

## SAFETY DATA SHEET – CALCIUM HYPOCHLORITE POWDER

Issue Date: 20.1.2017

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Version: One

### 1. IDENTIFICATION

<b>Product Name</b>	<b>CALCIUM HYPOCHLORITE POWDER (UN2880)</b>
<b>Other Names</b>	Calcium Hypochlorite; Calcium Oxychloride; Calcium Salt; Chlorinated Lime; HYPOCHLOROUS ACID, CALCIUM SALT, MAXI CHLOR
<b>Uses</b>	Disinfectant for use in SWIMMING POOLS.
<b>Chemical Family</b>	Salt of hypochlorous acid
<b>Chemical Formula</b>	Ca(OCl) <sub>2</sub>
<b>Chemical Name</b>	Calcium Hypochlorite,
<b>Product</b>	Hydrated Ingredients (by
<b>Description</b>	weight %): Product contains up to 65% min.- 70% min. of Ca(OCl) <sub>2</sub> , the remainder includes sodium chloride, water, calcium chloride, calcium carbonate, calcium hydroxide and calcium chlorate etc. water content should not be too high or too low in an effort to avoid product to react with organic contaminates violently. The presence of magnesium oxide in lime used to prepare calcium hypochlorite may lead to the formation of magnesium hypochlorite, which is dangerously reactive. Impurities such as rust (iron oxide) or other metal oxides can catalyze decomposition of the material and must be kept at very low levels.

#### Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Wobelea Pty Ltd	18 Embrey Court, Pakenham Victoria 3810	61 + (3) 5940 1077
Wobelea Pty Ltd	After hours 61 + (3)5997 1690 OR Mobile 0427 367 561	

#### Emergency Contact Details

*For emergencies only; DO NOT contact these companies for general product advice.*

Organisation	Location	Telephone
Poisons Information Centre	Australia	131126

### 2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) 6

#### Globally Harmonised System

**Hazard Classification** Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

**Hazard Categories**

Oxidising Solids - Category 2  
 Acute Toxicity (Oral) - Category 4  
 Skin Corrosion/Irritation - Category 1B  
 Acute Hazard To The Aquatic Environment - Category 1

**Pictograms****Signal Word**

Danger

**Hazard Statements**

**H272** May intensify fire; oxidizer.  
**H302** Harmful if swallowed.  
**H314** Causes severe skin burns and eye damage.  
**H400** Very toxic to aquatic life.

**Precautionary Statements**

Prevention

**P270** Do not eat, drink or smoke when using this product.  
**P210** Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
**P220** Keep/store away from combustible materials.  
**P221** Take any precaution to avoid mixing with combustibles.  
**P280** Wear protective gloves/protective clothing/eye protection/face protection.  
**P264** Wash hands and contaminated body thoroughly after handling.  
**P260** Do not breathe fume/gas/mist/vapours/spray.

Response

**P301 + P312** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
**P330** Rinse mouth.  
**P301 + P330 + P331** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
**P303 + P361 + P353** IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
**P363** Wash contaminated clothing before reuse.  
**P304 + P340** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**P310** Immediately call a POISON CENTER or doctor/physician.  
**P305 + P351 + P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P370 + P378** In case of fire: Use sand or water for extinction.  
**P321** Specific treatment (see First Aid Measures on Safety Data Sheet).

Storage

**P405** Store locked up.

Disposal

**P501** Dispose of contents/container in accordance with local / regional / national / international regulations.

**National Transport Commission (Australia)** Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification**

Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

**HSNO Classifications**

Physical Hazards

**5.1.1B**

Oxidising substances that are liquids or solids: medium hazard

Health Hazards

**6.1D**

Substances that are acutely toxic - Harmful

	<b>8.1A</b>	Substances that are corrosive to metals
	<b>8.2C</b>	Substances that are corrosive to dermal tissue UN PGIII
	<b>8.3A</b>	Substances that are corrosive to ocular tissue
Environmental Hazards	<b>9.1A</b>	Substances that are very ecotoxic in the aquatic environment
	<b>9.2A</b>	Substances that are very ecotoxic in the soil environment
	<b>9.3C</b>	Substances that are harmful to terrestrial vertebrates

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### *Ingredients*

Chemical Entity	Formula	CAS Number	Proportion
Calcium Hypochlorite	No Data Available	7778-54-3	>65.0 %
Note: Available Chlorine	No Data Available		>=65.0 %
Sodium Chloride	No Data Available	7647-14-5	<25.0 %
Water	No Data Available	7732-18-5	<10.0 %
Calcium Dichloride	No Data Available	10043-52-4	<6.0 %
Calcium Dihydroxide	No Data Available	1305-62-0	<6.0 %
	No Data Available	471-34-1	<4.0 %

### 4. FIRST AID MEASURES

#### *Description of necessary measures according to routes of exposure*

<b>Swallowed</b>	Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Do NOT induce vomiting. Have victim drink 240 to 300ml (8 to 10 oz.) of water to dilute material in stomach. If vomiting occurs naturally, rinse mouth and repeat administration of water. Obtain medical attention immediately.
<b>Eye</b>	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20-30 minutes, by the clock, holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. Take care not to rinse contaminated water into the non-affected eye or on to face. If irritation persists, repeat flushing. Quickly transport victim to an emergency care facility.
<b>Skin</b>	Avoid direct contact with this material. Wear impervious protective gloves if necessary. Once contacted, as quickly as possible to flush contaminated area with lukewarm, gently running water for at least 20-30 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Discard contaminated leather goods and transport victim to an emergency care facility immediately.
<b>Inhaled</b>	Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth respiration. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bay and a mask.
<b>Advice to Doctor</b>	Treat symptomatically based on individual reactions of patient and judgement of doctor. Effects may be delayed. May cause corneal burns. Comments: Provide general supportive measures (comfort, warmth, rest). Consult a physician and/or the nearest Poison Control Centre for all exposure except minor instance of inhalation or skin contact.
<b>Medical Conditions Aggravated by Exposure</b>	No information available on medical conditions aggravated by exposure to this product. Chronic Exposure: Repeated exposures to calcium hypochlorite may cause bronchitis to develop with cough and/or shortness of breath.

### 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	If safe to do so, move undamaged containers from fire area. Do NOT move cargo if cargo has been exposed to heat. Dam fire control water for later disposal. Avoid generating dust.
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<b>Flammability Conditions</b>	Non-combustible solid. Strong oxidiser and its heat of reaction with reducing agents, contaminants or combustibles may cause ignition. Explosions involving calcium hypochlorite have occurred. Product will cause a severe increase in the burning rate of combustible materials with which it comes into contact or that will undergo vigorous self-sustained decomposition due to contamination or exposure to heat.
<b>Extinguishing Media</b>	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.
<b>Fire and Explosion Hazard</b>	Not combustible (does not burn). However, calcium hypochlorite is a strong oxidizing agent and is a serious fire and explosion risk. Containers may explode when heated. 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.
<b>Hazardous Products of Combustion</b>	Powerful oxidizing solid. Will accelerate burning when involved in a fire. This strong oxidiser may cause a fire as it contacts with combustible materials. Containers may explode when heated. Incompatible with flammable, organic and combustible materials, ammonia, primary amines, aromatic amines, and urea acids, ammonium chloride, different types of chlorinating chemicals, ethanol or methanol, hydroxy compounds, acetylene, acetic acid and potassium cyanide, reducing agents, metal oxides, charcoal + heat, metals, organic sulfur compounds, sulfur (damp), turpentine and all sources of ignition. When involved in a fire, this product may generate irritating and highly toxic gases of hydrogen chloride gas, hydrochloric acid, calcium oxides, calcium chlorate, calcium hydroxide, calcium carbonate, and chlorine, oxygen gas, and di chlorine monoxide above 158°C.
<b>Special Fire Fighting Instructions</b>	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire-fighting water to reach waterways, drains or sewers. Store fire-fighting water for treatment.
<b>Personal Protective Equipment</b>	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	1W

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Avoid accidents, clean up spills immediately, observing precautions in the protective Equipment section. 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. Avoid generating dusty conditions. Remove all sources of ignition. Isolate the danger area. Use clean, non-sparking tools and equipment. Increase ventilation.
<b>Clean Up Procedures</b>	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to suitable, labelled, corrosion-resistant containers and dispose of promptly as hazardous waste. Do not get water inside containers. Do not use combustible materials such as paper towels to clean up spill.
<b>Containment</b>	Stop leak if safe to do so.
<b>Environmental Precautionary Measures</b>	Do not allow product to reach drains, sewers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.
<b>Evacuation Criteria</b>	Evacuate all unnecessary personnel.
<b>Personal Precautionary Measures</b>	Personnel involved in the clean-up should wear full protective clothing as listed in section 8.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Use only in a well ventilated area. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Label containers and keep containers tightly closed after its use. Avoid contact with heat, sparks and flame. Avoid contact with clothing and other combustible materials. Do not ingest or inhale. Discard contaminated shoes. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Protect against physical damage and moisture. Isolate from any source of heat or ignition. 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.
<b>Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials such as flammable, organic and combustible materials, ammonia, primary amines, aromatic amines, and urea acids, ammonium chloride, different types of chlorinating chemicals, ethanol or methanol, hydroxy compounds, acetylene,

acetic acid and potassium cyanide, reducing agents, metal oxides, charcoal + heat, metals, organic sulfur, compounds, sulfur (damp), turpentine and all sources of ignition. Protect from direct sunlight, moisture, food and feedstuffs. Avoid storage in wood floors. Store and transport in an upright container. The bulk material may ignite or explode in storage. Traces of water may initiate the reaction. Store in an area without drain or sewer access. This product has a UN classification of 2880 and a Dangerous Goods Class 8 (corrosive) according to The Australian Code for the Transport of Dangerous Goods by Road and Rail.

**Container**

Packaging must comply with requirements of Hazardous Substances (Packaging) Regulations. Store in original packaging as approved by manufacturer. SUITABLE: A plastic or fibre board drum using a strong polyethylene chloride inner package.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**General**

No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m3 (for inspirable dust) and 3mg/m3 (for respirable dust).

**Exposure Limits**

No Data Available

**Biological Limits**

No information available on biological limits for this product.

**Engineering Measures**

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. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentration low.

**Personal Protection Equipment**

RESPIRATOR: 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. A respiratory protection program must be followed whenever workplace conditions warrant a respirator's use. (AS1715/1716).

EYES: Wear appropriate protective eyeglasses, chemical safety goggles, chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area (AS1336/1337).

HANDS: Wear appropriate protective gloves to prevent skin exposure (AS2161).

CLOTHING: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact and safety footwear (AS3765/2210).

**Work Hygienic Practices**

No Data Available

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State**

Solid

**Appearance**

Powder or Crystalline Granule

**Odour**

Strong Chlorine Odour

**Colour**

White to Gray

**pH**

10.8 10% Solution

**Vapour Pressure**

No Data Available

**Relative Vapour Density**

6.9 Air = 1

**Boiling Point**

No Data Available

**Melting Point**

Decomposes at temperatures above 100°C

**Freezing Point**

No Data Available

**Solubility**

21g/100mL 25°C

**Specific Gravity**

2.00 Water = 1

**Flash Point**

No Data Available

**Auto Ignition Temp**

No Data Available

**Evaporation Rate**

No Data Available

**Bulk Density**

No Data Available

**Corrosion Rate**

No Data Available

**Decomposition Temperature**

175°C

**Density**

No Data Available

**Specific Heat**

No Data Available

**Molecular Weight**

142.9848 g/mol

**Net Propellant Weight**

No Data Available

**Octanol Water Coefficient**

Log P(oct)-2.46

**Particle Size**

No Data Available

**Partition Coefficient**

No Data Available

**Saturated Vapour Concentration**

No Data Available

<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	0% Vol (21°C)
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	Decomposition Temperature: slowly decomposed less than 100 deg C; when above 140 deg C, around 12 minutes of heating up, violent decomposition and combustion occur; SADT (Self Accelerated Decomposition Temperature): 88 C; Additional Information Odour Threshold : 1-3ppm (Value for chlorine) Refractive Index : 1.545 (alpha), 1.69 (beta) Bulk Density : 1.0g/cm3 (loose granules) Moisture content : 5.5-10% Molecular Weight : 142.98 Solubility : Insoluble in ethanol.
<b>Potential for Dust Explosion</b>	No Data Available
<b>Fast or Intensely Burning Characteristics</b>	No Data Available
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No Data Available
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No Data Available
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	No Data Available
<b>Reactions That Release Gases or Vapours</b>	No Data Available
<b>Release of Invisible Flammable Vapours and Gases</b>	No Data Available

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Hazardous Reactions Hazardous Polymerisation will not occur, however this product is a highly reactive oxidising chlorine compound. May cause fire or explosion. Readily ignites with flammable and combustible materials, in contact with anhydrous (dry) calcium hypochlorite. Reacts with ammonia, primary amines, aromatic amines, and urea to form explosive nitrogen trichloride. May explode upon contact with ethanol or methanol, due to the formation of the alkyl hypo- chlorites. Contact with hydroxy compounds causes ignition and may be explosive. Contact of acetylene may lead to formation of explosive chloroacetylenes. Reaction with acetic acid and potassium cyanide may be explosive. Reaction with reducing agents causes a violent reaction. Reaction with metal oxides can cause a violent oxygen-evolving decomposition of hypochlorites. A confined intimate mixture of calcium hypochlorite + finely divided charcoal exploded on heating. Metals catalyze the decomposition. Reaction with organic sulfur compounds may cause a flash fire/explosion. A mixture of damp sulfur and 'solid swimming pool chlorine' caused a violent exothermic reaction. May explode with turpentine.
<b>Chemical Stability</b>	Thermically stable when stored and used as directed. May decompose violently if exposed to heat or direct sunlight. All hypochlorite solutions are unstable and slowly decompose on contact with air, especially if acidified, or contaminated. Decomposition may lead to spontaneous ignition through self-heating.
<b>Conditions to Avoid</b>	Avoid excessive heat, elevated temperatures, sunlight, flame, sources of ignition and shock, dust generation, moisture/high humidity, contamination with combustible materials, acidic conditions, the presence of metals and other impurities.
<b>Materials to Avoid</b>	Incompatible with flammable, organic and combustible materials, ammonia, primary amines, aromatic amines, and urea acids, ammonium chloride, different types of chlorinating chemicals, ethanol or methanol, hydroxy compounds, acetylene, acetic acid and potassium cyanide, reducing agents, metal oxides, charcoal + heat, metals, organic sulfur, compounds, sulfur (damp), turpentine and all sources of ignition.
<b>Hazardous Decomposition Products</b>	In a fire, this product may generate irritating and highly toxic gases of hydrogen chloride gas, hydrochloric acid, calcium oxides, calcium chlorate, calcium hydroxide, calcium carbonate, and chlorine, oxygen gas, and dichlorine monoxide above 177°C. In contact with incompatible materials, the formation of extremely hazardous gases such as explosively unstable N-mono of Di-Chloramines, corrosive chlorine gas, explosive nitrogen trichloride, alkyl

hypochlorites, and explosive chloroacetylenes.

#### Hazardous Polymerisation

Hazardous Polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	Oral LD50 Rat : 850mg/Kg Dermal LD50 Rabbit : >2000mg/Kg (40% water solution) Carcinogenicity : Hypochlorite salts are evaluated in the IARC monographs as Group 3: Not Classifiable as to carcinogenicity to Humans. Mutagenicity : Calcium Hypochlorite was mutagenic in bacteria and cultured mammalian cells. Mutation in microorganisms, Bacteria - Salmonella typhimurium: 1mg/plate Cytogenetic analysis, hamster fibroblast: 4mg/L Eye Irritation Test: Rabbit, dosage: equivalent to 0.1 mg/volume-70mg sample: Results: Corrosive injury. Rabbit, dosage: 5% solution/30 seconds followed by rinsing with water. Results: Superficial injury. Within one day injury had healed almost completely. Skin Irritation : 0.5mg moistened with water/24hrs: Corrosive injury.
<b>Eye/Irritant</b>	Solid and solutions are corrosive, and can cause permanent eye damage, including blindness. Dust may cause irritation of the inner eyelids and injury to the cornea (ulcers). Solutions release corrosive chlorine gas at normal temperatures. The amount of chlorine gas released depends on the concentration of the solution, pH, temperature, ionic strength, exposure to light and the presence of metals and other impurities. Airborne chlorine can produce severe eye irritation at concentrations of 1ppm and above. Prolonged or repeated eye contact may cause conjunctivitis. Effects may be delayed.
<b>Ingestion</b>	Harmful if swallowed. Corrosive. Calcium hypochlorite can react with organic material and stomach acids to release chlorine gas, which can cause vomiting, difficulty breathing and chemical injury to the respiratory tract and lungs. Ingestion of calcium hypochlorite solid or solutions can cause severe burns to the mouth, throat and stomach, sore throat, swelling of the throat, severe and permanent damage and perforation of the digestive tract and stomach with immediate pain, gastrointestinal symptoms, nausea, vomiting, diarrhoea, abdominal pain, convulsions, delirium, coma, respiratory collapse, and possible death. As little as 1 ounce may be lethal. Concentrations lower than 15% available chlorine can also be lethal.
<b>Inhalation</b>	May be harmful if inhaled. Dust may cause severe irritation and injury to the nasal passages including tissue death (necrosis) and injury to the throat (laryngeal oedema) and upper respiratory tract. Solid calcium hypochlorite decomposes and releases corrosive chlorine gas. Depending on the concentration, chlorine gas can cause nose throat and respiratory tract irritation and or severe lung injury and death. Mists formed from solutions may be moderately to severely irritating. Symptoms of exposure include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may be fatal as a result of spasm inflammation and oedema of the larynx and bronchi, chemical pneumonitis and pulmonary oedema.
<b>Skin/Irritant</b>	Solutions are corrosive and can cause burns, blisters, and permanent scarring. Dusts will form concentrated solutions on wet or sweaty hands. The irritation hazard increases with increasing concentration of the solution and duration of contact. May be harmful if absorbed through the skin. With severe exposures, death could result. Prolonged or repeated skin contact may cause dry, red, itchy, cracked skin (dermatitis).
<b>Carcinogen Category</b>	No Data Available

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Very toxic to aquatic organisms.
<b>Persistence/Degradability</b>	No information available.
<b>Mobility</b>	Soluble in water: 21g/100mL (25°C)
<b>Environmental Fate</b>	Do NOT allow product to reach waterways, drains, or sewers.
<b>Bioaccumulation Potential</b>	No information available on bioaccumulation for this product.
<b>Environmental Impact</b>	No Data Available

## 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
<b>Special Precautions for Land Fill</b>	Contact a specialist disposal company or the local waste regulator for advice. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. Untreated waste calcium hypochlorite must never be discharged directly into sewers or surface water. Following decontamination, disposal of residue by secure landfill may be acceptable.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG

<b>Proper Shipping Name</b>	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE with not less than 5.5% but not more than 16% water
<b>Class</b>	5.1 Oxidising Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	31 Oxidizing Substances
<b>UN Number</b>	2880
<b>Hazchem</b>	1W
<b>Pack Group</b>	II
<b>Special Provision</b>	No Data Available

### Land Transport (Malaysia)

ADR Code

<b>Proper Shipping Name</b>	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE with not less than 5.5% but not more than 16% water
<b>Class</b>	5.1 Oxidising Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	31 Oxidizing Substances
<b>UN Number</b>	2880
<b>Hazchem</b>	1W
<b>Pack Group</b>	II
<b>Special Provision</b>	No Data Available

### Land Transport (New Zealand)

NZS5433

<b>Proper Shipping Name</b>	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE with not less than 5.5% but not more than 16% water
<b>Class</b>	5.1 Oxidising Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	31 Oxidizing Substances
<b>UN Number</b>	2880
<b>Hazchem</b>	1W
<b>Pack Group</b>	II
<b>Special Provision</b>	No Data Available

### Land Transport (United States of America)

US DOT

<b>Proper Shipping Name</b>	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE with not less than 5.5% but not more than 16% water
<b>Class</b>	5.1 Oxidising Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>ERG</b>	140 Oxidizers
<b>UN Number</b>	2880
<b>Hazchem</b>	1W



**Pack Group** II  
**Special Provision** No Data Available

**Sea Transport**  
IMDG

**Proper Shipping Name** CALCIUM HYPOCHLORITE, HYDRATED MIXTURE with not less than 5.5% but not more than 16% water  
**Class** 5.1 Oxidising Substances  
**Subsidiary Risk(s)** No Data Available  
**UN Number** 2880  
**Hazchem** 1W  
**Pack Group** II  
**Special Provision** No Data Available  
**EMS** FH,SQ  
**Marine Pollutant** Yes

**Air Transport**  
IATA

**Proper Shipping Name** CALCIUM HYPOCHLORITE, HYDRATED MIXTURE with not less than 5.5% but not more than 16% water  
**Class** 5.1 Oxidising Substances  
**Subsidiary Risk(s)** No Data Available  
**UN Number** 2880  
**Hazchem** 1W  
**Pack Group** II  
**Special Provision** No Data Available

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification** Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**15. REGULATORY INFORMATION**

**General Information** No Data Available  
**Poisons Schedule (Aust)** 6

**Environmental Protection Authority (New Zealand)**  
Hazardous Substances and New Organisms Amendment Act 2015

**Approval Code** HSR006978

**National/Regional Inventories**

**Australia (AICS)** Listed  
**Canada (DSL)** Not Determined  
**Canada (NDSL)** Not Determined

China (IECSC)	Not Determined
Europe (EINECS)	231-908-7
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

APVMA APPROVAL NUMBER 49991

## 16. OTHER INFORMATION

### Key/Legend

< Less Than  
 > Greater Than  
**AICS** Australian Inventory of Chemical Substances  
**atm** Atmosphere  
**CAS** Chemical Abstracts Service (Registry Number)  
**cm<sup>2</sup>** Square Centimetres  
**CO<sub>2</sub>** Carbon Dioxide  
**COD** Chemical Oxygen Demand  
**deg C (°C)** Degrees Celcius  
**EPA (New Zealand)** Environmental Protection Authority of New Zealand  
**deg F (°F)** Degrees Farenheit  
**g** Grams  
**g/cm<sup>3</sup>** Grams per Cubic Centimetre  
**g/l** Grams per Litre  
**HSNO** Hazardous Substance and New Organism  
**IDLH** Immediately Dangerous to Life and Health  
**immiscible** Liquids are in soluble in each other.  
**inHg** Inch of Mercury  
**inH<sub>2</sub>O** Inch of Water  
**K** Kelvin

APVMA – Australian Pesticide Veterinary Medicine Authority

**kg** Kilogram  
**kg/m<sup>3</sup>** Kilograms per Cubic Metre  
**lb** Pound  
**LC50** LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. **LD50** LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.  
**ltr** or **L** Litre  
**m<sup>3</sup>** Cubic Metre  
**mbar** Millibar  
**mg** Milligram  
**mg/24H** Milligrams per 24 Hours  
**mg/kg** Milligrams per Kilogram  
**mg/m<sup>3</sup>** Milligrams per Cubic Metre  
**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.  
**mm** Millimetre  
**mmH<sub>2</sub>O** Millimetres of Water  
**mPa.s** Millipascals per Second  
**N/A** Not Applicable  
**NIOSH** National Institute for Occupational Safety and Health  
**NOHSC** National Occupational Health and Safety Commission  
**OECD** Organisation for Economic Co-operation and Development  
**Oz** Ounce  
**PEL** Permissible Exposure Limit  
**Pa** Pascal  
**ppb** Parts per Billion  
**ppm** Parts per Million  
**ppm/2h** Parts per Million per 2 Hours  
**ppm/6h** Parts per Million per 6 Hours  
**psi** Pounds per Square Inch  
**R** Rankine  
**RCP** Reciprocal Calculation Procedure  
**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tne** Tonne  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight

**Disclaimer:**

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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END OF SAFETY DATA SHEET \*\*\*\*\*