

L1206

MATERIAL SAFETY DATA SHEET

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VAN WATERS & ROGERS LTD. 9800 VAN HORNE WAY RICHMOND, B.C. V6X 1W5
 SALES ORDER: 17488840
 VAN WATERS & ROGERS PRODUCT: 11717SKT
 MSDS NUMBER: L1206 VERSION: 4
 DATE PRINTED: 12/04/95

BOART LONGYEAR INC.
 GATE 15 ON FAIRFALL
 403 - 47TH STREET EAST
 SASKATOON SASK. S7K 5H4



WHMIS CODES: D.2B

-----EMERGENCY ASSISTANCE-----

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

-----PRODUCT INFORMATION-----

Product Name: CALCIUM CHLORIDE UW&R Code: L1206

Common Name/Synonym: Calcium Chloride Dihydrate, Calcium Chloride Flake, Calcium Chloride Powdered, Peladow mini-pellets.

CAS Registry Number: 10035-04-8 (dihydrate); 10043-52-4 (anhydrous)

Chemical Name: Calcium Chloride Dihydrate

Chemical Family: N/D

Formula: $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$

Molecular Weight: 147.02

Product Use: Deicer, dust control, mud drilling lubricant, freeze-proofing of ores and aggregates, thawing agent, concrete conditioner.

-----PREPARATION INFORMATION-----

Date Issued: 02/95

Supersedes: 05/93

Prepared By: MSDS Coordinator. Contact during business hours.

Pacific Time (404)-273-1441.

-----HAZARDOUS INGREDIENTS-----

Component(s)/CAS No.	% wt.	Exposure Limits, mg/m ³		
		OSHA PEL	ACGIH TLV	ONTARIO TWA
Calcium Chloride (10035-04-8)	60-100	15* 5**	10*	10*
May contain the following ingredients:				
Sodium chloride (7647-14-5)	1-2	10***	N/D	N/D
Potassium Chloride (7747-40-7)	1-3	10***	N/D	N/D
Bromine Chloride (10475-85-4)	0-1	N/D	N/D	N/D
Water (7732-18-6)	0-5	N/AP	N/AP	N/AP

*Hazardous particulates, total dust.

**Hazardous particulates, respirable fraction.

***OSHA TLV

Local regulated limits may vary.

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-----PHYSICAL PROPERTIES-----

Boiling Point: >815 C approx.
Melting Point: 772 C
Freezing Point: N/D
Specific Gravity (Water=1): approx. 2.2
Vapour Pressure: <.005 mm Hg @20C
Vapour Density: N/AP
pH: Neutral to slightly Alkaline
Solubility in Water: 92.7 g/100 mL at 0 C
326 g/100 mL at 60 C
% Volatile: N/AP
Evaporation Rate (Ether=1): N/AP
Odour Threshold: Odourless
Coefficient of Water/Oil Distribution: N/D
Appearance and Odour: Odourless. Small white flakes. Very hygroscopic.
Physical State: Solid.

-----FIRE AND EXPLOSION INFORMATION-----

Flash Point/Method: N/AP
Lower Flammable Limit: N/AP
Upper Flammable Limit: N/AP
Autoignition Temperature: N/D

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Special Fire Fighting Procedures: For fire fighting wear NIOSH-approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: See "HAZARDOUS REACTIVITY - Materials to Avoid", below.

Hazardous Combustion Products: None.

Explosion Data

Sensitivity to Mechanical Impact: N/AP
Sensitivity to Static Discharge: N/AP
Conditions of Flammability: N/AP

-----HAZARDOUS REACTIVITY-----

Stability: Stable.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: See below.

Materials to Avoid: Reacts violently with bromine trifluoride (BrF_3), or a mixture of boron trioxide and calcium oxide ($\text{B}_2\text{O}_3 + \text{CaO}$). Sulphuric acid; yields hydrogen chloride gas, which is corrosive, irritating, and reactive. Water-reactive materials, such as sodium; causes an exothermic reaction. Methyl vinyl ether; starts runaway polymerization reaction. Fires as in galvanized iron; yields hydrogen gas, which may explode under these conditions. Calcium chloride will: accelerate corrosion of most metals exposed to air; attack aluminum (and most of its alloys) and yellow brass.

Hazardous Decomposition Products: Fumes of chlorides (Cl^-) are given off at temperatures above 1600 C.

Conditions of Reactivity: Will undergo violent polymerization with methyl vinyl ether. The anhydrous, monohydrate, dihydrate and tetrahydrate forms of calcium chloride, when dissolved in water, produce considerable amounts of heat.

-----FIRST AID MEASURES-----

Inhalation: Promptly remove to fresh air.
In Case of Eye Contact: Flush eyes promptly with plenty of running water, continuing for at least 15 minutes. Get medical attention.
In Case of Skin Contact: Remove contaminated clothing. Wash with plenty of soap and running water.

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If Ingested: If conscious, immediately give 2 to 4 glasses of water, and induce vomiting by touching finger to back of throat. Get medical attention promptly.

Notes to Physician: N/D

-----HEALTH HAZARD INFORMATION-----

Primary Routes of Exposure: Inhalation, skin and eye contact, ingestion.

Signs, Symptoms and Effects of Exposure

Inhalation: Dust or mist inhalation may irritate nose, throat and lungs.

Eye Contact: May irritate or burn eyes. Effects may be slow to heal.

Skin Contact: May cause skin irritation. Prolonged contact when moisture is present may result in superficial burns. Contact with abraded skin or cuts can cause severe necrosis.

Ingestion: Low in toxicity. May irritate gastrointestinal tract, mouth and throat and cause nausea and vomiting.

Chronic Effects of Exposure: N/AP

Medical Conditions Aggravated by Exposure: N/D

Additional Information: N/D

-----TOXICITY DATA-----

LD50 Oral (rat): 967-1668 mg/kg

LD50 Dermal (rabbit): >5000 mg/kg

LC50 (species): N/D

Reproductive Toxicity: N/D

Sensitization: N/D

Irritation: N/D

Reproductive Effects: N/D

Teratogenicity: N/D

Mutagenicity: Negative for in vitro tests.

Toxicologically Synergistic Products: N/D

Other Data: N/D

Environmental Effects: Harmful to aquatic life at concentrations greater than 500 ppm. CaCl₂ does not bioaccumulate. TLM 96>1000 mg/l.

LC50 (bluegill): 8400-10650 mg/L

LC50 (mosquito fish): 13400 mg/L at 96 Hr.

LC50 (unspecified marine fish): 2400 mg/L 48 Hr.

LC50 (water flea): 259-3005 mg/L 48 Hr.

-----PREVENTATIVE MEASURES-----

Ventilation (Engineering Controls): Provide general and/or local exhaust ventilation to maintain dust or fume levels below exposure limits.

Personal Protective Equipment

Respiratory: For dusty or misty conditions, wear NIOSH-approved dust or mist respirator.

Eye: For dusty or misty conditions, or when handling solutions where there is probability of eye contact, wear chemical safety goggles and hard hat. Under these conditions, do not wear contact lenses.

Clothing: As a minimum, wear long-sleeve shirt, trousers.

Footwear: Wear rubber boots for routine product use.

Gloves: Cotton gloves permitted for dry product, impervious gloves when handling solutions.

First Aid Protective Measures: Eye wash facility should be provided in storage or general work area.

Action to Take for Spills or Leaks: Shovel up dry chemical and place in seal drum with cover. Cautiously spray residue with plenty of water. Prevent contaminated water from entering sewers and water courses.

Waste Disposal Method: Consistent with the requirements of local waste disposal authorities.

Storage and Handling Precautions and Equipment: Store in a cool, dry area.

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Prolonged storage may cause product to cake and become wet from atmospheric moisture.

Special Shipping Information: N/D

Other Precautions: Avoid contact with eyes, skin or clothing. Avoid breathing mist. Use good personal hygiene and housekeeping. Use cool water when dissolving calcium chloride. Heat developed by solutions is very high during mixing. Leather clothing and shoes will be damaged by calcium chloride

-----REGULATORY INFORMATION-----

TDG Classification

Shipping Name: Non-Regulated

UN: N/R

Class:

PKG:

WHMIS Classification: D.2B

Listed on the Domestic Substances List (DSL): Yes, as Calcium Chloride Anhydrous, CAS Registry Number 10043-52-4.

-----FOR PRODUCT AND SALES INFORMATION-----

Contact Your Local Van Waters & Rogers Ltd. Branch Office.

-----NOTICE-----

VAN WATERS & ROGERS LTD. EXPRESSLY DISCLAIMS ALL EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT PROVIDED.

-----REVISION INFORMATION-----

04/93: Reconstruction P1270001.

05/93: Change WHMIS Classification. Transition period summer 1993. Bags may not be labelled.

02/95: Revised: eye hazards, physical properties, ecotoxicity, and toxicological data.

Added: Handling information, possible ingredients and incompatible materials, toxicological data.

Legend: N/AP - Not Applicable. N/D - No Data Available.

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