Material Safety Data Sheet

Calcium Chloride Brine

I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Calcium Chloride Brine
Date Revised: 7/2010
CAS#: 10043-52-4

Supplier:

NOV FluidControl
4310 N. Sam Houston Parkway E
Houston, TX 77032
Office: (713) 482-0500
Fax: (713) 482-0695
Company website: www.nov.com

Emergency Telephone Number:
CHEMTREC: 1-800-424-9300 or International +1-703-527-3887

II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components: Calcium Chloride
CAS Number: 10043-52-4
Percent: 24-40

Routes of Exposure: Calcium chloride can affect the body if it is ingested or if it comes in contact with the eyes or skin.
Summary of Acute Health Hazards Ingestion: May irritate gastrointestinal tract and cause nausea and vomiting. Inhalation: Causes irritation of nose and throat. Additional effects may include shortness of breath. Skin: Causes mild irritation. Additional effects may include blisters or sores. Eyes: Causes irritation and possible transient corneal injury. Tearing may occur.
Summary of Chronic Health Hazards: May cause perforation of the nasal septum and nosebleeds. Contact with heated product can cause thermal burns with resultant corneal injury.
Effects of Overexposure: Possible superficial burns and transient corneal injury.
Medical Conditions Generally Aggravated by Exposure: N/A

III. FIRST AID MEASURES

Eyes: Promptly flood with water and continue washing for at least 15 minutes. Consult an ophthalmologist.
Skin: If necessary, remove contaminated clothing and shoes. Flush affected areas with plenty of water for at least 15 minutes.
Ingestion: If swallowed will cause nausea and vomiting. If victim is conscious, have victim drink water. If victim is unconscious or having convulsions, do nothing except keep victim warm GET MEDICAL ATTENTION.
Inhalation: Move to fresh air; if breathing is difficult or discomfort persists, GET MEDICAL ATTENTION.
**IV. FIRE FIGHTING MEASURES**

Flash Point: Not flammable  
Auto ignition Temperature: Not flammable

Lower Explosive Limit: N/A  
Upper Explosive Limit: N/A

Unusual Fire and Explosion Hazards: N/A

Extinguishing Media: This product is non-flammable.

Special Firefighting Procedures: Avoid breathing corrosive vapors; keep upwind. Dike area to prevent runoff and contamination of water sources.

**V. ACCIDENTAL RELEASE MEASURES**

Dike the spilled liquid, and either pump back into original container or cover with sand or clay-type substance for absorption.

**VI. HANDLING & STORAGE**

Store at ambient temperature. Prevent possible eye and skin contact by wearing protective clothing and equipment. Eye wash and safety shower should be provided within the immediate work area for emergency use. Launder contaminated clothing before re-use.

**VII. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Respiratory Protection:** N/A  
**Ventilation:** Use local exhaust in enclosed areas. Natural ventilation for outdoor areas.

**Protective Clothing:** Employees should be provided with and use impervious clothing, rubber gloves, and rubber boots. Leather work boots and/or leather products will dehydrate with resultant shrinkage and possible destruction.

**Eye Protection:** Employees should be provided with and required to use splash-proof safety goggles and splash shields where there is any possibility of calcium chloride contacting the eyes. Other **Protective Clothing or Equipment:** N/A  
**Clothing** or **Equipment:** N/A  
**Work/Hygienic Practices:** Avoid contact with the eyes, skin, and mucous membranes. Wash hands thoroughly with soap and water before eating, drinking, smoking or using toilet facilities. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

**VIII. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Liquid  
**Melting Point/Range:** N/A

**Appearance/Color/Odor:** Clear to straw colored liquid, odorless  
**Solubility in Water:** 100%

**Solubility in Solution:**  
- 1.35 @ 60°F (for 34.7% Solution)
- 1.39 @ 60°F (for 37.5% Solution)

**Specific Gravity:**
- (Water=1): 1.3 @ 60°F (for 30% Solution)
- (Air=1): N/A

**pH:** 3.8-9  
**Boiling Point/Range:** 118°C (244°F) for 38% Solution; 115°C for 34.7% Solution.

**Vapor Pressure (mmHg):** N/A

**Molecular Weight:** 110.99 (for pure CaCl₂)

**Volatiles:** 70% for 33 Be; 65.3% for 37.4 Be; 62.5% for 40 Be

**How to detect this compound:** N/A
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IX. STABILITY & REACTIVITY DATA

Stability: Stable  Hazardous Polymerization: Will not occur
Conditions to Avoid: N/A
Materials to Avoid: Metals will slowly corrode in aqueous solutions. Keep away from galvanized iron, aluminum, and tin. Boric acid and calcium oxide are incompatible.

Hazardous Decomposition Products: If liquid completely dries from fire, thermal decomposition products may include toxic and corrosive fumes of chlorine and hydrogen chloride. Product may react with some metals (aluminum, zinc, tin, etc.) to release flammable hydrogen gas.

X. TOXICOLOGICAL INFORMATION

Toxicity Data (anhydrous calcium chloride):
TDLO: 112 g/kg, oral, 20 weeks, rat
LDLO: 274 mg/kg, oral, rat
LD50: 1000 mg/kg, oral, rat
LD50: 264 mg/kg, intraperitoneal, rat
Moderately toxic by ingestion, slightly toxic by dermal absorption.

XI. ECOLOGICAL INFORMATION

N/A

XII. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal regulations.

XIII. TRANSPORTATION INFORMATION

DOT Proper Shipping Name: N/A DOT Hazard Class/ I.D. No.: N/A

XIV. REGULATORY INFORMATION

Reportable Quantity: N/A NFPA Rating: Health - 1; Fire - 0; Reactivity - 0 0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme
SARA Title III: Section 311: Acute Hazard Carcinogenicity Lists: No NTP: No IARC Monograph: No
OSHA Regulated: No
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XV. OTHER INFORMATION

Synonyms/Common Names: Calcium Chloride-Liquid Chemical Family/Type: Inorganic Salt

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