

MATERIAL SAFETY DATA SHEET

Calcium Nitrate

For Emergency Assistance  
 Involving Chemicals Call  
 CHEMTREC (800) 424-9300

WHMIS (Classification)  
 WHMIS CLASS C: Oxidizing material.

**\*\*Section I. Chemical Product Identification\*\***

Distributed by: Vopak Canada Ltd.  
 Van Horne Way  
 Richmond, BC  
 V6X 1W5

Product Name	Calcium Nitrate	Code	LA2837
		CAS#	010124375
Synonym	Not available.		
Chemical Name	Calcium nitrate	DSL	On the DSL list.
		CI#	Not available.
Chemical Family	Not available.		
Chemical Formula	CAN2O6		
Material Uses	Not available.		

**\*\*Section II. Composition and Information on Ingredients\*\***

Name	CAS #	% by Weight	Exposure Limits	
			TLV/PEL	LC50/LD50
Calcium Nitrate	010124375	100	Not available.	ORAL (LD50): Acute: 3900 mg/kg [Rat].

**\*\*Section III. Hazards Identification\*\***

Potential Acute Health Effects      Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Slightly hazardous in case of ingestion. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death.

Potential CARCINOGENIC EFFECTS: Not available.  
Chronic Health MUTAGENIC EFFECTS: Not available.  
Effects TERATOGENIC EFFECTS: Not available.  
DEVELOPMENTAL TOXICITY: Not available.  
Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

**\*\*Section IV. First Aid Measures\*\***

Eye Contact Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Seek medical attention.

Skin Contact After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Hazardous Skin Wash with a disinfectant soap and cover the contaminated Contact skin with an anti-bacterial cream. Seek medical attention.

Inhalation Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

Hazardous Evacuate the victim to a safe area as soon as possible. Inhalation Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion Have conscious person drink several glasses of water or milk. INDUCE VOMITING by sticking finger in throat. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Hazardous No additional information.  
Ingestion

**\*\*Section V. Fire and Explosion Data\*\***

The Product is: May be combustible at high temperature.

Auto-Ignition Not available.  
Temperature

Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Flammable in presence of organic materials.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
Fire Fighting Media and Instructions	Oxidizing material. DO NOT use water jet. Use flooding quantities of water. Avoid contact with organic materials.
Special Remarks on Fire Hazards	Strong oxidizer. Contact with other material may cause fire.
Special Remarks on Explosion Hazards	No additional remark.

**\*\*Section VI. Accidental Release Measures\*\***

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Call for assistance on disposal.

**\*\*Section VII. Handling and Storage\*\***

Precautions	Keep locked up. Keep away from heat. Keep away from sources of ignition. Keep away from combustible materials. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. DO NOT ingest. DO NOT breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles
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such as oxidizing agents, combustible materials, metals.

Storage Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool and well-ventilated area. Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room.

**\*\*Section VIII. Exposure Controls/Personal Protection\*\***

Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection Splash goggles. Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits Not available.

**\*\*Section IX. Physical and Chemical Properties\*\***

Physical State and Appearance Solid. (Crystals solid.) Odor Odorless. Taste Not available.

Molecular Weight 164.1 g/mole Color Colorless.

pH (1% soln/water) 6 [Acidic.]

Boiling Point Not available.

Melting Point 560.C (1040.F)

Critical Temperature Not available.

Specific Gravity 1.82 (Water = 1)

Vapor Pressure Not available.

Vapor Density Not available.

Volatility Not available.

Odor Threshold Not available.

Evaporation Not available.

rate

Viscosity Not available.

Water/Oil Dist. Not available.  
Coeff.

Ionicity (in Not available.  
Water)

Dispersion See solubility in water, methanol, acetone.  
Properties

Solubility Easily soluble in cold water, hot water.  
Partially soluble in methanol, acetone.

**\*\*Section X. Stability and Reactivity Data\*\***

Stability The product is stable.

Instability Not available.  
Temperature

Conditions of No additional remark.  
Instability

Incompatibility Reactive with combustible materials, metals.  
with various  
substances

Corrosivity No specific information is available in our database  
regarding the corrosivity of this product in presence of  
various materials.

Special Remarks Hazardous Decomposition Products: Will liberate toxic  
on fumes of oxides of nitrogen.  
Reactivity

Special Remarks No additional remark.  
on  
Corrosivity

Hazardous No.  
Polymerization

**\*\*Section XI. Toxicological Information\*\***

Routes of Entry Absorbed through skin. Eye contact. Inhalation.

Toxicity to Acute oral toxicity (LD50): 3900 mg/kg [Rat].  
Animals

Chronic Effects CARCINOGENIC EFFECTS: Not available.  
on Humans MUTAGENIC EFFECTS: Not available.  
TERATOGENIC EFFECTS: Not available.  
DEVELOPMENTAL TOXICITY: Not available.  
Repeated exposure to an highly toxic material may produce  
general deterioration of health by an accumulation in one  
or many human organs.

Other Toxic Effects on Humans Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Slightly hazardous in case of ingestion. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death.

Special Remarks on Toxicity to Animals No additional remark.

Special Remarks on Chronic Effects on Humans No additional remark.

Special Remarks on Other Toxic Effects on Humans No additional remark.

**\*\*Section XII. Ecological Information\*\***

Ecotoxicity Not available.

BOD5 and COD Not available.

Products of Biodegradation Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation No additional remark.

**\*\*Section XIII. Disposal Considerations\*\***

Waste Disposal Recycle, if possible. Consult your local or regional authorities.

**\*\*Section XIV. Transport Information\*\***

TDG Classification TDG CLASS 5.1: Oxidizing substance.

Shipping name Calcium Nitrate

PIN UN1454

Packing Group     III

Special            No additional remark.  
Provisions for  
Transport

**\*\*Section XV. Other Regulatory Information\*\***

Other             OSHA: Hazardous by definition of Hazard Communication  
Regulations       Standard (29 CFR 1910.1200).

**\*\*Section XVI. Other Information\*\***

References        Not available.

Other Special    No additional remark.  
Considerations

Verified by Hardev Bendick.

Validated by Hardev Bendick on  
12/1/98.

Information      EH&S Department  
Contact          Vancouver, B.C.  
                  (604) 273-1441

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===== END OF MSDS =====