



Company Details:

Waterwell Projects (PTY) LTD
Reg No. 2001/018862/07

Waterwell Projects (PTY) LTD

Unit 4 Megazone Park
Hertford Junction R512
Lanseria 1748

Tel: 011 300 9917/8 or 073 077 0973
Fax: 086 605 9360

Poison Centre: +27 21 689 5227

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

a) Identification of the substance or preparation :

- 1.1 Commercial name : Waterwell Granular Chlorine 458(packaged 4kg, 40kg or 45kg)
1.2 Chemical name : CALCIUM HYPOCHLORITE.
1.3. Synonyms : Hypochlorous Acid, Calcium Salt; Losantin;
Calcium Hypochlorite: Chlorinated Lime
1.4. Chemical formula : $\text{Ca}(\text{OCl})_2$
1.5. UN No: 1748
1.6. CAS No : 7778-54-3
1.6. EEC No : 231-908-7

b) Information of Distributor :

Waterwell Projects (PTY) LTD
Unit 4 Megazone Park
Hertford Junction R512
Lanseria 1748
Tel: 011 300 9917/8 or 073 077 0973
Fax: 086 605 9360

Alternate suppliers:

CJP Chemicals (Pty) Ltd P. O. Box 1353 Cresta 2118 32 Tiger Moth ave Aeroton 2190 Tel: 011 494 6700 Fax: 011 494-6701	or:	Crossmill Chemicals CC P O Box 1272 Lonehill 2062 34 Renico Crescent Lea Glen, Roodepoort, Gauteng 2195 Tel: 011 472 4986 Fax: 011 472 0730
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2. COMPOSITION / INFORMATION ON INGREDIENTS

Dangerous ingredient	% available chlorine	Hazard classification
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Calcium Hypochlorite	65-70%	Yes
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3. DESCRIPTION OF HAZARDS

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

Inhalation:

Corrosive. Extremely destructive to tissues of the mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, and 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.

4. FIRST AID MEASURES

4.1 Contact with the skin:

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.

4.2 Contact with the eyes:

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

4.3 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.

4.4 Inhalation:

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

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.

5. FIRE-FIGHTING MEASURES

5.1 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.

5.2 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.

5.3 Special Information:

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

6. 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 contact a hazmat team.

7. HANDLING AND STORAGE

7.1 Handling:

Avoid inhalation of dust and fumes. Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Remove contaminated clothing and wash before reuse.

7.2 Storage:

Keep product tightly sealed in original containers. Store in a cool, dry, well-ventilated area. Store away from combustible or flammable products. Keep product packaging clean and free of all contamination, including e.g. other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc.

7.3 Shelf Life Limitations:

Do not store product where the average daily temperature exceeds 35°C / 95°F. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products. Prolonged storage at elevated temperatures will significantly shorten the shelf life.

7.4 Incompatible Materials for Storage:

Do not allow product to come in contact with other materials, including e.g. other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc. A chemical reaction with such substances can cause a fire of great intensity.

7.5 Do Not Store at Temperatures Above:

Average daily temperature of 35°C / 95°F. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Airborne Exposure Limits:

None established

8.2 Ventilation:

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.

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.

8.3 Skin Protection:

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

8.4 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

White or grey-white granules

Odor

Chlorine-like odour

Solubility

Soluble in water; reacts, releasing chlorine gas

Specific Gravity

2.35 @ 20°C

pH	10.4-10.8 @25°C (1% solution)
% Volatiles by volume	0: @ 21°C
Boiling Point	No information found
Melting Point	Decomposes above 177°C, releasing oxygen
Vapor Density (Air+1)	6.9
Vapor Pressure (mm Hg)	Not applicable

10. STABILITY AND REACTIVITY

10.1 Stability and Reactivity Summary:

Product is not sensitive to mechanical shock or impact. Product is not sensitive to electrical static discharge. Product will not undergo hazardous polymerization. Product is a Class 5.1 oxidizer which can cause a severe increase in fire intensity. If subjected to excessive temperatures, the product may undergo rapid decomposition, evolution of chlorine gas, and heat sufficient to ignite combustible substances. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gasses and spatter. Use copious amounts of water for fires involving this product.

10.2 Conditions to Avoid:

Do not store next to heat source, in direct sunlight, or elevated storage temperature. Do not store where the daily average temperature exceeds 35°C. Prevent ingress of humidity and moisture into container or package. Always close the lid.

10.3 Chemical Incompatibility:

This product is chemically reactive with many substances. Including e.g., other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive, flammable or combustible materials. Do not allow product to contact any foreign matter, including other water treatment products. Contamination or improper use may cause a fire of great intensity, explosion or the release of toxic gases. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gases and spatter.

10.4 Hazardous Decomposition Products:

Chlorine

10.5 Decomposition Temperature:

170 – 180 DEG°C

11. TOXICOLOGICAL INFORMATION

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

Cancer Lists

NTP Carcinogen

Ingredient

Known	Anticipated	IARC Category
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Calcium Hypochlorite (7778-54-3)

No	No	3
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12. ECOLOGICAL INFORMATION

BIODEGRADABILITY: Data not available

PRECAUTIONS: No information found

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters.

13. DISPOSAL CONSIDERATIONS

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. Care must be taken to prevent environmental contamination for

the use of this material. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant laws and regulations regarding treatment, storage and disposal for hazardous and non- hazardous wastes.

14. TRANSPORT INFORMATION

14.1 Domestic (Land, D.O.T)

Proper Shipping Name: CALCIUM HYPOCHLORITE, DRY
Hazard Class: 5.1
UN/NA: 1748
Packing Group: II

14.2 International (Water, I.M.O)

Proper Shipping Name: CALCIUM HYPOCHLORITE, DRY
Hazard Class: 5.1
UN/NA: UN1748
Packing Group: II

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

Proper Shipping Name: CALCIUM HYPOCHLORITE, DRY
Hazard Class: 5.1
UN/NA: UN1748
Packing Group: II

Not recommended for shipment by air

Not regulated by DOT and TDG if shipped or transported in packaging less than 400KG by road and/or rail.

15. REGULATORY INFORMATION

OSHA Hazards This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

SARA 311/312 Hazards Acute Health Hazard

16. ANY OTHER RELEVANT INFORMATION

N/A. = none applicable

The information herein is given in good faith and to the best of our knowledge at the current date. The accomplishment of the instructions herein does not exempt the user from following the legal and administrative regulations relative to product, environmental safety and hygiene, which are user's own responsibility. In case of mixture with other substances, ensure that other risks are not generated.

Date of Revision: **21 August 2014 (general revision)**