



MATERIAL SAFETY DATA SHEET

Name of Product:

CALCIUM NITRATE

Product #: F 267, F 276
Revision Date: November 9, 2015

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Calcium Nitrate
SYNONYMS: N/A
PRODUCT CODES: F 267 F 276

MANUFACTURER: NACHURS ALPINE SOLUTIONS®
DIVISION: New Hamburg
ADDRESS: 30 Neville Street, New Hamburg, ON N3A 4G7 CANADA
PHONE: 1-519-662-2352

EMERGENCY PHONE: 1-877-324-4402 (I TECH)
CHEMTREC PHONE: 1-800-424-9300 (US)
CANUTEC: 1-613-996-6666 (CANADA)
FAX PHONE: N/A

CHEMICAL NAME: Calcium Nitrate Decahydrate
CHEMICAL FAMILY: Inorganic
CHEMICAL FORMULA: $\text{Ca}(\text{NO}_3)_2$

PRODUCT USE: Manufacturer of fertilizers, pharmaceuticals, lubricants, household cleaners

PREPARED BY: NACHURS ALPINE SOLUTIONS®

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Use with Care!

ROUTES OF ENTRY: Injection, Ingestion, Inhalation, absorption

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation, redness and pain.
SKIN: Low irritation potential. May cause redness, itching and pain.
INGESTION: Moderate to severe irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.
INHALATION: May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

ACUTE HEALTH HAZARDS: Risk of Nitrate Toxicity

CHRONIC HEALTH HAZARDS: None Reported

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None Reported

CARCINOGENICITY:

OSHA: No data reported
ACGIH: No data reported
NTP: No data reported
IARC: No data reported
OTHER: N/A

SECTION 2 NOTES:

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	Calcium Nitrate		
CAS NO.:	Calcium Nitrate	10124-37-5	66-72%
	Water	7732-18-5	28-34%
% WT:	100%		
% VOL:	N/A		
SARA 313 REPORTABLE:	N/A		
pmm:	N/A		
mg/m3:	N/A		
OSHA PEL-TWA:	N/A		
OSHA PEL STEL:	N/A		
OSHA PEL CEILING:	N/A		
ACGIH TLV-TWA:	N/A		
ACGIH TLV STEL:	N/A		
ACGIH TLV CEILING:	N/A		

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES:	Flush with plenty of water for at least 15 minutes. Get medical attention (if necessary).
SKIN:	Flush skin with plenty of water. Get medical attention (if necessary)
INGESTION:	Delay absorption of ingested nitrate by giving milk or water. Do not induce vomiting. If spontaneous vomiting should occur, keep head below hips to prevent aspiration of liquid into lungs. Seek medical attention.
INHALATION:	Remove to fresh air. If discomfort continues, seek medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR: (% BY VOLUME)	UPPER: N/A LOWER: N/A
FLASH POINT:	N/A
METHOD USED:	N/A
AUTOIGNITION TEMPERATURE:	N/A
NFPA HAZARD CLASSIFICATION:	
HEALTH:	1
FLAMMABILITY:	0
REACTIVITY:	1
OTHER:	None

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HMIS HAZARD CLASSIFICATION

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 1
PROTECTION:

EXTINGUISHING MEDIA: Use media appropriate for surrounding fires.

SPECIAL FIRE FIGHTING PROCEDURES: Appropriate personal protective equipment should be used.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Product may be combustible at high temperatures.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitric Oxide and Oxygen

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: For small spills: Isolate area and absorb with material such as sand/kitty litter. Collect material in a suitable and properly labeled container. Clean up residue with plenty of water. Dispose of appropriately.

For large spills: Isolate area and set up a dike to contain the spill. Transfer material to suitable and properly labeled containers. Absorb with materials such as sand and clean up the remaining residue with plenty of water.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Keep in a tightly closed container, stored in a cool, dry, well-ventilated area. Do not store in aluminum tanks. If risk of splash, wear appropriate PPE such as gloves, boots, apron, face shield.

OTHER PRECAUTIONS: General safety and industrial hygienic practices should always be followed. Remove contaminated clothing and wash before reuse.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use adequate general and local exhaust ventilation to keep airborne concentrations below exposure limits.

VENTILATION: Provide adequate ventilation for local areas.

RESPIRATORY PROTECTION: Respirators are not required under normal ventilated conditions. If heated to evolve ammonia, use appropriate protection. If misted by heat, agitation, or spray, use a NIOSH approved mist respirator.

EYE PROTECTION: Safety glasses or chemical splash proof goggles.

SKIN PROTECTION: Not required (rubber or PVC gloves recommended for prolonged exposure).

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OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Rubber boots are recommended where splashing or spill is likely. Wear waterproof apron if splash or spill is likely
WORK HYGIENIC PRACTICES: Wash hands thoroughly after handling.
EXPOSURE GUIDELINES: See Section 3.

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, colourless liquid with no odor

ODOR: N/A

PHYSICAL STATE: Liquid

pH AS SUPPLIED: 5.0-8.0
pH (Other):

BOILING POINT: Approximately the same as water
F°: 212°C
C°: 100°C

SALT-OUT POINT: @
F: 32°F
C: 0°C

VAPOR PRESSURE (mmHg) @ N/A

VAPOR DENSITY (AIR = 1)@ N/A

SPECIFIC GRAVITY (H₂O = 1) 1.45-1.52

EVAPORATION RATE: N/A

BASIS (=1):

SOLUBILITY IN WATER: Complete

PERCENT SOLIDS BY WEIGHT: 66-72%

PERCENT VOLATILE: N/A
BY WT
BY VOL @F°:
C°:

VOLATILE ORGANIC COMPOUNDS (VOC): N/A
WITH WATER LBS/GAL:
WITHOUT WATER LBS/GAL:

MOLECULAR WEIGHT: 164.088 g/mol

VISCOSITY: Same as water

SECTION 9 NOTES:

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SECTION 10: STABILITY AND REACTIVITY

	STABLE	UNSTABLE
STABILITY:	x	
CONDITIONS TO AVOID (STABILITY):	N/A	
INCOMPATIBILITY (MATERIAL TO AVOID):	Aluminum, Zinc, galvanized iron and combustible materials.	
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Nitrous Oxide and oxygen	
HAZARDOUS POLYMERIZATION:	N/A	
CONDITIONS TO AVOID (POLYMERIZATION):	N/A	

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:	LD50 (Oral, Rat):	3900 mg/kg for $\text{Ca}(\text{NO}_3)_2$
OTHER:	Risk of nitrate toxicity from ingestion. Large amounts may cause dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, convulsions and collapse.	

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:	Calcium Nitrate:	LD50 (fish, 96 hr): > 100 mg/L
BIODEGRADATION:	Biodegradation does not occur.	
BIOACCUMULATION:	No bioaccumulation is expected due to the high water solubility of the product. The nitrate ion is the predominant form of plant nutrition, will follow the natural nitrification/densification cycle. This could lead to algae blooms in static water.	

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:	Large spills should be diked to contain the material to prevent contact with waterways and sewers. Absorb with absorbent materials and dispose in accordance with local regulations.	
RCRA HAZARD CLASS:	Not Listed	

SECTION 13 NOTES:

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SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION:

PROPER SHIPPING NAME: Calcium Nitrate
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENT:

Health: 1 Flammability: 0 Reactivity: 1 Specific: None

WATER TRANSPORTATION:

PROPER SHIPPING NAME: Calcium Nitrate
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENTS:

Health: 1 Flammability: 0 Reactivity: 1 Specific: None

AIR TRANSPORTATION

PROPER SHIPPING NAME: Calcium Nitrate
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENTS:

Health: 1 Flammability: 0 Reactivity: 1 Specific: None

OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA (TOXIC SUBSTANCE CONTROL ACT): Yes

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): N/A

311/312 HAZARD CATEGORIES: 5.1

313 REPORTABLE INGREDIENTS: Calcium Nitrate

STATE REGULATIONS:

INTERNATIONAL REGULATIONS:

CANADA FEDERAL REGULATIONS:

WHMIS CLASSIFICATIONS: Not Regulated
DSL (Domestic Substance List): Calcium Nitrate: Yes

SECTION 15 NOTES:

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SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

PREPARATION INFORMATION: Technical Services Department

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