



**CALCIUM-MAGNESIUM CHLORIDE
SOLUTION 29% TO 35%**

Material Safety Data Sheet

A. GENERAL INFORMATION



TRADE NAME (COMMON NAME): CALCIUM-MAGNESIUM CHLORIDE SOLUTION- DM29 to DM35		CAS NUMBER: 10043-52-4 (anhydrous), 7647-14-5 (anhydrous), 7791-18-6	
CHEMICAL NAME AND/OR SYNONYM: LIQUID CALCIUM CHLORIDE, MAGNESIUM CHLORIDE AND SODIUM CHLORIDE BRINE		MOLECULE WEIGHT: 110.98 as anhydrous CaCl ₂ , 95.22 as anhydrous MgCl ₂ , 58.453 NaCl	
FORMULA: CaCl ₂ , 25-30%, MgCl ₂ 3-6%, NaCl <2%			
MANUFACTURER/ADDRESS: TRILLIUM DISTRIBUTION INC. 2351 GREENFIELD ROAD COURTRIGHT, ONTARIO N0N 1G0			
CONTACT: MARKETING MANAGER	PHONE NUMBER: 1-800-265-5619	LAST ISSUE DATE: January 31, 2017	CURRENT ISSUE DATE: November 15, 2017

B. FIRST AID MEASURES

EYES: Flush promptly with plenty of water, continuing for at least 15 minutes. Get medical attention.	EMERGENCY PHONE NUMBER: (800) 265-5619
SKIN: Wash with plenty of water.	
INHALATION: Remove to fresh air.	
INGESTION: If conscious, immediately give 2 to 4 glasses of water, and induce vomiting by touching finger to back of throat. Get medical attention for irritation, ingestion, or discomfort from inhalation.	

C. HAZARDS INFORMATION

INHALATION:

Vapors are unlikely due to physical properties. Mists may cause irritation to the upper respiratory tract.

INGESTION:

If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

SKIN:

In case of contact, immediately wash skin with plenty of soap and water for at least 15 minutes

EYES:

In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

PERMISSIBLE CONCENTRATION: AIR

NA

BIOLOGICAL:

None

UNUSUAL CHRONIC TOXICITY:

None

FLASH POINT:

Not flammable

OPEN CUP

CLOSED CUP

**AUTO IGNITION
TEMPERATURE**

NA

FLAMMABLE LIMITS IN AIR (% BY VOL.)

LOWER – NA

UPPER - NA

UNUSUAL FIRE AND EXPLOSION HAZARDS

NA

D. PRECAUTIONS/PROCEDURES

FIRE EXTINGUISHING AGENTS RECOMMENDED:

Use extinguishing media appropriate for surrounding fire.

FIRE EXTINGUISHING AGENTS TO AVOID:

None identified

SPECIAL FIREFIGHTING PRECAUTIONS:

None identified

VENTILATION:

None identified

NORMAL HANDLING:

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

STORAGE:

Keep container tightly closed. Suitable for any general chemical storage area.

SPILL OR LEAK:

Wear suitable protective clothing. Carefully sweep up and remove.

SPECIAL: PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS:

None

E. PERSONAL PROTECTIVE EQUIPMENT**RESPIRATORY PROTECTION:**

None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or dust mask.

EYES AND FACE:

Safety goggles

HANDS, ARMS, AND BODY:

Proper gloves are recommended

F. PHYSICAL DATA**MATERIAL IS AT NORMAL CONDITIONS:**

LIQUID SOLID GAS

Slurry

APPEARANCE AND COLOR:

Clear to slightly turbid liquid

BOILING POINT: 116 °C

MELTING POINT: 7 °C

SPECIFIC GRAVITY:

(H₂O = 1) 1.356 @ 27 °C

VAPOR DENSITY:

(AIR = 1)
Not applicable

SOLUBILITY IN WATER:

(% BY WEIGHT Very Soluble as CaCl₂, 45%,
NaCl, 24%, MgCl₂, 35%

pH

slightly acidic

VAPOR PRESSURE:

(mm Hg @ 20°C) (PSIG)
mm Hg @ 20 C 1.1 kPa 35%

EVAPORATION RATE:

(Butyl acetate = 1) (Ether = 1.0)

Not applicable

% VOLATILES BY VOLUME:

(AT 20°C)

Not applicable

G. REACTIVITY DATA**STABILITY:**

UNSTABLE STABLE

CONDITIONS TO AVOID:

Not applicable

INCOMPATIBILITY (MATERIALS TO AVOID):

Reacts violently with bromine trifluoride (BrF₃), or a mixture of boron trioxide and calcium oxide (B₂O₃ + CaO). Water-reactive materials, such as sodium; causes an exothermic reaction. Methyl vinyl ether; starts runaway polymerization. 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 temperatures above 1600 °C

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR
 MAY OCCUR

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.

H. HAZARDOUS INGREDIENTS (MIXTURES ONLY)**HAZARDOUS INGREDIENTS**

NONE

This is not a hazardous or controlled product as defined under Canada's WHMIS regulations

This is not a hazardous or controlled product as defined under Canada's Hazardous Products Act and Controlled Products Regulations.

This product is not hazardous as defined by Canada's Transportation of Dangerous Goods Act.

I. ENVIRONMENTAL**DEGRADABILITY/AQUATIC TOXICITY:**

Harmful to aquatic life at concentrations greater than 500 ppm. CaCl₂, NaCl and MgCl₂
 Does not bioaccumulate. TLm 96>100mg/l

Aquatic Toxicity: None identified

OCTANOL/WATER PARTITION COEFFICIENT

NA

EPA HAZARDOUS SUBSTANCE?

(CLEAN WATER ACT SECT. 311) YES NO IF SO, REPORTABLE QUANTITY:

WASTE DISPOSAL METHODS (DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS):

Treatment or disposal of waste generated by use of this product should be reviewed in terms of applicable federal, state and local laws and regulations. Users are advised to consult with appropriate regulatory agencies before discharge, treatment or disposal.

RCRA STATUS OF UNUSED MATERIAL IF DISCARDED:

Not a "hazardous waste".

HAZARDOUS WASTE NUMBER: (IF APPLICABLE)

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J. REFERENCES**PERMISSIBLE CONCENTRATIONS REFERENCES:**

None

REGULATORY STANDARDS:

None

DOT CLASSIFICATION:

Not regulated

GENERAL:

K. ADDITIONAL INFORMATION

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