

1. Identification of Substance & Company

PRODUCT

Product name	Chlorine Granules 70%
Other names	Calcium hypochlorite 70% Pills
HSNO approval	HSR002632
Approval description	Oxidising Liquids and Solids (Corrosive) GS 2020
UN number	2880
DG class	5.1
Proper Shipping Name	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, with not less than 5.5% but not more than 16% water
Packaging group	II
Hazchem code	1W
Uses	Pool Chemical

COMPANY DETAILS

Company	Poolquip (2018) Ltd	
Physical Address	20 Ascot Road, Mangere, Auckland 2022 New Zealand	PO Box 53090 Airport Oaks Auckland 2020 New Zealand
Telephone	+649 634 9097	
Fax	+649 634 1020	
Website	www.paramountpools.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

APPROVAL

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO), approval HSR002632, Oxidising Liquids and Solids (Corrosive) GS 2020. The substance has been assessed as hazardous according to the criteria in the Hazardous Substances (Hazard Classification) Notice 2020 and is classified as follows:

CLASSIFICATIONS

Classification Oxidising Solid 2
Classification Metal Corrosion 1
Classification Acute Toxicity 4 (oral)
Classification Skin Corrosion 1C
Classification Eye Damage 1
Classification Aquatic Acute 1
Classification Aquatic Chronic 1

HAZARD STATEMENTS

May intensify fire; oxidizer.
May be corrosive to metals.
Harmful if swallowed.
Causes severe skin burns and eye damage.
Very toxic to aquatic life with long lasting effects.

SYMBOLS

DANGER



OTHER CLASSIFICATIONS

There are no other classifications that are known to apply.

PRECAUTIONARY STATEMENTS

Keep out of reach of children.
 Read carefully and follow all instructions.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Keep away from clothing and other combustible materials.
 Keep only in original packaging.
 Do not breathe dust or fumes.
 Wash hands thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Avoid release to the environment.
 Wear protective clothing, gloves, and eye or face protection.
 If medical advice is needed, have product container or label at hand.
 IF SWALLOWED: Rinse mouth. Do NOT Induce vomiting. Call a POISON CENTRE or doctor if you feel unwell.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a 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 doctor.
 In case of fire: use any fire-suppressing agent to extinguish.
 Absorb spillage to prevent material damage.
 Collect spillage.
 Store locked up.
 Dispose of contents and container in accordance with local, regional, national, and international regulations.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
calcium hypochlorite	7778-54-3	850g/kg
ingredients not contributing to HSNO classes	mixture	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

GENERAL INFORMATION

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities

Ready access to running water is required. Accessible eyewash is required.

EXPOSURE

Swallowed	IF SWALLOWED: Rinse mouth. Do NOT Induce vomiting. Call a POISON CENTRE or doctor if you feel unwell.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.
Inhaled	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.

ADVICE TO DOCTOR

Treat symptomatically.

5. Firefighting Measures

Fire and explosion hazards:	This product is an oxidiser. Oxidising materials can increase the intensity of fire. Fire decomposition products may be toxic if inhaled.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.
Unsuitable extinguishing substances:	None known.
Products of combustion:	Chlorine, hydrogen chloride gas, compounds of chlorine and calcium. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	1W

6. Accidental Release Measures

Containment	If greater than 100kg is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Not applicable

Precautions Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage and Handling

Storage Avoid storage of harmful substances with food. Store out of reach of children. Store locked up. Store in a cool ventilated place. Containers should be kept closed in order to minimise contamination. Keep from extreme heat, sunlight and open flames. Avoid contact with incompatible substances as listed in Section 10. Location compliance certificates must be available if storing >1000kg (closed), 100kg (open). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.

Handling Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

WORKPLACE EXPOSURE CONTROLS

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.


NZ Workplace Exposure Stds.	Ingredient	WES-TWA*	WES-STEL
	Calcium hypochlorite	data unavailable	data unavailable


* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.


ENGINEERING CONTROLS

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

PERSONAL PROTECTIVE EQUIPMENT

Eyes  Protect eyes with goggles, safety glasses or full face mask. Avoid wearing contact lenses.

Skin  Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. PVC or Neoprene gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking.

Respiratory  A respirator when airborne concentrations approach the WES (section 8). Use a full face respirator with a particulate (dust) filter. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES ADDITIONAL INFORMATION

Not applicable.

9. Physical and Chemical Properties

Appearance	white to cream coloured free flowing powder or granulated solid
Odour	mild chlorine odour
pH	2.7-2.9 (1% in water)
Vapour pressure	no data
Viscosity	no data
Boiling point	no data
Volatile materials	no data
Freezing / melting point	no data
Solubility	moderately soluble
Specific gravity / density	no data
Flash point	no data
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data

10. Stability and Reactivity

Corrosiveness	corrosive
Stability	Stable
Conditions to be avoided	Oxidising substance - keep away from sources of ignition and flammable and combustible materials. Store in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated.
Incompatible groups	Acids, strong reducing agents, zinc, tin, aluminium and their alloys, combustible materials
Substance Specific Incompatibility	none known
Hazardous decomposition products	Hydrogen chloride gas, other compounds of chlorine, calcium compounds.
Hazardous reactions	This product will not undergo polymerisation reactions.

11. Toxicological Information

SUMMARY

IF SWALLOWED: harmful if swallowed. The substance is highly irritating to mouth, throat and gastrointestinal system causing pain and blistering.

IF IN EYES: causes eye damage, with stinging, reddening and watering of the eye. The eye lids may swell and blurred vision may also become evident.

IF ON SKIN: may cause skin burns, if left on skin for a lengthy period.

IF INHALED: dusts may be irritating to the respiratory system. Symptoms may include headaches, irritation of the nose and throat.

SUPPORTING DATA

Acute	Oral	Using LD50's for ingredients, the calculated LD50 (oral, rat) for the mixture is between 300 and 2000 mg/kg. Data considered includes: calcium hypochlorite 850mg/kg (rat).
	Dermal	No evidence of dermal toxicity.
	Inhaled	No evidence of acute inhalation toxicity.
	Eye	Calcium hypochlorite is considered an eye corrosive.
	Skin	Calcium hypochlorite is considered a skin corrosive.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.

Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
Systemic	No ingredient present at concentrations > 1% is considered a target organ toxicant.
Aggravation of existing conditions	None known.

12. Ecological Data

SUMMARY

This substance is considered very toxic towards aquatic organisms, toxic in the soil environment and harmful towards terrestrial vertebrates.

SUPPORTING DATA

Aquatic	Using EC50's for ingredients, the calculated EC50 for the mixture is < 1 mg/L. Data considered includes: calcium hypochlorite 0.016mg/L - 0.033mg/L (96h, Osmerus mordax), 0.067-0.079mg/L (48h, Daphnia magna).
Bioaccumulation	No data
Degradability	No data
Soil	Calcium hypochlorite is classed by EPA as 9.2A.
Terrestrial vertebrate	This substance is harmful towards terrestrial vertebrates, see acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN Number:	2880
Proper shipping name:	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, with not less than 5.5% but not more than 16% water
Classes:	5.1
Packing group:	II
Precautions:	Oxidiser
Hazchem code:	1W

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO).
 Approval code: HSR002632 - Oxidising Liquids and Solids (Corrosive) GS 2020

SPECIFIC CONTROLS

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 100kg is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 100kg is stored.
Signage	Required if > 100kg is stored in any one location.
Location compliance certificate	Required if > 1000kg (closed) or >100kg (open) is stored in any one location.
Flammable zone	Not required.
Fire extinguisher	If > 500kg present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

OTHER LEGISLATION

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

ABBREVIATIONS

Approval code	Approval HSR002632 - Oxidising Liquids and Solids (Corrosive) GS 2020, Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit

LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

REFERENCES

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other references:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

REVIEW

Date	Reason for review
June 2018	Not applicable – new SDS
August 2023	5 yearly review, HSNO to GHS 7

DISCLAIMER

This SDS is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely GHS 7 classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological).