RICCA CHEMICAL COMPANY®

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation** VeriSpec® Mixed Anion Standard 5
150 ppm $SO_4^{2-}$, $PO_4^{3-}$; 100 ppm $NO_3^-$, 30 ppm $Cl^-$, 20 ppm $F^-$

**Product Number** RV010688

**Other Identifying Product Numbers** RV010688-100N

### 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** 412 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

This product is not categorized as hazardous in any GHS hazard class.

### 2.2. GHS Label Elements

**Pictograms:** None Required.

**Signal Word:** None Required.

**Hazard Statements:** None Required.

**Precautionary Statements:** None Required.

### 2.3. Hazards not Otherwise Classified

No other hazards identified.

### 2.4. Ingredients of Unknown Acute Toxicity

This product does not contain any ingredients of unknown acute toxicity.

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## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Mixture

| Chemical Name (IUPAC) | Common Name and Synonyms | CAS Number | Weight% |
|---|---|---|---|
| water | Water | 7732-18-5 | 1.00 |
| azanium dihydrogen phosphate | Ammonium Dihydrogen Phosphate; Ammonium Phosphate Monobasic | 7722-76-1 | 0.12 |
| diazanium sulfate | Ammonium Sulfate | 7783-20-2 | < 0.1 |
| sodium nitrate | Sodium Nitrate; Nitric acid sodium salt (1:1) | 7631-99-4 | < 0.1 |
| sodium chloride | Sodium Chloride; Salt | 7647-14-5 | < 0.1 |
| sodium fluoride | Sodium Fluoride | 7681-49-4 | < 0.1 |

## SECTION 4: First-Aid Measures

### 4.1. Description of Necessary Measures

**Eye Contact:** No action required to be taken. If necessary, rinse eyes with water.

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

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

**Skin Contact:** No action required to be taken. If necessary, wash areas of contact with water.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause mild irritation to areas of contact.

### 4.3. Immediate Medical Attention or Special Treatment Needed

Not expected to require special treatment.

## 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 in a Fire

Not considered to be a fire or explosion hazard.

### 5.3. Special Protective Equipment and Precautions 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 appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

### 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

Protect from freezing and physical damage.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Exposure Limits

**U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)**

| Chemical Name | CAS Number | Exposure Limit |
|---|---|---|
| Sodium Fluoride | 7681-49-4 | "2.5 mg/m3 TWA (as F)" As Fluorides [RR-02792-9] |

**U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits**

No limits found.

**U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)**

No limits found.

**U.S. OSHA - Specifically Regulated Chemicals**

No limits found.

**ACGIH - Threshold Limit Values - Ceilings (TLV-C)**

No limits found.

**ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)**

No limits found.

**ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)**

| Chemical Name | CAS Number | Exposure Limit |
|---|---|---|
| Sodium Fluoride | 7681-49-4 | "2.5 mg/m3 TWA (as F)" As Fluorides [RR-02792-9] |

### 8.2. Engineering Controls

No specific controls are needed.

### 8.3. Individual Protective Measures and Personal Protective Equipment

**Respiratory Protection:** No specific protection is needed. Normal room ventilation is adequate.

**Skin Protection:** As a general rule, wear protective gloves.

**Eye Protection:** As a general rule, wear safety glasses.

## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

| | |
|---|---|
| **Physical State:** | Liquid |
| **Color:** | Data not available. |
| **Odor:** | Data not available. |
| **Odor Threshold:** | Data not available. |
| **Melting/Freezing Point:** | Data not available. |
| **Boiling Point/Range:** | Data not available. |
| **Flammability:** | Data not available. |
| **Flammability/Explosive Limits:** | Data not available. |
| **Flash Point:** | Not flammable |
| **Auto-Ignition Temperature:** | Data not available. |
| **Decomposition Temperature:** | Data not available. |
| **pH:** | Data not available. |
| **Kinematic Viscosity:** | Data not available. |
| **Solubility:** | Data not available. |
| **Vapor Pressure:** | Data not available. |
| **Evaporation Rate:** | Data not available. |
| **Relative Density:** | 1.06 |
| **Relative Vapor Density:** | Data not available. |
| **Particle Characteristics:** | Data not available. |
| **Partition Coefficient n-octanol/water, log** | 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

None identified.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

**Acute Toxicity - Oral Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Sodium Chloride | 7647-14-5 | Oral LD50 Rat 3550 mg/kg (Source: ECHA) |
| Sodium Fluoride | 7681-49-4 | Oral LD50 Rat 52 mg/kg (Source: NLM_CIP) |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | Oral LD50 Rat >2000 mg/kg (no deaths occurred, Source: ECHA) |
| Ammonium Sulfate | 7783-20-2 | Oral LD50 Rat 2840 mg/kg (Source: NLM_CIP) |

**Acute Toxicity - Dermal Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Sodium Chloride | 7647-14-5 | Dermal LD50 Rabbit >10000 mg/kg (no deaths occurred, Source: ECHA) |
| Sodium Fluoride | 7681-49-4 | Dermal LD50 Rabbit >2000 mg/kg (Source: Canada_WHMIS) |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | Dermal LD50 Rabbit >7940 mg/kg (Source: NLM_CIP) |
| Ammonium Sulfate | 7783-20-2 | Dermal LD50 Rat >2000 mg/kg (Source: NLM_HSDB) |

**Acute Toxicity - Inhalation Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Sodium Chloride | 7647-14-5 | Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA_API) |
| Sodium Fluoride | 7681-49-4 | Inhalation LC50 Rat 1 mg/L 4 h (Source: Canada_WHMIS) |

### 11.2 Carcinogenicity:

**International Agency for Research on Cancer (IARC)**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| Sodium Fluoride | 7681-49-4 | Group 3 (Not Classified) - Supplement 7 [1987] (listed under Fluorides inorganic used in drinking-water) |

**National Toxicology Program (NTP)**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| Sodium Fluoride | 7681-49-4 | Male Rat - Equivocal Evidence; Female Rat - No Evidence; Male Mice - No Evidence; Female Mice - No Evidence (TR-393) |

**U.S. OSHA specifically regulated carcinogens**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| | No data found. | |

### 11.3 Additional Toxicology Information:

Data not available.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

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| Chemical Name | CAS Number | Species | Exposure | Toxicity |
|---|---|---|---|---|
| Sodium Chloride | 7647-14-5 | Earthworm | Acute | LC50 48 h Eisenia foetida 0.1 - 1 mg/cm2 [filter paper] (IUCLID) |
| Sodium Fluoride | 7681-49-4 | Freshwater Algae | Acute | EC50 96 h Pseudokirchneriella subcapitata 272 mg/L (IUCLID); EC50 72 h Desmodesmus subspicatus 850 mg/L [static] (EPA) |
| Sodium Nitrate | 7631-99-4 | Freshwater Fish | Acute | LC50 96 h Lepomis macrochirus 2000 mg/L [static] (EPA); LC50 96 h Oncorhynchus mykiss 994.4 - 1107 mg/L [static] (EPA) |
| Sodium Chloride | 7647-14-5 | Freshwater Fish | Acute | LC50 96 h Lepomis macrochirus 5560 - 6080 mg/L [flow-through] (EPA); LC50 96 h Lepomis macrochirus 12946 mg/L [static] (EPA); LC50 96 h Pimephales promelas 6020 - 7070 mg/L [static] (EPA); LC50 96 h Pimephales promelas 7050 mg/L [semi-static] (EPA); LC50 96 h Pimephales promelas 6420 - 6700 mg/L [static] (EPA); LC50 96 h Oncorhynchus mykiss 4747 - 7824 mg/L [flow-through] (EPA) |
| Sodium Fluoride | 7681-49-4 | Freshwater Fish | Acute | LC50 96 h Lepomis macrochirus >530 mg/L (IUCLID); LC50 96 h Lepomis macrochirus 830 mg/L [semi-static] (EPA); LC50 96 h Oncorhynchus mykiss 38 - 68 mg/L [static] (EPA); LC50 96 h Pimephales promelas 180 mg/L [semi-static] (EPA) |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | Freshwater Fish | Acute | LC50 96 h Oncorhynchus mykiss >85.9 mg/L [static] (ECHA) |
| Ammonium Sulfate | 7783-20-2 | Freshwater Fish | Acute | LC50 96 h Brachydanio rerio 250 mg/L (IUCLID); LC50 96 h Brachydanio rerio 480 mg/L [flow-through] (IUCLID); LC50 96 h Brachydanio rerio 420 mg/L [semi-static] (IUCLID); LC50 96 h Cyprinus carpio 18 mg/L (IUCLID); LC50 96 h Oncorhynchus mykiss 32.2 - 41.9 mg/L [flow-through] (EPA); LC50 96 h Oncorhynchus mykiss 5.2 - 8.2 mg/L [static] (EPA); LC50 96 h Pimephales promelas >100 mg/L (IUCLID); LC50 96 h Poecilia reticulata 123 - 128 mg/L [semi-static] (EPA); LC50 96 h Poecilia reticulata 126 mg/L (IUCLID) |
| Sodium Chloride | 7647-14-5 | Water Flea | Acute | EC50 48 h Daphnia magna 1000 mg/L (IUCLID); EC50 48 h Daphnia magna 340.7 - 469.2 mg/L [Static] (EPA) |

| | | | | |
|---|---|---|---|---|
| Sodium Fluoride | 7681-49-4 | Water Flea | Acute | EC50 48 h Daphnia magna 338 mg/L (IUCLID); EC50 48 h Daphnia magna 98 mg/L [Static] (EPA) |
| Ammonium Sulfate | 7783-20-2 | Water Flea | Acute | LC50 48 h Daphnia magna 14 mg/L (IUCLID) |

### 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.

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

Not regulated according to IATA Dangerous Goods Regulations.

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

Not regulated according to TDG regulations.

## SECTION 15: Regulatory Information

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| | | No data found. |

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

| Chemical Name | CAS Number | RQ |
|---|---|---|
| | | No data found. |

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Sodium Fluoride | 7681-49-4 | 1000 lb final RQ; 454 kg final RQ |

### 15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

| Chemical Name | CAS Number | List | Regulatory Information |
|---|---|---|---|
| Sodium Nitrate | 7631-99-4 | Emission Reporting | "1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)" As Nitrate compounds, water dissociable [RR-03804-0] |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | Emission Reporting | "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 Sulfate | 7783-20-2 | Emission Reporting | "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] |

### 15.05. Massachusetts Right-to-Know Substance List

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Sodium Nitrate | 7631-99-4 | Present |
| Sodium Fluoride | 7681-49-4 | Present |
| Ammonium Sulfate | 7783-20-2 | Present |

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Sodium Nitrate | 7631-99-4 | Present |
| Sodium Fluoride | 7681-49-4 | Environmental hazard |
| Ammonium Sulfate | 7783-20-2 | Environmental hazard |

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Sodium Nitrate | 7631-99-4 | "sn 3722" As Nitrate compounds [RR-01770-9] |
| Sodium Fluoride | 7681-49-4 | sn 1699 |

### 15.08. California Proposition 65

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| | | No data found. |

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

| Chemical Name | CAS Number | List | Status |
|---|---|---|---|
| Sodium Nitrate | 7631-99-4 | DSL | Present |
| Sodium Chloride | 7647-14-5 | DSL | Present |
| Sodium Fluoride | 7681-49-4 | DSL | Present |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | DSL | Present |
| Water | 7732-18-5 | DSL | Present |
| Ammonium Sulfate | 7783-20-2 | DSL | Present |

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

| Chemical Name | CAS Number | Status |
|---|---|---|
| Sodium Nitrate | 7631-99-4 | Present (ACTIVE) |
| Sodium Chloride | 7647-14-5 | Present (ACTIVE) |
| Sodium Fluoride | 7681-49-4 | Present (ACTIVE) |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | Present (ACTIVE) |
| Water | 7732-18-5 | Present [XU] (ACTIVE) |
| Ammonium Sulfate | 7783-20-2 | 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)

| Chemical Name | CAS Number | List | Number |
|---|---|---|---|
| Sodium Nitrate | 7631-99-4 | EINECS | 231-554-3 |
| Sodium Chloride | 7647-14-5 | EINECS | 231-598-3 |
| Sodium Fluoride | 7681-49-4 | EINECS | 231-667-8 |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | EINECS | 231-764-5 |
| Water | 7732-18-5 | EINECS | 231-791-2 |
| Ammonium Sulfate | 7783-20-2 | EINECS | 231-984-1 |

### 15.12. China - Inventory of Existing chemical Substances (IECSC)

| Chemical Name | CAS Number | Status |
|---|---|---|
| Sodium Nitrate | 7631-99-4 | Present [35612] |
| Sodium Chloride | 7647-14-5 | Present [24102] |
| Sodium Fluoride | 7681-49-4 | Present [13200] |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | Present [22403] |
| Water | 7732-18-5 | Present [32224] |
| Ammonium Sulfate | 7783-20-2 | Present [23019] |

### 15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

| Chemical Name | CAS Number | List | Status |
|---|---|---|---|
| Sodium Nitrate | 7631-99-4 | Annex 1 | Present [KE-31545] |
| Sodium Chloride | 7647-14-5 | Annex 1 | Present [KE-31387] |
| Sodium Fluoride | 7681-49-4 | Annex 1 | Present [KE-31540] |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | Annex 1 | Present [KE-01656] |
| Water | 7732-18-5 | Annex 1 | Present [KE-35400] |
| Ammonium Sulfate | 7783-20-2 | Annex 1 | Present [KE-01743] |

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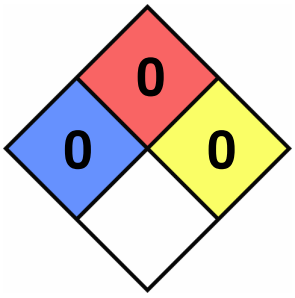
### 15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

| Chemical Name | CAS Number | MITI No. |
|---|---|---|
| Sodium Nitrate | 7631-99-4 | (1)-484 |
| Sodium Chloride | 7647-14-5 | (1)-236 |
| Sodium Fluoride | 7681-49-4 | (1)-332 |
| Ammonium Dihydrogen Phosphate | 7722-76-1 | (1)-379 |
| Water | 7732-18-5 | - (listed on Japanese Pharmacopoeia 8th Edition) |
| Ammonium Sulfate | 7783-20-2 | (1)-400 |

## SECTION 16: Other Information

### 16.1 National Fire Protection Associate (NFPA) Rating

**Health:** 0
**Flammability:** 0
**Reactivity** 0
**Special Hazard:**




### 16.2 Document Revision

**Last Revision Date:**
2026-05-22

## 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.