

SECTION 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier

Product Name ProGuard Calcium Hypochlorite Tablets

Product Code A-0842

Other means of identification

UN Number 2880

Recommended use of the chemical and restrictions on use

Recommended Use Swimming pool chemicals

Uses advised against No information available

Details of manufacturer or importer

Supplier

BIOLAB AUSTRALIA PTY LTD
1 Susan Street
Hindmarsh SA 5007
AUSTRALIA
PHONE: (AU) 1800 635 743

For further information, please contact

Contact Point Customer Service: 1800 635 743 (AU)

Emergency telephone number

Emergency telephone number In an Emergency: Dial 000 (AU)
For SPECIALIST advice in an EMERGENCY ONLY phone CHEMCALL - FREE CALL ALL HOURS: AU 1800 127 406

SECTION 2: HAZARD(S) IDENTIFICATION

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonised System (GHS)

GHS Classification

Oxidising solids	Category 2
Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 5
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

Label elements



Signal word

DANGER

Hazard statements

H272 - May intensify fire; oxidiser

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

Contact with combustible material may cause fire

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapours/spray

Wear protective gloves/protective clothing/eye protection/face protection

Do not mix with other chemicals

Precautionary Statements - Response

Immediately call a POISONS INFORMATION CENTRE or doctor

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISONS INFORMATION CENTRE or doctor

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before re-use

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a POISONS INFORMATION CENTRE or doctor

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Rinse mouth

Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Store in a dry place. Store in a closed container

Store in a well-ventilated place. Keep cool

Keep out of reach of children

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

No information available

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS, IN ACCORDANCE WITH SCHEDULE 8

Substance

Chemical Name	CAS No	Weight-%
calcium hypochlorite	7778-54-3	>65

Non-hazardous ingredients

Proprietary

Balance

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice	Immediate medical attention is required.
Inhalation	Remove to fresh air. Call a doctor or poisons information centre immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Seek immediate medical attention/advice.
Skin contact	Immediately flush with water for at least 20-30 minutes. Do NOT interrupt flushing. Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Discard contaminated leather goods.
Eye contact	Immediately flush eyes with water for at least 20-30 minutes. Keep eye wide open while rinsing. Do NOT interrupt flushing. Take care not to rinse contaminated water into the non-affected eye or onto the face. Do not rub affected area. Immediate medical attention is required.
Ingestion	Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a doctor or poisons information centre immediately.
Self-protection of the first aider	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to doctors Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal oedema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Suitable Extinguishing Media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Small Fire	Use flooding quantities of water. Do NOT use dry chemicals, carbon dioxide or foam. If safe to do so, move undamaged containers from fire area. Do NOT move cargo if cargo has been exposed to heat.
Large Fire	Flood area with water from protected position. Cool containers with flooding quantities of water until well after fire is out. If possible, withdraw from area and let fire burn. Avoid getting water inside containers: a violent reaction may occur. Dam fire control water for safe disposal.

Unsuitable extinguishing media

No information available

Specific hazards arising from the chemical

Non combustible solid. Strong oxidizer 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. The product causes burns of eyes, skin and mucous membranes Thermal decomposition can lead to release of irritating and toxic gases and vapours In the event of fire and/or explosion do not breathe fumes

Hazardous combustion products Powerful oxidizing solid. Will accelerate burning when involved in a fire. The strong oxidizer 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, hydroxyl compounds, acetylene, acetic acid and potassium cyanide, reducing agents, metal oxides, charcoal plus 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 dichlorine monoxide above 177°C.

Special protective actions for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material. Clean contaminated surface thoroughly. Dam far ahead of liquid spill for later disposal. Take up mechanically, placing in appropriate containers for disposal. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

Precautions to prevent secondary hazards**Prevention of secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections

No information available.

SECTION 7: HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED**Precautions for safe handling**

Advice on safe handling

Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before re-use. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers.

Incompatible materials

Incompatible with strong acids and bases. Incompatible with oxidising agents. 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, hydroxyl compounds, acetylene, acetic acid and potassium cyanide, reducing agents, metal oxides, charcoal plus heat, metals, organic sulfur compounds, sulfur (damp), turpentine and all sources of ignition.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**Control parameters****Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls**Engineering Controls**

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tight sealing safety goggles. Face protection shield.

Skin and body protection

Gloves made of plastic or rubber. Rubber boots. Suitable protective clothing. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate.

Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	Solid	Odour	Strong Chlorine
Appearance	Powder or crystalline granule.	Odour threshold	No information available
Colour	white to grey		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	10.8	
Melting point / freezing point		No information available
Boiling point/boiling range		No information available
Flash point		No information available
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability Limit in Air		
Upper flammability limit:		
Lower flammability limit:		
Vapour pressure		No information available
Vapour density	6.9	No information available
Specific Gravity	2 (20°C)	
Water solubility	21g/100mL (25°C); 100mL (40°C)	
Solubility(ies)		No information available
Partition coefficient	-2.46	
Auto-ignition temperature		No information available
Decomposition temperature	88°C	
Kinematic viscosity		No information available
Dynamic viscosity		
Explosive properties	No information available	
Oxidising properties	No information available	
<u>Other Information</u>		
VOC Content (%)	No information available	
Bulk density	1.0	

Section 10: STABILITY AND REACTIVITY

Reactivity

Hazardous polymerization will not occur, however, this product is a highly reactive oxidizing 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 hydroxyl compounds cause ignition and may be explosive. Contact of acetylene may lead to formation of explosive chloroacetylenes. Reaction with reducing agents causes a violent reaction. Reaction with metal oxides can cause a violent oxygen-evolving decomposition of hypochlorites.

No data available.

Chemical stability

Thermally 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 spontaneous ignition through self-heating.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Possibility of Hazardous Reactions

Possibility of Hazardous Reactions

See Reactivity paragraph above.

Conditions to avoid

Exposure to air or moisture over prolonged periods. Avoid excessive heat, elevated temperatures, sunlight, flame, sources of ignition and shock, dust generation, moisture/high humidity, contamination with combustible material, acidic conditions, the presence of metals and other impurities.

Incompatible materials

Incompatible with strong acids and bases. Incompatible with oxidising agents. 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, hydroxyl compounds, acetylene, acetic acid and potassium cyanide, reducing agents, metal oxides, charcoal plus heat, metals, organic sulfur compounds, sulfur (damp), turpentine and all sources of ignition.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapours. 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 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.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Inhalation	No data available.
Eye contact	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.
Skin contact	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).
Ingestion	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, diarrhea, abdominal pain, convulsions, delirium, coma, respiratory collapse, and possible death. As little as 30 grams may be lethal.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 559.00

ATEmix (dermal) 2,758.00

24 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

4 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

92 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

92 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)

92 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

92% of the mixture consists of ingredient(s) of unknown toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
calcium hypochlorite	= 850 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

No information available.

Sensitisation

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Chemical Name	Australia	IARC
calcium hypochlorite - 7778-54-3		Group 3

IARC (International Agency for
Research on Cancer)

Not classifiable as a human carcinogen

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

Chronic toxicity

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects.

Target Organ Effects

Eyes Respiratory system Skin

STOT - repeated exposure

No information available.

Aspiration hazard

No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

2 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea

calcium hypochlorite	-	0.4: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 0.185 - 0.26: 96 h <i>Cyprinus carpio</i> mg/L LC50 semi-static 0.5: 24 h <i>Morone saxatilis</i> mg/L LC50 static 0.13 - 0.2: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 0.054 - 0.06: 96 h <i>Lepomis macrochirus</i> mg/L LC50 semi-static 0.561 - 1.41: 96 h <i>Pimephales promelas</i> mg/L LC50 static 0.049 - 0.16: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 0.055 - 0.1: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static	-
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Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility**Mobility in soil**

No information available.

Mobility

No information available.

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste from residues/unused products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not re-use container.

Section 14: TRANSPORT INFORMATION**ADG**

UN Number	2880
Proper shipping name	Calcium hypochlorite, hydrated
Hazard Class	5.1
Packing Group	II
Description	UN2880, Calcium hypochlorite, hydrated, 5.1, II

IATA

UN/ID no	2880
Proper shipping name	Calcium hypochlorite, hydrated
Hazard Class	5.1
Packing Group	II
Description	UN2880, Calcium hypochlorite, hydrated, 5.1, II

IMDG

UN/ID no	2880
Proper shipping name	Calcium hypochlorite, hydrated

Hazard Class	5.1
Packing Group	II
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available

Section 15: REGULATORY INFORMATION**Regulatory information****National regulations****Australia**

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonised System (GHS)

See section 8 for national exposure control parameters

International Inventories

TSCA	Complies
NZIoC	Complies
AICS	Complies

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**NZIoC** - New Zealand Inventory of Chemicals**AICS** - Australian Inventory of Chemical Substances**International Regulations****Ozone-depleting substances (ODS)** Not applicable**Persistent Organic Pollutants** Not applicable**Export Notification requirements** Not applicable**SECTION 16: ANY OTHER RELEVANT INFORMATION****Revision Date** 28-Dec-2020**Revision Note**

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The

information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet