

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Calcium Nitrate Tetrahydrate, ACS Reagent Grade

Product Number RCPCC100

Other Identifying Product Numbers

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company Cole-Parmer Instrument Company

Address 625 EAST BUNKER COURT

VERNON HILLS, IL 60061 USA

Telephone 800-323-4340

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

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
calcium dinitrate tetrahydrate	Calcium Nitrate Tetrahydrate	13477-34-4	100.00

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: Causes severe irritation, redness, pain, tearing and burns.

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Ingestion: Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.

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

Skin Contact: Causes irritation to skin, symptoms include redness, itching, and pain.

4.2. Most Important Symptoms and Effects, Acute and Delayed

DANGER! Strong oxidizer. Contact with other material may cause fire. Harmful if swallowed, inhaled or absorbed through skin. Causes irritation to eyes, skin, and respiratory tract. Wash areas of contact with water. EYE CONTACT: Causes severe irritation, redness, pain, tearing and burns. SKIN CONTACT: Causes irritation to skin, symptoms include redness, itching, and pain.

4.3. Immediate Medical Attention or Special Treatment Needed

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 immediately with water or milk. Induce vomiting. Call a physician.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire (Water, water spray, foam, or dry chemical). If using water, do not allow water run off to enter sewer.

5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

5.3. Special Protective Equipment and Precautions for Firefighters

Use 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

Ventilate area of leak or spill. Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

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. Exposure Limits

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

No limits found.

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.

8.2. Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: A system of local or general exhaust is recommended. If necessary, wear a dust mask respirator to minimize exposure to dust particles.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	solid
Color:	Colorless/white
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:	Data not available.
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	5.0-7.0 (5% solution)
Kinematic Viscosity:	Data not available.
Solubility:	Data not available.
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	1.82
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

Heavy metals, phosphites, organic compounds, carbonaceous materials, strong acids, and many other substances.

10.4. Hazardous Decomposition Products

Will not occur.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

No information found.

Acute Toxicity - Dermal Exposure:

No information found.

Acute Toxicity - Inhalation Exposure:

No information found.

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

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
Calcium Nitrate Tetrahydrate	13477-34-4	Freshwater Fish	Acute	"LC50 96 h Lepomis macrochirus 10000 mg/L [static]" As Calcium nitrate [10124-37-5]

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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)

Sizes: 500 g, 1000 g

UN Number: UN1454

Proper Shipping Name: Calcium Nitrate

Hazard Class: 5.1

Packing Group: III

Hazard Label(s):



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

Sizes: 500 g, 1000 g

UN Number: UN1454

Proper Shipping Name: Calcium Nitrate

Hazard Class: 5.1

Packing Group: III

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 500 g, 1000 g

UN Number: UN1454

Proper Shipping Name: CALCIUM NITRATE

Hazard Class: 5.1

Packing Group: III

Hazard Label(s):



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
No data found.		

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

Chemical Name	CAS Number	List	Regulatory Information
Calcium Nitrate Tetrahydrate	13477-34-4	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]

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
No data found.		

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
No data found.		

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

Chemical Name	CAS Number	Regulatory Information
Calcium Nitrate Tetrahydrate	13477-34-4	"sn 0324" As Calcium nitrate [10124-37-5]; "sn 3722" As Nitrate compounds [RR-01770-9]

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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 Nitrate Tetrahydrate	13477-34-4	DSL	"Present" As Calcium nitrate [10124-37-5]

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

Chemical Name	CAS Number	Status
Calcium Nitrate Tetrahydrate	13477-34-4	"Present (ACTIVE)" As Nitric acid, calcium salt (2:1) [10124-37-5]

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 Nitrate Tetrahydrate	13477-34-4	EINECS	"233-332-1" As Calcium nitrate [10124-37-5]

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

Chemical Name	CAS Number	Status
Calcium Nitrate Tetrahydrate	13477-34-4	Present [33070]

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

Chemical Name	CAS Number	List	Status
Calcium Nitrate Tetrahydrate	13477-34-4	Annex 1	"Present [KE-04582]" As Calcium nitrate [10124-37-5]

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

Chemical Name	CAS Number	MITI No.
Calcium Nitrate Tetrahydrate	13477-34-4	(1)-188 (not considered as a new chemical substance)

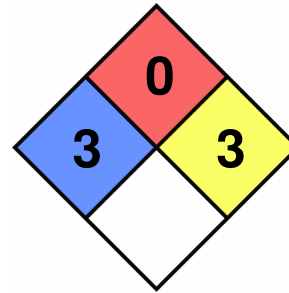
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SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 3
Flammability: 0
Reactivity: 3
Special Hazard:



16.2 Document Revision

Last Revision Date:

2026-05-05

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 COLE-PARMER INSTRUMENT COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.