



Safety Data Sheet

Calcium ammonium nitrate



1. Identification

Product identifier	Calcium ammonium nitrate
Product code	N.Av.
Other means of identification	Ammonium calcium nitrate. CAN. Nitric acid ammonium calcium salt. BCR-178: Calcium ammonium nitrate fertilizer .
Recommended use of the chemical and restrictions on use	Fertilizer/Agricultural.
Manufacturer	Sylvite 3221 North Service Road, Suite 200 Burlington, Ontario Canada L7N 3G2 Tel. 1-800-229-0602 Fax 905-315-2083 https://www.sylvite.ca/
Emergency phone number	Quebec Poison Center: 1-800-463-5060 (toll free in QC) Ontario and Manitoba Poison Centres: 1-800-268-9017 or 419-813-5900 BC Drug and Poison Information Centre: 1-800-567-8911 (toll free in BC) or contact your local poison control centre in the state/province or territory where you live. Canutec: 613-996-6666 (for transportation)

2. Hazard identification

Summary	Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use in a manner that avoids generating dust. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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WHMIS 2015/GHS/OSHA HCS 2012



Oxidizing solids (Category 3)
Acute toxicity, oral (Category 4)
Serious eye damage/eye irritation (Category 1)

DANGER

H272: May intensify fire; oxidizer

H318: Causes serious eye damage

H302: Harmful if swallowed

P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.

P220: Keep and store away from clothing, flammable and combustible materials.

P264: Wash skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves, protective clothing and eye protection.

P301+312+P330: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P310: Immediately call a physician.

P370+378: In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

P501: Dispose of contents and container to an approved waste disposal plant.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Calcium ammonium nitrate	15245-12-2	99 - 100 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Flush with plenty of water. Remove contaminated clothing and wash before reuse. Wash skin with warm water and mild soap. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses if easy to do. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. Consult a physician, preferably an ophthalmologist.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. Never give anything by mouth if victim is unconscious or convulsing. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause severe eye irritation or eye damage. May cause redness and slight irritation of the skin.
Notes to the physician	Apply a symptomatic and supportive treatment. If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	Use an extinguishing agent appropriate for the surrounding fire.
Specific hazards arising from the chemical	This product decomposes under fire conditions to release oxygen that intensifies the fire. May ignite on contact with reducing or organic materials.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment.
Methods and materials for containment and cleaning up	No action shall be taken involving any personal risk or without suitable training. Ventilate the area well. Avoid conditions that produce dust. Vacuum or sweep up and place in an appropriate waste disposal container. Do not pour left over product into original container. Finish cleaning the contaminated surface by rinsing with soapy water.

7. Handling and storage

Precautions for safe handling	This compound may intensify fire. Keep away from heat. Avoid all contact with flammable or combustible materials. Use in well ventilated area. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store in accordance NFPA 430, Code for the Storage of Liquid and Solid Oxidizers. Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Keep away from direct sunlight and heat. Store away from reducing agents, flammable and combustible materials and others incompatible materials (see part 10). Store in the original container. Keep away from food and drink.
Storage temperature	15 to 20°C (59 to 68°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	No IDLH value is reported.			
Calcium ammonium nitrate	TWA (8h)	Respirable Dust Total Dust	5 mg/m ³ 15 mg/m ³	OSHA OSHA
Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.			
Individual protection measures				
Eye	If there is a risk of contact with eyes, wear chemical splash goggles.			
Hands	Chemical-resistant, impervious gloves should be worn at all times when handling this chemical product. Wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Discard gloves with tears, pinholes, or signs of wear. Before using, user should confirm impermeability.			
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. If necessary, wear an apron or long-sleeve protective coverall suit.			
Respiratory	Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. For dust nuisance exposures use type N95 particle respirator.			
Feet	Wear rubber boots to clean up a spill.			



Goggles

Nitrile gloves

9. Physical and chemical properties

Physical state	Solid powder	Flammability	Non-flammable
Colour	White to pale-gray	Flammability limits	N/Ap.
Odour	No	Flash point	N/Ap.
Odour threshold	N/Av.	Auto-ignition temperature	N/Ap.
pH	N/Av.	Sensibility to electrostatic charges	No
Melting point	94 °C (201.2 °F)	Sensibility to sparks and/or friction	No
Freezing point	94 °C (201.2 °F)	Vapour density	N/Ap. (Air = 1)
Boiling point	N/Av.	Relative density	1.1 kg/L (Water = 1)
Solubility	Soluble in water. 144 g/100 ml	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	N/Ap.	Decomposition temperature	N/Av.
Vapour pressure	N/Av.	Viscosity	N/Ap.
Percent Volatile	N/Av.	Molecular mass	N/Ap.
N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	Contact with combustible materials may cause fire. Contact with base release ammonia.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid contact with incompatible materials. Avoid heat, flame and sparks.
Incompatible materials	Reducing agents, organic materials, acids, bases, flammable materials, combustibles materials, powdered metals, phosphorous, cyanides.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Calcium ammonium nitrate Ingestion 2000 mg/kg Rat LD50 Skin >2000 mg/kg Rabbit LD50
Likely routes of exposure	Skin, eyes, inhalation, ingestion.

Delayed, immediate and chronic effects	Eye contact	May cause severe eye irritation or eye damage. Dust and powder can irritate eyes by mechanical friction. Calcium ammonium nitrate (CAS no 15245-12-2) is severely irritating to eyes (rabbit, OECD 405).
	Skin contact	Skin Irritation/Corrosion, Human : Not irritating (IUCLID). The mechanical friction can cause skin irritation. Prolonged or repeated contact may cause irritation of the skin.
	Inhalation	Inhalation of dust may cause nose, throat and respiratory tract irritation. Exposure to decomposition products may be hazardous to health. Serious effects may be delayed after exposure.
	Ingestion	May be harmful if swallowed. May cause gastrointestinal irritation with nausea and vomiting. Swallowing a large amount of this product may cause general acidosis (decreased of the blood pH), cyanosis and blood damage. Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.
	Respiratory or skin sensitization	Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.
	IARC/NTP Classification	No ingredients listed.
	Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.
	Mutagenicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.
	Reproductive toxicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.
	Specific target organ toxicity - single exposure	No target organ is listed.
	Specific target organ toxicity - repeated exposure	No target organ is listed.
Interactive effects	No information available.	
Other information	No information available.	

12. Ecological information

Ecological toxicity	Fish - <i>Lepomis macrochirus</i> - Bluegill LC50 >100 mg/L; 96 hr (OECD 203) Aquatic Invertebrate - <i>Daphnia magna</i> EC50 >100 mg/L; 48 hr (OECD 202) Aquatic Plant - <i>Heterosigma akashiwo</i> EC50 >100 mg/L; 72 hr (OECD 201)
Persistence	Inorganic compounds persist in the environment indefinitely or incorporate into biological systems.
Degradability	Simple inorganic salts are not susceptible to photodegradation. Biodegradable (>70% in 20 days). The ammonium present in the product may be nitrified by bacterial process. Nitrates may be transformed to nitrogen by denitrification by bacterial process.
Bioaccumulative potential	The inorganic salts of this kind are expected to accumulate in plants.
Mobility in soil	The product is soluble in water, it is not expected to partition to the soil. Nitrate and ammonium salts are chemically stable in soil and water.
Other adverse effects	The product promotes a massive growth of algae in the stagnant waters and locally modifying the ecological balance. Will release ammonium ions. As pH increases, more alkaline soil, the fraction of the ammonia gas increases. Ammonia is a toxic hazard to fish. Toxic effect on aquatic organisms due to pH change. This chemical does not deplete the ozone layer.


13. Disposal considerations

Container



Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.

14. Transport information

UN Number	UN 1477
UN Proper Shipping Name	NITRATES, INORGANIC, N.O.S. (Nitric acid, ammonium calcium salt)
Environmental hazards	This material does not contain marine pollutant.
Special precautions for user	Combination packaging: not more than 5 kg per inner packaging for solids. A package shall not weigh more than 30 kg (gross mass). Permit required for transportation with proper DANGER placards displayed on vehicle.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 5.1
Packing group	III
Emergency response guidebook 2016	140
IMO/IMDG - International Maritime Transport	
Classification	UN 1477. NITRATES, INORGANIC, N.O.S. (Nitric acid, ammonium calcium salt). Classe 5.1, GE III. Emergency schedules (EmS-No) F-A, S-Q
IATA - International Air Transport Association	
Classification	UN 1477. NITRATES, INORGANIC, N.O.S. (Nitric acid, ammonium calcium salt). Classe 5.1, GE III.
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Calcium ammonium nitrate	15245-12-2			X	

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
	15245-12-2	X								

Calcium ammonium nitrate																			
<ul style="list-style-type: none">- TSCA: Toxic Substance Control Act- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention- CWA 311: Clean Water Act - List of Hazardous Substances- CWA Priority: Clean Water Act - Priority Pollutant list																			
California Proposition 65																			
No ingredients listed.																			
Other regulations	<ul style="list-style-type: none">- Canadian National Pollutant Release Inventory Substances (NPRI): This material is listed in Ammonia (total). This material is listed in Nitrate ion (in solution at a pH of 6.0 or greater).																		
	<div><div>HMIS<table><tr><td>2</td><td>Health</td></tr><tr><td>0</td><td>Flamability</td></tr><tr><td>3</td><td>Reactivity</td></tr><tr><td>X</td><td>Protective Equipment</td></tr></table></div><div>NFPA<table><tr><td>0</td></tr><tr><td>2 3</td></tr><tr><td>OX</td></tr></table></div></div>									2	Health	0	Flamability	3	Reactivity	X	Protective Equipment	0	2 3
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16. Other information

Date (YYYY-MM-DD)	Sylvite 2016-02-18
Version	02
Other information	<p>DATE OF FIRST VERSION OF SDS: 2013-05-13.</p> <p>CHANGES MADE IN THE VERSION 02: sections 2, 8, 11 and 15.</p> <p>REFERENCES:</p> <ul style="list-style-type: none"> - IUCLID Chemical Dataset, European Chemical Substances Information System (ESIS), Joint Research Centre, http://esis.jrc.ec.europa.eu - OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, http://webnet.oecd.org/HPV/UI/Search.aspx - Ammonium (I) nitrate (1:1), The Registry of Toxic Effects of Chemical Substances, RTECS #: BR9050000. <p>ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: Règlement sur la santé et la sécurité du travail (Québec) GHS: Globally Harmonized System IARC: International Agency for Research on Cancer IDLH: Immediately Dangerous to Life or Health STEL: Short Term Exposure Limit (15 min) TWA: Time Weighted Averages WHMIS: Workplace Hazardous Materials Information System</p>

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