

Science Kit
& Boreal
Laboratories

177 East Bay, Unit 1
Boreal Laboratories, Ltd.
1770 9th Avenue
North Vancouver, B.C. V8L 2C5

MATERIAL SAFETY DATA SHEET

C0875 81110-03
MSDS No. 113067
Effective Date

Boreal Laboratories, Ltd.
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SECTION I		NAME		24 HOUR EMERGENCY ASSISTANCE	
Product	Chemical	Calcium Nitrate, Tetrahydrate	HEALTH		
Synonyms			FLAMMABILITY		
Formula		Ca(NO ₃) ₂ · 4H ₂ O	REACTIVITY		
RTECS #		EW3000000	HAZARD RATING		
C.A.S. No.		1347734-4	LEAST SLIGHT MODERATE HIGH EXTREME		
			0 1 2 3 4		

SECTION II		HAZARDOUS INGREDIENTS OF MIXTURES	
Principal Hazardous Component(s)		%	TLV Units
NA - Not Applicable			
NE - None Established			

SECTION III		PHYSICAL DATA	
Melting Point (°F)	45°C	Specific Gravity (H ₂ O = 1)	2.36
Boiling Point (°F)	NA	Percent Volatile by Volume (%)	NA
Vapor Pressure (mm Hg)	NA	Evaporation Rate (= 1)	NA
Vapor Density (Air = 1)	NA		
Solubility in Water	Extremely		
Appearance and Odor	White crystals, no odor.		

SECTION IV		FIRE AND EXPLOSION HAZARD DATA	
Flash Point (Method Used)	NA	Flammable Limits in Air % by Volume	Lower Upper
Extinguisher Media	Use any medium suitable for extinguishing supporting fire.		

SPECIAL FIREFIGHTING PROCEDURES	
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.	

UNUSUAL FIRE AND EXPLOSION HAZARDS	
Not combustible, but is a hazardous oxidizing material. In contact with easily oxidizable substances may cause ignition, violent combustion or explosion. Increases the flammability of combustible materials.	

D.O.T.	Calcium nitrate, Oxidizer, UN1454
Approved by U.S. Department of Labor "essentially similar" to form OSHA 20	

SECTION V HEALTH HAZARD DATA

Threshold Limited Value NE

Effects of Overexposure
Irritation by all exposure routes.

Emergency and First Aid Procedures

SKIN: Remove any contaminated clothing. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or upper eyelids occasionally swell. Wash with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician for medical attention immediately. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. INGESTION: If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician immediately.

SECTION VI REACTIVITY DATA

Stability	Unstable	Stable	Conditions to Avoid	Haz
		X		

Incompatibility (Materials to avoid)
Easily oxidizable materials, ammonium hydrazine.

Hazardous Decomposition Products

Nitrogen oxides.

Hazardous Polymerization	May Occur	Will Not Occur	Conditions to Avoid	None
		X		

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled
Avoid contact with oxidizable materials. Remove all sources of ignition. Ventilate area of leak or spill. Clean-up personnel may require protection from inhalation of dust. Spill: Clean up in a manner that does not disperse dust into the air.

Waste Disposal Method

Disposal: Whatever cannot be saved for reclamation may be disposed in a RCRA-approved waste facility. Do not flush to the sewer.

Discharge, treatment, or disposal may be subject to federal, state, or local laws.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type)	Ventilation (Local Exhaust Mechanical General)	Dust	Special Other
		X	X
Protective Gloves		Eye Protection	
Other Protective Equipment		Goggles.	

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing
Store in a cool, dry location.
Keep container tightly closed when not in use.

Other Precautions

Read label on container before using.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No.	2	Date	11/20/87	Approved	K. Kuchel	Chemical Safety Coordinator	RMC
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