SAFETY DATA SHEET

Section 1: Identification of the Substance/Mixture and of Supplier

Product name: **CHLORINE GRANULES (Calcium Hypochlorite)**

Recommended use: Swimming pool water sanitizer
Supplier: Space Industries Limited
Street Address: 160 Plunket Ave,
Wiri, Auckland
New Zealand
Telephone Number: + 64 9 262 3902
Facsimile: + 64 9 262 3948
E-mail: orders@spaceindustries.co.nz
Website: www.spaceindustries.co.nz
Emergency Telephone 0800 764 766 (all hours)
Date of preparation: 1 June 2023

Section 2: Hazards Identification

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ERMA CODE HSR002683 Water Treatment Chemicals (Oxidising Liquids and Solids) Group Standard 2020

GHS Classifications
Oxidising Solid – Category 2
Corrosive to Metals – Category 1
Acute Toxicity (Oral) – Category 4
Skin Corrosion – Category 1C
Serious Eye Damage – Category 1
Hazardous to the Aquatic Environment (Acute & Chronic) – Category 1

Signal Word: DANGER

Hazard Statements
H272 – May intensify fire, oxidiser
H302 – Harmful if swallowed
H290 – May be corrosive to metals
H314 – Causes severe skin burns and eye damage
H318 – Causes serious eye damage
H410 – Very toxic to aquatic life with long lasting effects

Prevention
P210 – Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P220 – Keep away from clothing and other combustible materials
P234 – Keep only in original packaging
P260 – Do not breathe dust

P264 – Wash hands thoroughly after handling
P270 – Do not eat, drink or smoke when using this product
P273 – Avoid release to the environment
P280 – Wear protective gloves/clothing and eye/face protection

Response
P390 – Absorb spillage to prevent material damage
P391 – Collect spillage
P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTRE or Doctor if you feel unwell
P303 + P361 + P353 – IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water (or shower)
P363 – Wash contaminated clothing before reuse
P304 + P340 – IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P310 – Immediately call a POISON CENTRE or Doctor
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P310 – Immediately call a POISON CENTRE or Doctor
P370 + P378 – In case of fire: use flooding quantities of water to extinguish

Storage
P405 – Store locked up
P406 – Store in corrosive resistant container with a resistant inner liner

Disposal
P501 – Dispose of contents/container according to local regulations or authorities

Section 3: Composition/information on ingredients

Product Description:	Swimming pool chemical, algaecides, biocide, and oxidant. White powder with a slight chlorine odour.
UN Number	2880
Components	Calcium Hypochlorite
CAS Number	7778-54-3
Proportion	>65%

Section 4: First Aid Measures

Show this Safety Data Sheet to a Doctor
Short term exposure by all routes is considered to be harmful.

Inhalation:	Remove to fresh air and keep at a rest position comfortable for breathing. If breathing difficult, give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.
Skin Contact:	Immediately flush with large quantities of water. Ensure all contaminated clothing is removed and washed thoroughly.
Eye Contact:	Immediately rinse eyes with water for at least 15 minutes lifting lower and upper eyelids occasionally. Remove contact lenses if present and easy to do so. Seek immediate medical attention.
Ingestion:	Immediately remove product from the mouth. If swallowed, DO NOT induce vomiting. Give a glass of water.

	Contact a Doctor or the Poisons Information Centre (0800 764 766) for further advice
Notes to Doctor:	If swallowed - causes severe burning and corrosion to the mucous membranes and tissues of the mouth, throat and stomach. Corrosive to eyes. Can cause corneal burns. Skin contact will cause moderate irritation. Corrosive on contact with moist skin and will cause burns. If inhaled – mist vapour can produce respiratory irritation and may cause damage of the upper respiratory tract and lung tissues.

For advice, contact the Poisons Information Centre 0800 764 766 or a doctor

Section 5: Fire Fighting Measures

Specific Hazards:	Non combustible, but will support combustion of other materials
Suitable Extinguishing Media:	Large quantities – Water spray
Fire-fighting advice:	Calcium Hypochlorite is a powerful oxidizing agent and decomposes violently upon heating liberating oxygen, and toxic chlorine gas. In case of fire, area must be evacuated and specialist fire fighters called. Only large quantities of water should be used as an extinguishing agent. If excess water is not available DO NOT attempt to extinguish the fire; use available water to prevent the spread of fire to adjacent property. Attending fire fighters should keep upwind if possible and wear full protective equipment including rubber boots and self-contained breathing apparatus. A fire in the vicinity of Calcium Hypochlorite should be extinguished in the most practical manner, but avoid contaminating this material with the fire fighting agent, including water. Decomposes on contact with water evolving toxic chlorine gas. Once fire is extinguished, wash area thoroughly with excess water. Ensure that drains are not blocked with solid material. Maintenance of excess water during cleaning up operation is essential. Combustible material involved in the incident should be removed to a safe open area for controlled burning or for further drenching with water prior to collection for disposal.

Section 6: Accidental Release Measures

Procedures to be covered:	Wear protective equipment to prevent skin and eye contact and breathing in vapours/dust. Air-supplied masks are recommended to avoid inhalation of toxic material. DO NOT return spilled material to original container. DO NOT add small amounts of water to calcium hypochlorite. Sweep up, avoiding generation of dust, then immediately spread as a thin layer in uncontaminated, dry, open area to reduce the possibility of local hot spots forming. Where a spill has occurred in a confined space or an inadequately ventilated enclosure and the material is damp and evolving chlorine, the rate of chlorine evolution can be reduced by covering the thinly spread solid with soda ash. For large spills notify the Emergency Services.

Section 7: Handling and Storage

Handling:	Keep out of reach of children.

	Read label before use. Wear full protective clothing to avoid splashes. No smoking.
Storage:	Store away from acids, alkalis, reducing agents, detergents or organic materials. Product will react with to produce heat and toxic gases. Keep away from heat. Store in a cool, well ventilated area away from direct sunlight. May be stored in PVC, FRTP, polypropylene or polyethylene containers. Mild steel and stainless steel are rapidly degraded. Copper, brass, bronze and iron will catalytically degrade the product. Storage tanks should be bunded to contain the entire contents in case of leaks or spills. Store away from clothing Keep dry - reacts with water, may lead to drum rupture. Keep containers closed when not in use. Check regularly for spills. .

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits:	No value assigned for this specific material by Worksafe NZ
Engineering Control Measures:	Use in a well ventilated area.
	Wear full protective clothing to avoid splashes.
Personal Protective Equipment:	As product can cause eye irritation, safety glasses or goggles must be worn. The use of rubber gloves is recommended. Wash contaminated clothing and other protective equipment before storage or re-use

Section 9: Physical and Chemical Properties

Physical state:	Powder
Colour:	White
Odour:	Slight Chlorine
Solubility:	Soluble in water
Specific Gravity/Bulk Density:	Approx 0.98 - variable
Vapour Pressure (20 °C):	Not available
Flash Point (°C):	None
Strength:	65% available Chlorine
pH of Solutions:	Alkaline

Section 10: Stability and Reactivity

Stability:	Powerful oxidizing agent.
Conditions to avoid:	
Incompatible materials:	Incompatible with Dichloroisocyanuric Acid, Ammonium Nitrate, Trichloroisocyanuric Acid, or any Chloroisocyanurate.
Hazardous decomposition products:	Calcium Hypochlorite
Hazardous reactions:	Reacts with water liberating chlorine.

Section 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:

Ingestion:	Causes severe burning and corrosion to the mucous membranes and tissues of the mouth, throat and stomach.
Eye contact:	Corrosive to eyes. Can cause corneal burns.
Skin contact:	Skin contact will cause moderate irritation. Corrosive on contact with moist skin and will cause burns.
Inhalation:	Mist vapour can produce respiratory irritation and may cause damage of the upper respiratory tract and lung tissues.
Toxicological Data:	850 mg/kg.

Section 12: Ecological Information

	Avoid contaminating waterways.
Environmental fate, persistence and degradation:	This material is biodegradable
Aquatic toxicity:	Very toxic to aquatic organisms. 24hr LC50 (striped bass larvae) = 0.7 mg/L
Terrestrial toxicity:	Expected to be harmful to terrestrial species

Section 13: Disposal Considerations

Refer to Waste Management Authority.
Dispose of material through a licensed waste contractor.
Flush to drain with large quantities of water.

Section 14: Transport Information

Road and Rail Transport:	Classified as a Dangerous Good according to NZS 5433:1999 Transport of Dangerous Goods on Land.
UN No:	2880
Class-primary	5.1.1B Oxidizing Agent
Packing Group:	II
Proper Shipping Name:	CALCIUM HYPOCHLORITE, HYDRATED
Hazchem Code:	2W
Marine Transport:	Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS
UN No:	2880
Class-primary	5.1.1B Oxidizing Agent
Packing Group:	II
Proper Shipping Name:	CALCIUM HYPOCHLORITE, HYDRATED

Section 15: Regulatory Information

ERMA:	HSR002683 Water Treatment Chemicals (Oxidising Liquids and Solids) Group Standard 2020

Section 16: Other Information

.Issue Date: June 2023

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