



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 Cation Standard 6
50 ppm Li⁺; 200 ppm Na⁺, K⁺, Mg²⁺; 400 ppm NH⁴⁺, 1000 ppm Ca²⁺
Product Number RV010689
Other Identifying Product Numbers RV010689-100N, RV010689-50N

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 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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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
calcium carbonate	Calcium Carbonate; Carbonic acid, calcium salt	471-34-1	0.40
azanium nitrate	Ammonium Nitrate	6484-52-2	0.18
magnesium dichloride	Magnesium Chloride	7786-30-3	< 0.1
sodium nitrate	Sodium Nitrate; Nitric acid sodium salt (1:1)	7631-99-4	< 0.1
lithium nitrate	Lithium Nitrate; Nitric acid, lithium salt (1:1)	7790-69-4	< 0.1
Potassium chloride	Potassium Chloride; Hydrochloric acid, potassium salt	7447-40-7	< 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.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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
Calcium Carbonate	471-34-1	"15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)" As Calcium carbonate [1317-65-3]

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)

No limits found.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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
Calcium Carbonate	471-34-1	Oral LD50 Rat 6450 mg/kg (Source: NLM_CIP)
Ammonium Nitrate	6484-52-2	Oral LD50 Rat 2217 mg/kg (Source: NLM_CIP)
Potassium Chloride	7447-40-7	Oral LD50 Rat 2600 mg/kg (Source: NLM_CIP)
Magnesium Chloride	7786-30-3	Oral LD50 Rat 2800 mg/kg (Source: NLM_CIP)
Lithium Nitrate	7790-69-4	Oral LD50 Rat 1426 mg/kg (Source: Canada_WHMIS)

Acute Toxicity - Dermal Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Calcium Carbonate	471-34-1	Dermal LD50 Rat >2000 mg/kg (Source: ECHA_API)
Magnesium Chloride	7786-30-3	Dermal LD50 Rat >2000 mg/kg (Source: ECHA_API)
Lithium Nitrate	7790-69-4	Dermal LD50 Rat >2000 mg/kg (Source: ECHA_API)

Acute Toxicity - Inhalation Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Calcium Carbonate	471-34-1	Inhalation LC50 Rat >3 mg/L 4 h (no deaths occurred, aerosol, Source: ECHA_API)
Lithium Nitrate	7790-69-4	Inhalation LC50 Rat >5.93 mg/L 4 h (no deaths occurred, aerosol, Source: ECHA_API)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

Chemical Name	CAS Number	Classification
No data found.		

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
No data found.		

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

Chemical Name	CAS Number	Species	Exposure	Toxicity
Potassium Chloride	7447-40-7	Freshwater Algae	Acute	EC50 72 h <i>Desmodesmus subspicatus</i> 2500 mg/L (IUCLID)
Magnesium Chloride	7786-30-3	Freshwater Algae	Acute	EC50 72 h <i>Pseudokirchneriella subcapitata</i> >82.7 mg/L (OECD_SIDS)
Potassium Chloride	7447-40-7	Freshwater Fish	Acute	LC50 96 h <i>Lepomis macrochirus</i> 1060 mg/L [static] (EPA); LC50 96 h <i>Pimephales promelas</i> 750 - 1020 mg/L [static] (EPA)
Sodium Nitrate	7631-99-4	Freshwater Fish	Acute	LC50 96 h <i>Lepomis macrochirus</i> 2000 mg/L [static] (EPA); LC50 96 h <i>Oncorhynchus mykiss</i> 994.4 - 1107 mg/L [static] (EPA)
Magnesium Chloride	7786-30-3	Freshwater Fish	Acute	LC50 96 h <i>Pimephales promelas</i> 1970 - 3880 mg/L [static] (EPA)
Potassium Chloride	7447-40-7	Water Flea	Acute	EC50 48 h <i>Daphnia magna</i> 825 mg/L (IUCLID); EC50 48 h <i>Daphnia magna</i> 83 mg/L [Static] (EPA)
Magnesium Chloride	7786-30-3	Water Flea	Acute	EC50 48 h <i>Daphnia magna</i> 140 mg/L [Static] (EPA)

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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.



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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
No data found.		

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

Chemical Name	CAS Number	List	Regulatory Information
Ammonium Nitrate	6484-52-2	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]; "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]
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]
Lithium Nitrate	7790-69-4	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]

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Calcium Carbonate	471-34-1	"Present (including dust)" As Calcium carbonate [1317-65-3]
Ammonium Nitrate	6484-52-2	Present
Sodium Nitrate	7631-99-4	Present

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Calcium Carbonate	471-34-1	"Present" As Limestone [1317-65-3]
Ammonium Nitrate	6484-52-2	Environmental hazard
Sodium Nitrate	7631-99-4	Present

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

Chemical Name	CAS Number	Regulatory Information
Calcium Carbonate	471-34-1	"sn 4001" As Calcium carbonate [1317-65-3]
Ammonium Nitrate	6484-52-2	sn 0106
Sodium Nitrate	7631-99-4	"sn 3722" As Nitrate compounds [RR-01770-9]
Lithium Nitrate	7790-69-4	sn 1130

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
Calcium Carbonate	471-34-1	DSL	Present
Calcium Carbonate	471-34-1	NDSL	"Present" As Calcium carbonate [1317-65-3]
Ammonium Nitrate	6484-52-2	DSL	Present
Potassium Chloride	7447-40-7	DSL	Present
Sodium Nitrate	7631-99-4	DSL	Present
Water	7732-18-5	DSL	Present
Magnesium Chloride	7786-30-3	DSL	Present
Lithium Nitrate	7790-69-4	DSL	Present

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Chemical Name	CAS Number	Status
Calcium Carbonate	471-34-1	Present (ACTIVE)
Ammonium Nitrate	6484-52-2	Present (ACTIVE)
Potassium Chloride	7447-40-7	Present (ACTIVE)
Sodium Nitrate	7631-99-4	Present (ACTIVE)
Water	7732-18-5	Present [XU] (ACTIVE)
Magnesium Chloride	7786-30-3	Present (ACTIVE)
Lithium Nitrate	7790-69-4	Present (ACTIVE)

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
Calcium Carbonate	471-34-1	EINECS	207-439-9
Ammonium Nitrate	6484-52-2	EINECS	229-347-8
Potassium Chloride	7447-40-7	EINECS	231-211-8
Sodium Nitrate	7631-99-4	EINECS	231-554-3
Water	7732-18-5	EINECS	231-791-2
Magnesium Chloride	7786-30-3	EINECS	232-094-6
Lithium Nitrate	7790-69-4	EINECS	232-218-9

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

Chemical Name	CAS Number	Status
Calcium Carbonate	471-34-1	Present [34102]
Ammonium Nitrate	6484-52-2	Present [35581]
Potassium Chloride	7447-40-7	Present [24074]
Sodium Nitrate	7631-99-4	Present [35612]
Water	7732-18-5	Present [32224]
Magnesium Chloride	7786-30-3	Present [24097]
Lithium Nitrate	7790-69-4	Present [35605]

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Chemical Name	CAS Number	List	Status
Calcium Carbonate	471-34-1	Annex 1	Present [KE-04487]
Ammonium Nitrate	6484-52-2	Annex 1	Present [KE-01715]
Potassium Chloride	7447-40-7	Annex 1	Present [KE-29086]
Sodium Nitrate	7631-99-4	Annex 1	Present [KE-31545]
Water	7732-18-5	Annex 1	Present [KE-35400]
Magnesium Chloride	7786-30-3	Annex 1	Present [KE-22691]
Lithium Nitrate	7790-69-4	Annex 1	Present [KE-22582]

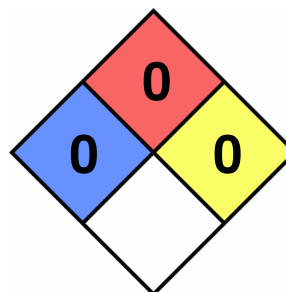
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Calcium Carbonate	471-34-1	(1)-122
Ammonium Nitrate	6484-52-2	(1)-395
Potassium Chloride	7447-40-7	(1)-228
Sodium Nitrate	7631-99-4	(1)-484
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)
Magnesium Chloride	7786-30-3	(1)-233
Lithium Nitrate	7790-69-4	(1)-765

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.