

MATERIAL SAFETY DATA SHEET

Product name: Calcium Chloride –Granules/Powder/pellet Date: Nov 1, 2017

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1 Product And Company Identification :

Trade Name: Calcium Chloride

Chemical Name and/or Synonym: Calcium Chloride, Anhydrous

Formula: CaCl₂ CAS No. 10043-52-4

Product Use: Delcer, dust control, mud drilling lubricant, freeze-proofing of ores and

aggregates, thawing agent, concrete conditioner

Food grade material is used as a food additive

2 Composition/Data on components:

Chemical characterization Description:

(CAS#): Calcium Chloride-Granules (10043-52-4)

Identification number(s): NONE ALLOCATED

3 Hazards identification

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

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

Skin: 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.

Eyes: May irritate or burn eyes

4 First aid measures

Inhalation: Promptly remove to fresh air. Get medical attention

Ingestion: If conscious, immediately give 2 to 4 glasses of water, and induce vomiting under medical supervision

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 at least 15 minutes.

Get medical attention.

Respiratory Protection: For dusty or misty conditions wear NIOSH approved dust or mist Respirator

5 Fire fighting measures

Conditions of Flammability: Not applicable

Flash Point Method: Not applicable

Hazardous Combustion Products: None

% By Vol in Air: Upper Flammable Limit/Lower Flammable Limit: N/A

Auto Ignition Temperature: °C

Explosion Hazards: See section E - Incompatibility

Sensitivity to Mechanical Impact: Not applicable

Sensitivity to Static Discharge: Not applicable

Fire Extinguishing Procedures: Use extinguishing media appropriate for surrounding fire. For fire fighting wear NIOSH approved self contained breathing apparatus.

6 Accidental release measures

Spill or Leak (Always Wear Personal Protective Equipment)

Shovel up dry chemical and place in metal drum with cover. Cautiously spray residue with plenty of water. Keep contaminated water from entering sewers and water course.

7 Handling and storage

1) *Storage:* Cool, dry area. Prolonged storage may cause product to cake and become wet from atmospheric moisture.

2) *Normal Handling:* Avoid contact with eyes, skin or clothing. Avoid breathing dust. Use good personal hygiene and housekeeping.

3) *Ventilation:* Provide general and/or local exhaust ventilation to maintain dust or fume levels below exposure limits. Eye wash facility should be provided in storage and general work area.

8 Exposure controls and personal protection

1) *Eyes and Face:* For dusty or 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.

2) *Hands/Arms and Body:* As a minimum, wear long-sleeved shirt, trousers, rubber boots and gloves for routine product use. Cotton gloves permitted for dry product, impervious gloves when using solutions.

9 Physical and chemical properties:

Material is at Normal Conditions: Solid

Appearance and Colour: White Granules

Odour: Odourless

Boiling Point: >1600 Freezing Point:

Melting Point:

Specific Gravity

Vapor Density (Air=1): Not applicable

Vapor Pressure: (mm Hg @ 20) Not applicable

Flash Point (Closed cup) : Not Available

Solubility in Water: 97.7 g/100ml 0 36 g/100ml 60

PH: Neutral to slightly alkaline

Evaporation Rate (Ether=1.0): N/A %Volatiles by Volume: N/A

Molecular Wght:

10 Stability and reactivity

Stability: Stable Conditions to Avoid: Not Applicable

Incompatibility: Reacts violently with bromine trifluoride (BrF₃), or a mixture of boron

trioxide and calcium oxide (B₂O₃+CaO). Sulfuric 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. Zinc as in

galvanized iron yield hydrogen gas with solutions, which may explode under these conditions.

Hazardous Decomposition Products: Fumes of Chlorides (Cl₂) are given off at temperatures above 1600 .

Hazardous Polymerization: Will not 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, product considerable amounts of heat.

11 Toxicological information

Acute Toxicity: Moderately toxic LD₅₀ (oral-rat): 1000 mg/kg LD₅₀ (oral-mouse): 1940 mg/kg

Chronic Toxicity: Not applicable

Exposure Limits: Ontario Ministry of Labour Time-Weighted average exposure value(TWAEV) for nuisance particulate 10 mg/m³

12 Ecological information:

Degradability: Not applicable

Aquatic Toxicity: Harmful to aquatic life at concentrations greater than 500ppm.

CaCl₂ does not bioaccumulate. TLM 96>1000 mg/l

13 Disposal considerations

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

14 Transport information

Not a hazardous material for transportation.

DOT regulations:

Hazard class: None

Land transport ADR/RID

ADR/RID class: None

Maritime transport IMDG:

IMDG Class: None

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: None

Transport/Additional information: Not dangerous according to the above specifications.

15 Regulations

National regulations: All components of this product are not listed in the Environmental

Protection Agency Toxic Substances Control Act Chemical substance Inventory.

U.N.NO.: NONE ALLOCATED

DG CLASS: NONE ALLOCATED

SUB RISK: NONE ALLOCATED

HAZCHEM: NONE ALLOCATED

POISON SCHEDULE: NONE ALLOCATED

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.