

CALCIUM HYPOCHLORITE MSDS

MATERIAL SAFETY DATA SHEET GRANULAR CHLORINE PRODUCT



Chlorinated Lime

Molecular Weight : 142.98

Chemical Formula : Ca (OCl)_2

Product Codes : 1378

Ingredient

CAS No

Percent

Calcium Hypochlorite
70%

7778-54-3

HAZARD IDENTIFICATION

Emergency Overview

Identification Of Substance

Trade Name: A chlon Chlorine

Granular 70% MIN

COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms :

Hypochlorous Acid, Calcium Salt,
Losantin, Calcium Hypochlorite,

Two Ten Chemicals (Pty) Ltd Ratings (Provided for
your convenience)

Health Rating : 2 – Moderate

Flammability Rating : 0 – None

Reactivity Rating : 3 – Severe (Oxidizer)

Contact Rating : 1 – Moderate

Lab Protective Equipment : Goggles, Lab Coat,
Vent Hood, Gloves

Storage Colour Code : Yellow (Reactive)

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Potential Health Effects :

Inhalation :

Corrosive. Extremely destructive to tissues of the mucous membranes and upper respiratory tract.

Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Ingestion :

Corrosive. Swallowing can cause severe burns of the mouth throat and stomach. Can cause sore throat, vomiting, diarrhea.

Skin Contact

Corrosive. Symptoms of redness, pain and severe burn can occur.

Eye Contact :

Corrosive. Contact can cause blurred vision, redness, pain and severe tissue burns.

Chronic Exposure

Repeated exposures to calcium hypochlorite may cause bronchitis to develop with cough and/or shortness of breath.

Aggravation of Pre-existing Conditions :

No information found.

FIRST-AID MEASURES

Inhalation :

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion :

If swallowed, DO NOT INDUCE VOMITING.

Give large quantities of water.

Never give anything by mouth to an unconscious person. Get medical attention immediately.



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Skin Contact :

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact :

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

FIRE FIGHTING MEASURES

Fire :

Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Thermally unstable, at higher temperatures, may undergo accelerated decomposition with release of heat and oxygen.

Explosion :

Sealed containers may rupture when heated.

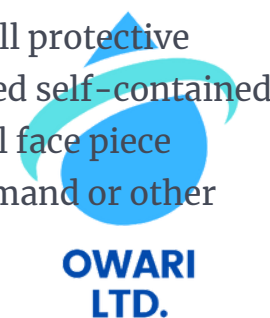
An explosion can occur if either a carbon tetrachloride or a dry ammonium compound fire extinguisher is used to extinguish a fire involving calcium hypochlorite. Sensitive to mechanical impact.

Fire Extinguishing Media :

Use flooding quantities of water as fog or spray. Use water spray to keep fire-exposed containers cool. Avoid direct contact with water; reacts with water releasing chlorine gas. Fight fire from protected location or maximum possible distance. Do not use dry chemical fire extinguishers containing ammonium compounds. Do not use carbon tetrachloride fire extinguishers. Do not allow water runoff to enter sewers or waterways.

Special information :

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operating in the pressure demand or other positive pressure mode.



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ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition.

Keep water away from spilled material. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Spills :

Remove all sources of ignition.

Clean up in manner to minimize contamination with organic material. Do not return material to original container. Place in a fresh container and isolate outside or in a well-ventilated area. Do not seal the container. Flush any residual material with large quantities of water. In the event of a large spill use the emergency telephone number.



HANDLING AND STORAGE

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

EXPOSURE CONTROL / PERSONAL PROTECTION

Airborne Exposure Limits :

None established

Ventilation System :

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. 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.

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Personal Respirators (NIOSH Approved) :

For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

WARNING : Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection :

Wear impervious protective clothing, including boots, proper gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection :

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in the work area.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	White or grayish-white powder
Odour :	Chlorine-like odour
Solubility :	Soluble in water, reacts, releasing chlorine gas
Specific Gravity :	.35 @ 20C
PH :	No information found
% Volatile by volume @ 21C (70F) :	0
Boiling Point :	No information found
Melting Point :	Decomposes above 177C (350F), releasing oxygen
Vapour Density (Air+1) :	6.9
Vapour Pressure (mm Hg) :	Not applicable
Evaporation Rate (BuAC+1) :	No information found



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STABILITY AND REACTIVITY

Stability :

Rapidly decomposes on exposure to air. May decompose violently if exposed to heat or direct sunlight.

Thermally unstable; decomposes at 177C (350F).

Hazardous Decomposition

Products :

Calcium Hypochlorite gives off oxygen, chlorine and chlorine monoxide

Hazardous Polymerization :

Will not occur

Incompatibilities :

Calcium Hypochlorite is a strong oxidizer. Reacts with water and acids giving off chlorine gas.

Forms explosive compounds with ammonia and amines.

Incompatible with organic materials, nitrogen compounds and combustible materials.

Conditions to avoid :

Heat, flame, moisture, dusting, sources of ignition and shock, and incompatibles.

TOXICOLOGICAL INFORMATION

Calcium hypochlorite, LD50 oral rat 850mg/kg. Investigated as a tumorigen and mutagen.

Cancer Lists Ingredient Category	NTP Carcinogen		IARC
	Known	Anticipated	
Calcium Hypochlorite (7778-54-3)	No	No	3

ECOLOGICAL INFORMATION

Environmental Fate :

No information found

Environmental Toxicity :

No information found



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DISPOSAL CONSIDERATION

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility.

Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

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



TRANSPORT INFORMATION

Domestic (Land, D.O.T.)

Proper Shipping Name : CALCIUM
HYPOCHLORITE, DRY

Hazard Class : 5.1

UN/NA : 1748

Packing Group : II

International (Water, I.M.O.)

Proper Shipping Name : CALCIUM
HYPOCHLORITE, DRY

Hazard Class : 5.1

UN/NA : UN1748

Packing Group : II

International (Air, I.C.A.O.)

Proper Shipping Name : CALCIUM
HYPOCHLORITE, DRY

Hazard Class : 5.1

UN/NA : UN2208

Packing Group : III

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REGULATORY INFORMATION

Chemical Inventory Status

Ingredient	TSCA	C	JAPAN	AUSTRALIA
Calcium Hypochlorite	Yes	Yes	Yes	Yes
	CANADA	JAPAN DSL	NDSL	PHIL
	Yes	Yes	No	Yes

Federal, State & International Regulations

RQ	TPQ	List	Chem. Catg.	CERCLA	261.33	TSCA 8(d)
No	No	No	No	10	No	No

Chemical Weapons Convention : No TSCA (12 (b)) : No CDTA ; No
 SARA 311/312 : Acute : Yes Chronic : Yes Fire : Yes Pressure : No
 Reactivity : Yes (Pure/Solid)

OTHER INFORMATION

NFPA Ratings : Health : 3 Flammability : 0 Reactivity : 1 Other : Oxidiser

Label Hazard Warning :

DANGER! STRONG OXIDISER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. CORROSIVE.
 CAUSES BURNS TO ANY AREA OF CONTACT. HARMFUL IF SWALLOWED OR INHALED. WATER
 REACTIVE.

Label Precautions :

Keep from contact with clothing and other combustible materials.
 Store in a tightly closed container.
 Remove and wash contaminated clothing promptly.
 Do not store near combustible materials.
 Do not get in eyes, on skin, or on clothing.
 Do not breathe dust or vapour.
 Keep container closed.
 Use only with adequate ventilation.
 Wash thoroughly after handling.
 Do not contact with water.



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If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not

breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases get medical attention immediately.

Product Use :

Laboratory Reagent

Revision Information :

MSDS on Revision 00/2000

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