




Material Safety Data Sheet

MASTER MELT 50

A. GENERAL INFORMATION

TRADE NAME (COMMON NAME): LIQUID CALCIUM CHLORIDE SOLUTION WITH CORROSION INHIBITORS	CLASSIFICATION AND SYMBOL:  Class D2B
CHEMICAL NAME AND/OR SYNONYM: CALCIUM CHLORIDE, MAGNESIUM CHLORIDE, SODIUM CHLORIDE	CAS NO: 10043-52-4 (anhydrous), 7786-30-3(anhydrous),7647-14-5(anhydrous),
FORMULA: CaCl ₂ , 15-20%, MgCl ₂ 2 - 3%, NaCl 8-10% With 0.5 - 2%/v proprietary corrosion inhibitor	MOLECULAR WEIGHT: 110.98 as anhydrous CaCl ₂ , 95.22 as anhydrous MgCl ₂ , 58.453 NaCl
MANUFACTURER/ADDRESS: Pollard Highway Products 21 3 rd Concession Rd Harrow, Ontario N0R 1G0	SUPPLIER/DISTRIBUTOR: Pollard Highway Products 21 3 rd Concession Rd Harrow, Ontario N0R 1G0

B. PREPARATION INFORMATION

CONTACT: Manager, Product Safety	CONTACT PHONE NUMBER: (519) 738 -2213	LAST ISSUE DATE: July 2005	CURRENT ISSUE DATE: Jan 2006
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C. TOXICOLOGICAL PROPERTIES

INHALATION: Mist inhalation may irritate nose, throat and lungs. May cause nose bleeds.	
INGESTION: Low in toxicity. May irritate gastrointestinal tract and cause nausea and vomiting.	
SKIN: May cause skin irritation. Under conditions of prolonged contact or when moisture is present, superficial burns may result. Contact with abraded or broken skin can cause severe necrosis.	
EYES: May irritate or burn eyes.	
ACUTE TOXICITY: Moderate toxic LD ₅₀ (oral-rat) 1000 mg/kg. Anhydrous basis LD ₅₀ (oral-mouse) 1940 mg/kg Anhydrous basis	EXPOSURE LIMITS American Conference of Governmental Industrial Hygienists (ACGIH) Threshold limit value – Time Weighted Average (TLV-TWA) guideline for nuisance particulate (liquefied mist) 10 mg/m ³
CHRONIC TOXICITY: Not applicable	BIOLOGICAL EXPOSURE INDICES (BEI): Not applicable
OTHER: Not applicable	

D. PHYSICAL DATA

MATERIAL IS AT NORMAL CONDITIONS: LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GAS <input type="checkbox"/> <input type="checkbox"/>	APPEARANCE AND COLOR: Clear brown	ODOR THRESHOLD: Slight sweet
BOILING POINT: 115°C FREEZING POINT: 15% as CaCl ₂ -29° C 17% as CaCl ₂ -32° C 19% as CaCl ₂ -34° C	SPECIFIC GRAVITY: (H ₂ O = 1) 15% CaCl ₂ -1.22 @ 16C 17% CaCl ₂ -1.23 19% CaCl ₂ -1.24	VAPOR DENSITY: (AIR =1) Not applicable
SOLUBILITY IN WATER: Complete	pH 7.0 – 7.5	VAPOR PRESSURE: (mm Hg @ 20°C) 1.1 kPa 19% (PSIG) 19% CaCl ₂
EVAPORATION RATE: (Ether = 1.0) Not applicable Slow <0.3 Fast >3.0 Medium 0.3 – 3.0	% VOLATILES BY VOLUME: (AT 20°C) Not applicable	MOLECULAR WEIGHT: 110.99 as anhydrous CaCl ₂
		COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

E. REACTIVITY DATA

STABILITY: UNSTABLE <input type="checkbox"/> STABLE <input checked="" type="checkbox"/>	CONDITIONS TO AVOID: Not applicable
INCOMPATIBILITY (MATERIALS TO AVOID): Reacts violently with bromine trifluoride (BrF ₃), or a mixture of boron trioxide and calcium oxide (B ₂ O ₃ + CaO). Water-reactive materials, such as sodium: causes an exothermic reaction. Methyl vinyl ether; starts runaway polymerization reaction. Zinc as in galvanized iron: yields hydrogen gas, which may explode under these conditions.	
HAZARDOUS DECOMPOSITION PRODUCTS: Fumes of Chlorides (Cl) are given off at temperature above 1600°C.	
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR <input checked="" type="checkbox"/> MAY OCCUR <input type="checkbox"/>	OTHER PRECAUTIONS: 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.

F. FIRE OR EXPLOSION HAZARD

CONDITIONS OF FLAMMABILITY: Not applicable	FLASH POINT: METHOD NA
HAZARDOUS COMBUSTION PRODUCTS: None	
UPPER FLAMMABLE LIMIT: NA LOWER FLAMMABLE LIMIT: NA AUTOIGNITION TEMPERATURE: °C	EXPLOSION HAZARDS: See Section E-Incompatibility.
SENSITIVITY TO MECHANICAL IMPACT: Not applicable	
SENSITIVITY TO STATIC DISCHARGE: Not applicable	
FIRE EXTINGUISHING PROCEDURES: Use extinguisher media appropriate for surrounding fire. For fire fighting wear NIOSH-approved self-contained breathing apparatus.	

G. HAZARDOUS INGREDIENTS (MIXTURES ONLY)

MATERIAL OR COMPONENT/C.A.S. #	CONCENTRATION	HAZARD DATA
Not applicable		

H. PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION:

For misty conditions, wear NIOSH-approved mist respirator.
Respirator should not contain any metals corrodible by these solutions.

EYES AND FACE:

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

HANDS, ARMS, AND BODY:

As a minimum, wear long-sleeve shirt and trousers, impervious boots, gloves and apron, for routine product use.

STORAGE:

Keep container closed. Protect from physical damage. Do not store in metals which this solution corrodes. See Section E.

NORMAL HANDLING:

Avoid contact with eyes, skin or clothing. Avoid breathing mist. Use good personal hygiene and housekeeping.

ENGINEERING CONTROLS:

Ventilation: Provide general and/or local exhaust ventilation to maintain mist or vapor levels below exposure limits.

Eye wash facility should be provided in storage and general work area.

ENVIRONMENTAL:

DEGRADABILITY:

Not applicable

AQUATIC TOXICITY:

Harmful to aquatic life at concentrations greater than 500 ppm. CaCl_2 does not bioaccumulate. $\text{TL}_{m96} > 1000 \text{ mg/l}$

SPILL OR LEAK (ALWAYS WEAR PERSONAL PROTECTIVE EQUIPMENT):

Dilute small spills cautiously with plenty of water. Mop into metal drum and cover. (Many metals are slowly corroded by these solutions.) Cautiously spray residue with plenty of water. **Large spills:** dike up with any available absorbent (commercial, sand, etc.). Pump into same containers, and treat as above.

WASTE DISPOSAL:

Consistent with the requirements of local waste disposal authorities.

CANADIAN SHIPPING INFORMATION:

TDGA CLASS: Not applicable	PIN:	LABEL:
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I. FIRST AID MEASURES

INHALATION:

Promptly remove to fresh air. Get medical attention if any discomfort from inhalation.

INGESTION:

If conscious, immediately give 2 to 4 glasses of water, and induce vomiting under medical supervision. Get medical attention promptly.

SKIN:

Remove contaminated clothing. Wash with plenty of soap and running water. Get medical attention if irritation persists.

EYES:

Flush eyes promptly with plenty of running water, continuing for at least 15 minutes. Get medical attention.

THIS MATERIAL SAFETY DATA SHEET IS OFFERED FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION AS REQUIRED BY FEDERAL HAZARDOUS PRODUCTS ACT AND RELATED LEGISLATION. THE INFORMATION IS BELIEVED TO BE ACCURATE BUT POLLARD HIGHWAY PRODUCTS PROVIDES NO WARRANTIES, EITHER EXPRESSED OR IMPLIED.