

Section 1 – Identification

Product	CT-70 Calcium Nitrate Tetrahydrate 70% Solution	Recommended Use:
Product Code:	159	CT-70 is used in industrial applications such as wastewater treatment (to prevent odor and control sulfides), concrete admixtures (to accelerate setting and improve durability)
Manufacturer	TradeMark Nitrogen Corp.	
Address	1216 Old Hopewell Road Tampa, FL 33619 - USA	
Phone	(813) 626-1181 (800) 452-3107	
24 Hour	Chemtrec	
Emergency	(800) 424-9300	
Contact		

Section 2 – Hazard Identification

GHS07



GHS05

Signal Word: WARNING**Hazard Statements:**

H302	Harmful if swallowed
H320	Causes eye irritation
H315	Causes skin irritation
H335	May cause respiratory irritation

Precautionary Statements:

P101:	If medical advice is needed, have product container or label at hand.
P102:	Keep out of reach of children.
P103	Read label before use
P210	Keep away from open flames. - No Smoking
P260	Do not breathe fume, mist, spray, vapours
P264	Wash hands 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 eye protection, protective clothing, protective gloves
P331	Do NOT induce vomiting
P301+P330	IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell
P302+P352	IF ON SKIN: Wash with plenty of water
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and
P332+P313	If skin irritation occurs: Get medical advice / attention
P337+P313	If eye irritation persists: Get medical advice / attention
P362	Take off contaminated clothing
P501	Dispose of contents / container according to local, regional, national, and international regulations

Section 3 – Composition

Ingredients	Component	CAS. No.	Percent by Weight
	Calcium Nitrate $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$	13477-34-4	70 - 72%
	Water (H_2O)	7732-18-5	Balance

Section 4 – First Aid Measures

Inhalation	If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. Seek medical attention if necessary.
Skin Contact	If on skin (or hair): Take off all contaminated clothing. Rinse skin immediately with soap and water for at least 15 minutes. Seek medical attention if irritation persists.
Eye Contact	If in eyes: Rinse cautiously with water for at least 15 minutes, while holding eyelids open. Remove contact lenses, if present and easy to do. Seek medical attention at once.
Ingestion	If swallowed: Immediately contact a physician or poison control center. Do NOT induce vomiting, unless advised by a medical professional. Drink one to two glasses of water. Never give anything by mouth to an unconscious person.
Acute Health Hazards	Moderate irritant of eyes, skin and contaminated tissue. Prolonged contact can result in tissue damage. Ingestion may be harmful or fatal. High levels of nitrates may reduce the blood's ability to transport oxygen causing headache, fatigue, dizziness and blue lips and skin (methemoglobinemia).
Chronic Health Hazards	Methemoglobinemia is the primary health effect. Prolonged skin contact may result in dermatitis (inflammation and redness of skin).

Section 5 – Fire Fighting Measures

Suitable Extinguishing Techniques & Equipment	Calcium Nitrate Solution is not combustible or reactive, but can contribute to the intensity of the fire. Use an extinguishing agent suitable for the surrounding fire. Extinguishing Media: Dry chemical, foam, carbon dioxide or an ABC class extinguishers are acceptable.
Chemical Hazards From Fire	In a fire or if heated, a pressure increase will occur and the container may burst. If product evaporates, residual solid may sustain combustion. In a fire this material may decompose and produce oxides of nitrogen, metal oxide(s).
Special Fire Fighting Procedures	Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.
NFPA Rating	Health - 1 (Slight) Fire - 0 (Least) Reactivity - 0 (Least)
Other	Do not allow run-off from fire fighting to enter drains or bodies of water.



Section 6 – Accidental Release Measure

Personal Precautions	Avoid splashing. Prevent exposure to spilled material with the use of proper PPE.
Protective Equipment	PPE should include gloves, goggles, face shield and impervious clothing.
Containment	Control the flow of product using dikes of soil, sand bags or other commercially available inert sorbent socks or booms. Prevent entry into sewers, drains, underground or confined spaces, water intakes and waterways.
In Case of Spill	Absorb product with inert absorbent. Avoid splashing or spraying. Contain and pick up spill in diked area. Prevent discharge to sewers or water ways. Follow all local, state, federal and provincial laws and regulations for disposal.

Section 7 – Safe Handling & Storage

Precautions for Safe Handling & Storage	Open container carefully. Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Use this product with adequate ventilation. Wash thoroughly after handling. Store in a well ventilated cool dry place. Do not freeze. Store away from direct sunlight and any sources of heat. Empty product containers may contain residue. Do not store this material in open or unlabeled containers. Store locked up.
Incompatibility	Avoid contact with combustible materials, acids and alkalis. Residue would be incompatible with combustible materials.

Section 8 – Exposure Controls / Personal Protection

Exposure Limits	Component	Permissible Exposure Limit	Threshold Limit Value	Short Term Exposure Limit	Immediately Dangerous to Life or Health
	Calcium Nitrate Ca(NO ₃) ₂	Not Established	Not Established	Not Established	Not Established
	Water (H ₂ O)	Not Established	Not Established	Not Established	Not Established

Engineering Controls: Local or general exhaust. Eyewash facilities should be available.

Personal Protective Equipment:

- Eyes: Chemical safety goggles or safety glasses
- Hands: Chemical resistant gloves.
- Respiratory: None required under normal conditions. NIOSH approved respirator if there is a mist of the product.
- Protective Clothing: Impervious chemical clothing



Gloves



Goggles

Section 9 – Physical & Chemical Properties

Appearance and Odor	Clear, light-yellow to colorless liquid with no significant odor.	Specific Gravity	1.485
Boiling Point	>212°F (>100°C)	Solubility in Water	Miscible
Freezing Point	5 - 15°F	Evaporative Rate	No Data Available
Vapor Pressure	No Data Available	pH	5.5 - 7.0
Gallons per Ton	161.5 gal / ton	Salt-Out Temperature	35°F (1.67°C)
Weight per Gallon	12.38 lbs / gal	Auto Ignition Temp	Not Flammable
Flash Point	No Data Available	LEL	No Data Available
Flammability Limits	No Data Available	UEL	No Data Available

Section 10 – Stability & Reactivity

Reactivity	Product is not reactive under normal conditions.
Stability	Product is stable under normal conditions.
Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Do not allow product to evaporate to dryness, product residue may act as an oxidizer and support combustion. Avoid extreme heat. Avoid incompatible materials.
Incompatible Materials	Avoid contact with combustible materials, acids and alkalis. Residue would be incompatible with combustible materials.
Hazardous Decomposition Products	Under normal conditions - hazardous decomposition products should not occur.

Section 11 – Toxicology Information

Routes of Exposure	Inhalation, ingestion or skin/eye absorption	
Symptoms and Signs of Exposure	Eyes	Mild irritant.
	Skin	Mild irritant.
	Inhalation	May irritate respiratory tract causing sneezing, cough and sore throat.
	Ingestion	If ingested this product may cause burns to the mouth, throat, esophagus and possibly the digestive tract. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness.
Acute Health Hazards	This product may be harmful or fatal if swallowed. This product is irritating to the eyes, respiratory system and skin. The nitrate component of this product may cause Methemoglobinemia.	
Long Term Effects	Methemoglobinemia is the primary long-term health effect. Repeated skin contact with this material may cause dermatitis.	

Toxicity No limits have been set for this material.

Component Analysis:

Calcium Nitrate	LD ₅₀ Oral	500 mg / kg
Ca(NO ₃) ₂	Rat	

Carcinogen The International Agency for Research on Cancer has not classified calcium nitrate for its carcinogenic potential (IARC 1987).

Section 12 – Ecological Information

General Product Information	In high concentrations, this product may be harmful to either terrestrial and aquatic plant life. Harmful to fish and other aquatic organisms.				
Persistence and Degradability	Readily biodegradable in plants and soils.				
Bioaccumulative Potential	Bioaccumulation: Not reported				
Mobility in Soil	This product may move with surface or groundwater flows.				
Other Adverse Effects	No known significant effects or critical hazards				

Ecotoxicity	Ingredient name	Method	Species	Results	Exposure
	Calcium Nitrate	OECD 203 Acute LC50 Fresh Water	Fish	1,378 mg/L	96 h
		Acute LC50 Fresh Water	Daphnia	490 mg/L	48 h
		Acute EC50 Salt Water	Algae	>1,700 mg/L	10 d

Section 13 – Disposal Considerations

Waste Calcium Nitrate is not considered a hazardous waste. Disposal must be done in accordance with local, state and federal environmental regulations. Place waste in an appropriate container with correct labeling.

Section 14 – Transport Information

This product is not classified as hazardous as defined by 49 CFR 172.101 by the US Department of Transportation

This product is not regulated as a hazardous material for transportation as defined by Canada's Transportation of Dangerous Goods Information.

This product is not regulated as a dangerous good as defined by the IMDG regulations.

This product is not regulated as a dangerous good as defined by the IATA regulations.

Special Precautions	None known
STCC Code	2812639

Section 15 – Regulatory Information

United States - SARA Hazard Category This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories:

Fire - No Pressure - No Reactive - No Acute - Yes Chronic - No

SARA Title III Information This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Chemical	CAS No.	CERCLA RQ	SARA Reporting	302	304	313
Calcium Nitrate Tetrahydrate	13477-34-4	N/A	N/A	N/A	N/A	N/A

CERCLA / Superfund, 40 CFR Part 117, 302 If this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National Response Center, Washington DC (800-424-8802) is required.

TSCA All Components are listed or exempted.

California Prop 65 WARNING: Cancer and Reproductive Harm - www.p65warnings.ca.gov

Section 16 – Other Information

Date of Issue 1.20.2025

Date of Revision January 2025 Intended Use statement updated. February 2024 SDS updated to include STCC code. February 2022 section 15 updated. November 2020 SDS created to meet GHS requirements.

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