

Material Safety Data Sheet



Hazardous Substance, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Aqua Cure Calmax Balance Longlife Chlorine Tablets**

Recommended use: Swimming pool sanitizer

Supplier: Klorman Industries Pty Ltd
ABN: 85 072 597 650
Street Address: 16 Tarlington Place
Smithfield NSW 2164
Australia
Telephone: +612 9604-9080
Facsimile: +612 9604-9093

Emergency telephone number: **0417-399-354 (Monday to Friday 8.30am - 5.00pm EST)**

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



Signal Word

Danger

Hazard Classification

Oxidising Solids – Category 2
Acute Toxicity – Oral – Category 4
Skin Corrosion/Irritation – Category 1B
Serious Eye Damage/Irritation – Category 1
Acute Hazard to the Aquatic Environment – Category 1

Hazard Statement(s)

H272 May intensify fire; oxidizer
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H400 Very toxic to aquatic life

Prevention Precautionary Statement(s)

P102 Keep out of reach of children
P103 Read label before use
P210 Keep away from all sources of ignition - No smoking
P220 Keep/Store away from incompatible materials
P221 Take any precaution to avoid mixing with incompatible materials
P260 Do not breathe dust, fume, gas, mist, vapours or spray

Product name: **Aqua Cure Calmax Balance Longlife Chlorine Tablets**

Substance Key: **KI0001901**

Material Safety Data Sheet



- P264 Wash hands, face and all exposed skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator

Response Precautionary Statement(s)

- P101 If medical advice is needed, have product container or label at hand
P310 Immediately call a POISON CENTER or doctor/physician
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P363 Wash contaminated clothing before reuse

Storage Precautionary Statement(s)

- P405 Store locked up

Disposal Precautionary Statement(s)

- P501 Dispose of contents/container in accordance with local, regional, national and international regulations

Poisons Schedule (Aust): S6

DANGEROUS GOODS CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Class: 5.1 Oxidising Agent

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION
Calcium hypochlorite	7778-54-3	>90%
Water	7732-18-5	5-10%
Ingredients determined to be non-hazardous	-	Balance
		<hr/> 100%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Material Safety Data Sheet



Skin contact: If skin or hair contact occurs, immediately remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre or a Doctor; or for 15 minutes and transport to Doctor or Hospital.

Eye contact: Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.

Ingestion: Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Get to a doctor or hospital quickly.

PPE for First Aiders: Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Notes to physician: Treat symptomatically. Can cause corneal burns.

5. FIRE-FIGHTING MEASURES

Hazchem Code: 1W

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Non-combustible material. Contact with combustible or organic materials may result in ignition.

Fire fighting further advice: Not combustible, however material will decompose if involved in a fire. On decomposing may emit toxic fumes, including chlorine, and also oxygen an accelerant. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (clean rag or paper towels). Allow absorbent to dry before disposing with normal household garbage.

LARGE SPILLS

Clear area of all unprotected personnel. Prevent further leakage or spillage if safe to do so. Wear protective equipment to prevent skin and eye contamination and the inhalation of dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 31

Material Safety Data Sheet



7. HANDLING AND STORAGE

Handling: Avoid skin and eye contact and inhalation of dust.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from sources of heat. Keep containers closed when not in use - check regularly for spills.

This material is classified as a Dangerous Good Class 5.1 Oxidising Substance as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations.

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

National occupational exposure limits:

No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

However for:

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m ³	ppm	mg/m ³		
Chlorine	1	3	Peak limitation		-	-

As published by the Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15-minute period, which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Avoid generating and inhaling dusts. Use with local exhaust ventilation or while wearing appropriate respirator. Chlorine gas vapour is heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

Material Safety Data Sheet



Personal protection equipment: OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.

Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If dust exists, wear respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from neoprene or nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: White tablets with chlorine odour.

Solubility in water:	Appreciable
Specific Gravity (20 °C):	2.35
Relative Vapour Density (air=1):	N App
Vapour Pressure (20 °C):	N App
Flash Point (°C):	N App
Odour Threshold:	1-3 ppm*
Flammability Limits (%):	N App
Autoignition Temperature (°C):	N App
Melting Point/Range (°C):	approx 100
Boiling Point/Range (°C):	N App
Decomposition Point (°C):	N Av
pH:	N App
Moisture content (%):	5-10%
Molecular formula	Ca(OCl) ₂
Molecular weight	142.99
Total VOC (g/Litre):	N Av

* values for chlorine

(Typical values only - consult specification sheet)

N Av = Not available

N App = Not applicable

10. STABILITY AND REACTIVITY

Reactivity: No reactivity hazards are known for the material.

Chemical stability: This material is thermally stable when stored and used as directed.

Hazardous reactions: Contact with acids will result in the evolution of chlorine gas.

Conditions to avoid: Elevated temperatures will result in the material decomposing releasing chlorine gas.

Incompatible Materials: Will react with most organic chemicals. Corrosive to most metals in the presence of moisture.

Hazardous decomposition products: Oxides of carbon and nitrogen, chlorine, smoke and other toxic fumes.

Material Safety Data Sheet



11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye contact: A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Acute toxicity

Inhalation: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Ingestion: This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 300 - 2,000 mg/Kg

Corrosion/Irritancy: Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 1B Hazard (corrosive to skin).

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a respiratory sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

Material Safety Data Sheet



12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as a Category Acute 1 Hazard. Acute toxicity estimate (based on ingredients): >1 mg/L

Long-term aquatic hazard: This material has been classified as non-hazardous.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

UN No:	2880
Dangerous Goods Class:	5.1
Packing Group:	II
Hazchem Code:	2W
Emergency Response Guide No:	31

Proper Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), toxic gases (Class 2.3), flammable liquids (Class 3), flammable solids (Class 4.1), spontaneously combustible substances (Class 4.2), dangerous when wet substances (Class 4.3), organic peroxides (Class 5.2), radioactive substances (Class 7), corrosive substances (Class 8), fire risk substances or combustible liquids, however exemptions may apply. Also note that fire risk substances including dangerous goods of Class 6 or Class 9, which are fire risk substances, are incompatible with dangerous goods of Class 1, Class 5.1 and Class 5.2.

Material Safety Data Sheet



MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No: 2880
Dangerous Goods Class: 5.1
Packing Group: II

Proper Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 2880
Dangerous Goods Class: 5.1
Packing Group: II

Proper Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
Basel Convention (Hazardous Waste)

This material is subject to the following international agreements:

International Convention for the Prevention of Pollution from Ships (MARPOL)

- Annex III - Harmful Substances carried in Packaged Form

This material/constituent(s) is covered by the following requirements:

- The Standard for the *Uniform Scheduling of Medicines and Poisons (SUSMP)* established under the *Therapeutic Goods Act (Commonwealth)*.
- All the constituents of this material are listed on the *Australian Inventory of Chemical Substances (AICS)*.

16. OTHER INFORMATION

Literary reference

This Material Safety Data Sheet has been prepared by Chemical Data Services Pty Ltd (Chemdata.com.au) on behalf of its client.

Reason(s) For Issue: Revised

Material Safety Data Sheet



Material Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Klorman Industries Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

All information given in this data sheet and by the company's technical staff is compiled from the information currently available to the company. The company accepts no responsibility whatsoever for its accuracy, or for any results which may be obtained by customers. Any customer who relies upon any advice or information given in this data sheet by the company or by its technical staff does so entirely at its own risk, and the company will not be liable for any loss or damage thereby suffered notwithstanding any want of care on the part of the company or its staff in compiling or giving the advice or information.

This information is given without warranty or representation. Before using any product, always read the label carefully.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.