemical Category N050)

15.5. Massachusetts Right-to-Know Substance List

Hydrochloric Acid (CAS # 7647-01-0): Extraordinarily hazardous Beryllium Chloride (CAS # 7787-47-5): Carcinogen; Extraordinarily hazardous

15.6. Pennsylvania Right-to-Know Hazardous Substances

Hydrochloric Acid (CAS # 7647-01-0): Environmental hazard Hydrochloric Acid (CAS # 7647-01-0): Present Water (CAS # 7732-18-5): Present Beryllium Chloride (CAS # 7787-47-5): Environmental hazard Beryllium Chloride (CAS # 7787-47-5): Environmental hazard; Special hazardous substance Beryllium Chloride (CAS # 7787-47-5): Present



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

Hydrochloric Acid (CAS # 7647-01-0): corrosive Hydrochloric Acid (CAS # 7647-01-0): sn 1012 Hydrochloric Acid (CAS # 7647-01-0): SN 1012 500 lb TPQ (>=37% concentration); SN 2909 500 lb TPQ (Hydrogen chloride gas only) Beryllium Chloride (CAS # 7787-47-5): carcinogen Beryllium Chloride (CAS # 7787-47-5): sn 0223 Beryllium Chloride (CAS # 7787-47-5): sn 2163 Beryllium Chloride (CAS # 7787-47-5): SN 2163 500 lb TPQ (Category Code N050)

15.8. California Proposition 65

Beryllium Chloride (CAS # 7787-47-5): carcinogen, 10/1/1987

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

Hydrochloric Acid (CAS # 7647-01-0): Present (DSL) Water (CAS # 7732-18-5): Present (DSL) Beryllium Chloride (CAS # 7787-47-5): Present (DSL)

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

Hydrochloric Acid (CAS # 7647-01-0): Present [T] Water (CAS # 7732-18-5): Present Beryllium Chloride (CAS # 7787-47-5): 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.

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause cancer.

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

IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing and wash it before reuse.

Store locked up.

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: 1 Flammability: 0 Reactivity: 0 Special Hazard:





16.4. Document Revision

Last Revision Date: 9/7/2016

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.