



# Material Safety Data Sheet

## Section 1. Product and Company Identification

<b>Product Name</b>	Calcium Hypochlorite	<b>Product Code</b>	CX0235
<b>Manufacturer</b>	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	<b>Effective Date</b>	4/7/2004
		<b>Print Date</b>	5/13/2004

### For More Information Call

856-423-6300 Technical Service  
Monday-Friday: 8:00 AM - 5:00 PM

### In Case of Emergency Call

800-424-9300 CHEMTREC (USA)  
613-996-6666 CANUTEC (Canada)  
24 Hours/Day: 7 Days/Week

**Synonym** Calcium Oxychloride

**Material Uses** Analytical reagent.

**Chemical Family** Inorganic salt.

## Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Calcium Hypochlorite	7778-54-3	100

## Section 3. Hazards Identification

**Physical State and Appearance** Solid.

**Emergency Overview** DANGER!  
OXIDIZER.  
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.  
CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.  
HARMFUL IF INHALED OR SWALLOWED.  
VERY TOXIC TO AQUATIC ORGANISMS.  
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:  
RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.

**Routes of Entry** Inhalation. Ingestion.

### Potential Acute Health Effects

**Eyes** Hazardous in case of eye contact (corrosive). Causes eye burns.

**Skin** Hazardous in case of skin contact (corrosive). Skin contact produces burns.

**Inhalation** Hazardous in case of inhalation (lung corrosive).

**Ingestion** Hazardous in case of ingestion.

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**Potential Chronic Health Effects**

*Carcinogenic Effects* This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information (section 11)

**Medical Conditions  
Aggravated by  
Overexposure:**

Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

### Section 4. First Aid Measures

<b>Eye Contact</b>	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
<b>Ingestion</b>	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

### Section 5. Fire Fighting Measures

<b>Flammability of the Product</b>	May be combustible at high temperature.
<b>Auto-ignition Temperature</b>	Not available.
<b>Flash Points</b>	Not available.
<b>Flammable Limits</b>	Not available.
<b>Products of Combustion</b>	Some metallic oxides.
<b>Fire Hazards in Presence of Various Substances</b>	Not available.
<b>Explosion Hazards in Presence of Various Substances</b>	Risks of explosion of the product in presence of static discharge: No. Risks of explosion of the product in presence of mechanical impact: No.
<b>Fire Fighting Media and Instructions</b>	Do not use water jet. Use flooding quantities of water. Avoid contact with organic materials.
<b>Protective Clothing (Fire)</b>	Be sure to use an approved/certified respirator or equivalent.
<b>Special Remarks on Fire Hazards</b>	Not available.
<b>Special Remarks on Explosion Hazards</b>	Not available.

**Section 6. Accidental Release Measures**

<b>Small Spill and Leak</b>	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
<b>Large Spill and Leak</b>	Stop leak if without risk. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
<b>Spill Kit Information</b>	No specific spill kit required for this product.

**Section 7. Handling and Storage**

<b>Handling</b>	Do not get in eyes, on skin, or on clothing. Do not ingest. Avoid generation of dust.
<b>Storage</b>	Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalies, reducing agents and combustibles.

<b>Engineering Controls</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
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**Personal Protection**

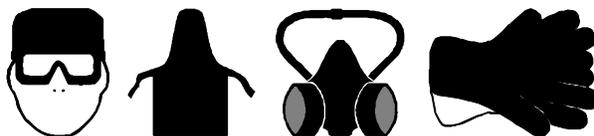
**Eyes** Splash goggles.

**Body** Synthetic apron.

**Respiratory** Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

**Hands** Gloves.

**Feet** Not applicable.

**Protective Clothing (Pictograms)****Personal Protection in Case of a Large Spill**

Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

<b>Product Name</b>	<b>Exposure Limits</b>
Calcium Hypochlorite	Not available.

**Section 9. Physical and Chemical Properties**

<b>Odor</b>	Chlorine.
<b>Color</b>	White.
<b>Physical State and Appearance</b>	Solid.
<b>Molecular Weight</b>	142.99 g/mole
<b>Molecular Formula</b>	C12-O2.Ca
<b>pH</b>	Not available.

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**Boiling/Condensation Point** Not available.

**Melting/Freezing Point** Not available.

**Specific Gravity** 2.35 (Water = 1)

**Vapor Pressure** Not available.

**Vapor Density** Not available.

**Odor Threshold** Not available.

**Evaporation Rate** Not available.

**LogK<sub>ow</sub>** Not available.

**Solubility** Not available.

### Section 10. Stability and Reactivity

**Stability and Reactivity** The product is stable.

**Conditions of Instability** Not available.

**Incompatibility with Various Substances Rem/Incompatibility** Highly reactive with acids.  
Reactive with reducing agents, combustible materials.  
Contact with acids liberates toxic gas.

**Hazardous Decomposition Products** Chlorine.

**Hazardous Polymerization** Will not occur.

### Section 11. Toxicological Information

**RTECS Number:** Calcium Hypochlorite NH3485000

**Toxicity** Acute oral toxicity (LD<sub>50</sub>): 850 mg/kg [Rat].

**Chronic Effects on Humans** Not available.

**Acute Effects on Humans** Hazardous in case of eye contact (corrosive). Causes eye burns. Hazardous in case of skin contact (corrosive). Skin contact produces burns. Hazardous in case of inhalation (lung corrosive). Hazardous in case of ingestion.

**Synergetic Products (Toxicologically)** Not available.

**Irritancy** Draize Test: Not available.

**Sensitization** Not available.

**Carcinogenic Effects** This material is not known to cause cancer in animals or humans.

**Toxicity to Reproductive System** Not available.

**Teratogenic Effects** Not available.

**Mutagenic Effects** Tests on laboratory animals for mutagenic effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS).

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**Section 12. Ecological Information**

**Ecotoxicity** Ecotoxicity in water (LC50): 0.073 mg/l [EC50, Intoxication], 48 hours [Daphnia (Daphnia magna)]. 0.11 mg/l [EC50, Intoxication], 48 hours [Daphnia (Daphnia magna)]. 0.057 mg/l [LC50, Mortality], 96 hours [Fish (Lepomis macrochirus)]. 0.06 mg/l [LC50, Mortality], 96 hours [Fish (Oncorhynchus mykiss)]. 0.062 mg/l [LC50, Mortality], 96 hours [Fish (Oncorhynchus mykiss)]. 0.063 mg/l [LC50, Mortality], 96 hours [Fish (Lepomis macrochirus)].

**BOD5 and COD** Not available.

**Toxicity of the Products of Biodegradation** The products of degradation are less toxic than the product itself.

**Section 13. Disposal Considerations**

**EPA Waste Number** D001

**Treatment** Specified Technology - Contact your local permitted waste disposal site (TSD) for permissible treatment sites. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations..

**Section 14. Transport Information**

**DOT Classification** Proper Shipping Name: CALCIUM HYPOCHLORITE, DRY  
Hazard Class: 5.1  
UN number: UN1748  
Packing Group: II  
RQ: 10 lbs. (4.536 kg)

**TDG Classification** Not available.

**IMO/IMDG Classification** Not available.

**ICAO/IATA Classification** Not available.

**Section 15. Regulatory Information**

**U.S. Federal Regulations** TSCA 8(b) inventory: Calcium Hypochlorite  
SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notification: No products were found.  
SARA 302/304/311/312 hazardous chemicals: Calcium Hypochlorite  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Calcium Hypochlorite: Fire Hazard, reactive, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard  
SARA 313 toxic chemical notification and release reporting: No products were found.  
Clean Water Act (CWA) 307: No products were found.  
Clean Water Act (CWA) 311: Calcium Hypochlorite  
Clean air act (CAA) 112 accidental release prevention: No products were found.  
Clean air act (CAA) 112 regulated flammable substances: No products were found.  
Clean air act (CAA) 112 regulated toxic substances: No products were found.

**WHMIS (Canada)** CLASS C: Oxidizing material.  
Class D-1B: Material causing immediate and serious toxic effects (TOXIC).  
CLASS E: Corrosive solid.

CEPA DSL: Calcium Hypochlorite

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This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

#### International Regulations

**EINECS** Calcium Hypochlorite 231-908-7

**DSCL (EEC)** R22- Harmful if swallowed.  
R34- Causes burns.  
R50- Very toxic to aquatic organisms.

**International Lists** Australia (NICNAS): Calcium Hypochlorite

China: Calcium Hypochlorite

Germany water class: Calcium Hypochlorite

Japan (MITI): Calcium Hypochlorite

Korea (TCCL): Calcium Hypochlorite

Philippines (RA6969): Calcium Hypochlorite

China: Calcium Hypochlorite

#### State Regulations

Pennsylvania RTK: Calcium Hypochlorite: (environmental hazard, generic environmental hazard)

Massachusetts RTK: Calcium Hypochlorite

New Jersey: Calcium Hypochlorite

California prop. 65: No products were found.

### Section 16. Other Information

**National Fire  
Protection  
Association  
(U.S.A.)**



Fire Hazard

Reactivity

Specific Hazard

**Changed Since Last  
Revision**

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#### Notice to Reader

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