

## Material Safety Data Sheet

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### 1. Product Identification

**Product Identity:** Calcium Hypochlorite Granular 70%

**Molecular Weight:** 220.27

**Chemical Formula:** Ca(OCl)<sub>2</sub>

**Technical Information:** 270-830-1200

**Emergency Number:** 800-424-9300

**(CHEMTREC)**

**Synonyms:** Calcium Hypochlorite Granular; Cal Hypo Granules; Ca(OCl)<sub>2</sub>;

#### Distributed By Brenntag

Brenntag Great Lakes LLC.  
4420 N. Harley Davidson Ave  
Wauwatosa, WI 53225

Brenntag Mid-South Inc.  
1405 Hwy 136 W  
Henderson, KY 42420

Brenntag Northeast, Inc.  
81 West Huller Lane  
Reading, PA 19605

Brenntag Southeast, Inc.  
2000 East Pettigrew Street  
Durham, NC 27703

Brenntag Southwest, Inc.  
610 Fisher Road  
Longview, TX 75604

Brenntag Pacific, Inc.  
10747 Patterson Place  
Santa Fe Springs, CA 90670

### 2. Hazards Identification

#### Emergency Overview

**DANGER!**  
**CORROSIVE!**

Causes severe and irreversible burns to eye and skin. Harmful if inhaled. May cause irritation and inflammation to the respiratory tract. Harmful or fatal if swallowed. Strong Oxidizing Agent! Mix only with water. Never add water to product. Always add the product to large quantities of water. Do not mix with any other chemicals. Contamination with moisture, acids, organic materials and other easily combustible materials such as petroleum, paint products, wood or paper may cause fire or explosion and the liberation of hazardous gases. Do not add this product to any dispensing device containing remnants of any other products. Such use may cause violent reaction leading to fire or explosion. Very toxic to aquatic organisms.

**PRECAUTIONS:** Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Irriting to nose and throat. Do not swallow. Do not eat, drink, or smoke in work area. Wash hands after handling. Remove and wash contaminated clothing before reuse. Keep out of reach of children.

#### Potential Health Effects

**Inhalation:**

If a person breathes in chemical, remove exposed person promptly to fresh air. If breathing has stopped, perform artificial respiration. Oxygen should be provided for a person having difficulty breathing (but only administered by an authorized individual) until the person is able to breathe.

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easily by themselves. Keep the affected person warm and at rest. If symptomatic, get medical attention as soon as possible for treatment.

### Ingestion:

Gently wipe or rinse the inside of the mouth with water. If conscious, give the exposed person sips of water immediately. Never give anything by mouth to an unconscious or convulsing person. Do **NOT** induce vomiting. A physician should be contacted immediately.

### Skin Contact:

Promptly wash the contaminated skin using soap or mild detergent and water. If chemical, or solution containing chemical, soaks through clothing, remove the clothing promptly and wash the skin using soap or mild detergent and water. Medical attention should be given as soon as possible for all burns, regardless of how minor they seem.

### Eye Contact:

Flush eyes with large amounts of water, lifting the upper and lower lids at periodic intervals to insure contact of water with all accessible tissue of the eyes and lids. Medical attention should be given as soon as possible, preferably an eye specialist.

## 3. Composition/Information on Ingredients

CAS#	Chemical Name	Percent by Weight
7778-54-3	Calcium Hypochlorite	70%
10137-74-3	Calcium Chlorate	<3%
471-34-1	Calcium Carbonate	<2%
1305-62-0	Calcium Hydroxide	<2%
7732-18-5	Water	5.5-8.5%

## 4. First Aid Measures

### Inhalation:

If a person breathes in chemical, remove exposed person promptly to fresh air. If breathing has stopped, perform artificial respiration. Oxygen should be provided for a person having difficulty breathing (but only administered by an authorized individual) until the person is able to breath easily by themselves. Keep the affected person warm and at rest. Get medical attention as soon as possible.

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### Ingestion:

Gently wipe or rinse the inside of the mouth with water. If conscious, give the exposed person sips of water immediately. Never give anything by mouth to an unconscious or convulsing person. Do **NOT** induce vomiting. A physician should be contacted immediately.

### Skin Contact:

Promptly wash the contaminated skin using soap or mild detergent and water. If chemical, or solution containing chemical, soaks through clothing, remove the clothing promptly and wash the skin using soap or mild detergent and water. Medical attention should be given as soon as possible for all burns, regardless of how minor they seem.

### Eye Contact:

Flush eyes with large amounts of water, lifting the upper and lower lids at periodic intervals to insure contact of water with all accessible tissue of the eyes and lids. Medical attention should be given as soon as possible, preferably an eye specialist.

## 5. Fire Fighting Measures

Go to Section 9 for Flammable Properties.

### FLASH POINT:

Not Applicable.

### Explosion:

Product decomposes at approximately 338-356°F releasing oxygen gas.

### Fire Extinguishing Media:

Drench with large quantities of water only. Do not use dry chemicals or foam. Product supplies own oxygen, therefore attempts to smother fire with a wet blanket, carbon dioxide, dry chemical extinguisher or other means are not effective.

### Special Considerations:

Extreme temperatures, such as fires, will cause decomposition of product at approximately 338-356°F releasing oxygen gas. Container may rupture. Firefighters should avoid all bodily contact, wear full protective clothing and self-contained breathing apparatus. Emits toxic fumes under fire conditions.

## 6. Accidental Release Measures

Use extreme caution in handling spilled material. Do not mix with any other chemicals. Ventilate area of leak or spill. Wear appropriate personal protective equipment. Contamination with

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moisture, acids, organics or other easily combustible materials such as petroleum, paint products, wood or paper may cause fire or violent decomposition. If fire or decomposition occurs in area of spill, immediately douse with plenty of water. Pick up and place in a suitable container of water. Spilled material that has been dissolved in water should be used immediately in the normal application for which this product is being consumed.

### 7. Handling and Storage

Store in a cool, dry place with adequate ventilation. Keep container closed when not in use. Keep away from heat, sparks, flames, direct sunlight, and other sources of heat, including lighted tobacco products. Use only a clean, dry scoop made of metal or plastic each time product is taken from the container. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause violent reaction leading to fire or explosion. Add this product only to water. Never add water to product. Always add the product to large quantities of water. May cause fire or explosion if mixed with other chemicals. Fire may result if contaminated with acids, organic material and other easily combustible material such as oil, kerosene, gasoline, paint products wood or paper. Do not reuse container. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection. Do not contaminate water, food, or feed by storage or disposal of this product.

### 8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limit (PEL): 5 mg/m<sup>3</sup> (TWA)

ACGIH Threshold Limit Value (TLV): 5 mg/m<sup>3</sup> (TWA)

#### Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, a Manual of Recommended Practices*, most recent edition, for details. Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type may be worn. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

#### Skin Protection:

Impervious Butyl rubber gloves should be worn. Protective, impervious clothing should be worn in presence to prevent contact with skin (coveralls, boots, etc.).

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### Eye Protection:

Splash-proof goggles should be worn when there is danger of splash from solution containing chemical. Protection against splash or mist from solution containing chemical with 8-inch minimum face shield is recommended. Eye protection should be worn in presence of dry chemical, or solution containing chemical, at all times. Maintain eye wash fountain and quick-drench facilities in work area.

## 9. Physical and Chemical Properties

Appearance:	White Granules
Odor:	slight chlorine
Physical State:	Solid
PH of water solutions:	Alkaline
Melting Point:	Decomposes @ 500 °C
Boiling Point:	Decomposes at approximately 338-356 °F
Flash Point:	N/A
Upper Explosive Limit:	N/A
Lower Explosive Limit:	N/A
Vapor Pressure:	No Information Found
Bulk Density:	65-67 lbs/cu.ft.
Specific Gravity:	N/A
Solubility in Water:	217 g/l @ 27 °C

## 10. Stability and Reactivity

**Chemical Stability:** Unstable above 338°F.

**Conditions to Avoid:** Contamination. Excessive heat above 338°F. Moisture, acids, reducing agents, organics, combustible materials, petroleum products, paint products, wood and paper.

**Incompatible Materials:** Contact with strong acids and alkalis, such contact will cause formation of hydrogen fluoride gas.

**Hazardous Decomposition Products:** Acid or ammonia contamination will release toxic gases. Excessive heat will cause decomposition resulting in the release of oxygen and chlorine gas.

## 11. Toxicological Information

**LD50 Oral Rat:** 850 mg/kg

**IMPORTANT:** While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

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**LD50 Acute Inhalation Rat: 3.5 mg/l**  
**LD50 Acute Dermal Rabbit: 1000 mg/kg**

**Acute:** Inhalation of calcium hypochlorite dust and deposition of particles in the respiratory tract can lead to irritation of the tissue and cause a variety of effects. These effects are dependent on concentration and include: upper respiratory tract irritation, nasal congestion, coughing, sore throat, laryngitis and shortness of breath. In operations where there are high concentrations of respirable particulates, pulmonary edema may be produced. If not treated immediately, pulmonary edema can be life threatening. Since this product is in granular or tablet form, particles of respirable size are not generally encountered.

**Calcium hypochlorite is corrosive to the eyes and skin.** Contact of this product dust with the eyes, even for a minute amount for a short duration, can cause severe irritation and even blindness. Contact with the skin may cause severe irritation, burns, or tissue destruction. In studies utilizing rabbits, the skin irritation score was 8/8 and the eye irritation score was 98.5/110. Calcium hypochlorite, if swallowed, causes severe burns to the digestive tract and can be fatal.

**Chronic:** Calcium hypochlorite produced positive responses in in-vitro assays using bacterial systems and chromosomal aberration in Chinese hamster fiberblasts. In a whole animal experiment exposures ranging from 20 to 160 mg/kg produced no compound related chromosomal abnormalities. This chemical produced no carcinogenic response or any adverse effects in animal studies.

## 12. Ecological Information

**ECOTOXICOLOGICAL INFORMATION:** 0.088 MG/L (BLUEGILL) 96-HOUR Ic50. Extreme toxicity.

**ENVIRONMENTAL FATE:** No data at this time.

## 13. Disposal Considerations

Use extreme caution in handling spilled material. Do not mix with any other chemicals. Ventilate area of leak or spill. Wear appropriate personal protective equipment. Contamination with moisture, acids, organics or other easily combustible materials such as petroleum, paint products, wood or paper may cause fire or violent decomposition. If fire or decomposition occurs in area of spill, immediately douse with plenty of water. Pick up and place in a suitable container of water. Spilled material that has been dissolved in water should be used immediately in the normal application for which this product is being consumed. If this is not possible, dissolve material in water and carefully neutralizes dissolved material by adding hydrogen peroxide (one pint of 35% hydrogen peroxide solution per pound of calcium hypochlorite to be neutralized) then dilute the neutralized material with plenty of water and flush to sewer. Unneutralized material can cause environmental damage to receiving water or can interfere with treatment plant operations. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal

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disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

### 14. Transport Information

#### US DOT (ground)

Proper Shipping Name: Calcium Hypochlorite, Hydrated  
Hazard Class: 5.1 (Oxidizer)  
UN/NA: UN2880  
Packing Group: II  
Marine Pollutant: No  
RQ Amount: 10 lbs

#### IMDG (water)

Proper Shipping Name: Calcium Hypochlorite, Hydrated  
Hazard Class: 5.1 (Oxidizer)  
UN/NA: UN2880  
Packing Group: II  
RQ: 10 lbs

### 15. Regulatory Information

SARA 302  
Not Listed

SARA 304  
Not Listed

SARA 313  
Not Listed

CERCLA  
Not Listed

TSCA Inventory  
Yes

California Proposition 65  
Not Listed

### 16. Other Information

This MSDS is provided as an information resource only. It should not be taken as a warranty or representation for which Brenntag assumes legal liability. While Brenntag believes the information contained herein is accurate and compiled from sources believed to be reliable, it is the responsibility of the user to investigate and verify its identity. The buyer assumes all responsibility for using and handling the product in accordance with applicable federal, state, and local regulations.

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90670