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PHONE (772) 766-4001

Material Safety Data Sheet CALCIUM HYPOCHLORITE – 65% & 70%

**FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS
CALL CHEMTRIC (800) 424-9300**

PRODUCT IDENTIFIER

Synonym(s): Calcium oxychloride, bleaching powder, Chlorinated lime and granulated chlorine

Chemical Family: Salt of hydrochlorous acid

Molecular Formula: Ca(OCl)₂

PIN – UN/NA Number(s): UN1748, UN2880

Product Use: Disinfection in swimming pools and drinking water supplies; treatment of industrial cooling water; climate control; odor control; sewage and waste water treatment

HAZARDOUS INGREDIENTS

Ingredients: (by weight) 65% Calcium hypochlorite – Inerts 35%
70% Calcium hypochlorite – Inerts 30%

CAS Registry Number – Calcium hypochlorite: 7778-54-3

CAS Registry Number – Calcium hydroxide: 1305-62-0

PHYSICAL DATA

Physical State: Solid

Odor and Appearance: White, free flowing granular solid, with a strong chlorine odor

Odor Threshold: Not available

Specific Gravity: 2.00-2.20 @ 20°C (water=1@40°C)

Vapor Pressure: Not applicable

Vapor Density: Not applicable

Evaporation Rate: Not applicable

Boiling Point: Not applicable

Melting Point: Decomposes at temperatures above 100°C

pH: 11.5 (5% solution)

Coefficient of Water/Oil Distribution: Not applicable

HEALTH HAZARD DATA

Route of Entry and Effects of Short Term (Acute) Exposure –

Inhalation: dust and mist irritate the nose and throat. When mixed with acids, chlorine gas is released. This gas causes irritation of the respiratory tract. Prolonged exposure to high concentrations of chlorine gas may result in severe lung damage.

Eye Contact: Exposure to calcium hypochlorite can cause eye damage. Concentrated solutions cause burns which may result in permanent eye damage if not promptly treated.

Skin Contact: Calcium hypochlorite dust and solutions can cause irritation, and in severe cases, chemical burns.

Ingestion: When ingested, there will be burning in the mouth and throat. Calcium hypochlorite can cause abdominal cramps and nausea, which may lead to convulsions, coma and death.

Route of Entry and Effects of Short Term (Acute) Exposure –

Skin irritation may occur from repeated or prolonged skin contact.

Exposure Limits –

Time Weighted Average (TLV-RWA): Not available

Irritancy: Not available

Sensitization of Product: Not available

Animal Toxicity Data –

AC50: (Inhalation, rats) – 148 mg/l

LD50: (Oral, rats) – 1300 mg/kg

Carcinogenicity: Not carcinogenic (IARC and ACGIH)

Reproductive Toxicity: Not available

Name of Toxicologically Synergistic Products: Not available

SPECIAL INFORMATION

Personal protective equipment

Respiratory Protection: Dust mask or NIOSH approved canister type respirators suitable for chlorine.

Eye/Face Protection: chemical safety goggles. A face shield may be necessary.

Skin Protection: Impervious gloves, body suits, boots and /or other resistant protective clothing. Have a safety shower/eye wash fountain readily available in the immediate work area.

Materials for Protective Clothing: Butyl rubber; natural rubber; neoprene; nitrile/polyvinyl chloride; polyurethane; polyvinyl chloride.

Engineering Controls: Local exhaust ventilation required where exposure to dust might occur.

FIRST AID MEASURES

Inhalation: Remove source of contamination or move victim to fresh air. If breathing has stopped, trained personnel should begin artificial respiration of, if the heart has stopped, begin cardiopulmonary resuscitation (CPR) immediately.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently running water for 20 minutes, holding the eye(s) open. Take care not to rinse contaminated water into non-affected eye. Obtain medical attention immediately.

Skin Contact: as quickly as possible, flush contaminated area with lukewarm, gently running water for at least 15 minutes. Under running water, remove contaminated clothing, shoes and leather goods. Obtain medical attention immediately.

Ingestion: Never give anything by mouth if victim is rapidly losing consciousness, or if unconscious or convulsing. Have the victim rinse mouth thoroughly with water. Do not induce vomiting. Have victim drink one cup (240-300 ml, 8-10 oz.) of water to dilute material in stomach. If vomiting occurs naturally, rinse mouth and repeat administration of water. If breathing has stopped, trained personnel should begin artificial respiration. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately. Obtain medical attention immediately.

PROCEDURES IN CASE OF LEAK OR SPILL

Precautions: Restrict access to area until completion of clean up. Wear adequate personal protective equipment. Extinguish or remove all ignition sources. Ventilate area.

Clean Up: Do not touch spilled material. Prevent material from entering sewers or confined spaces. Shovel into clean, dry, labeled containers. Flush area with water. Contaminated materials may be dissolved in water; then treated with a reducing agent such as sodium sulfite. Care should be taken while handling contaminated materials, due to fire risk.

Waste Disposal: Consult appropriate Federal, State/Provincial and local regulatory authorities to ascertain proper disposal procedures. Care should be taken not to mix waster calcium hypochlorite with incompatible materials. Calcium hypochlorite should be dissolved in water and the available chlorine treated using a reducing agent such as sodium sulfite.

Handling Procedures: Avoid generating dust. Avoid mixing pure material with contaminated material. Use smallest possible amount in designated areas with adequate ventilation.

Storage Requirements: Store in original container. Store tightly closed containers in a clean, cool, open or well-ventilated area. Keep out of sunlight.

Special Shipping Requirements: Transportation in the United States is governed by the Department of Transportation (DOT). Refer to DOT regulations (CFR 49) for special shipping requirements for calcium hypochlorite (UN #s UN1748, UN 2880). Transportation in Canada is governed by Transport Canada. Refer to the Transportation of Dangerous Goods (TDG) Regulations for special shipping requirements for calcium hypochlorite.