

### 1. Identification of Substance & Company

#### Product

<b>Product name</b>	Liquid chlorine 12.5%	
<b>Other names</b>	Sodium hypochlorite solution	
<b>HSNO approval</b>	HSR003698	
<b>Approval description</b>	Water Treatment Chemicals (Corrosive) GS 2020	
<b>UN number</b>	1791	
<b>DG class</b>	8	
<b>Proper Shipping Name</b>	SODIUM HYPOCHLORITE	
<b>Packaging group</b>	II	
<b>Hazchem code</b>	2X	
<b>Uses</b>	Pool Chemical	

#### Company Details

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

**Emergency Telephone Number: 0800 764 766**

### 2. Hazard Identification

#### Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO) Approval HSR003698, Water Treatment Chemicals (Corrosive) GS 2020: The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2020 and is classified as follows:

#### CLASSIFICATIONS

Classification Skin Corrosion 1C  
Classification Eye Damage 1

#### HAZARD STATEMENTS

Harmful if swallowed  
Toxic in contact with skin  
Causes severe skin burns and eye damage  
Very toxic to aquatic life

#### 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.  
 Do not breathe mist.  
 Wash hands thoroughly after handling.  
 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.  
 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.  
 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 (%)
sodium hypochlorite	7681-52-9	13-15%
sodium hydroxide	1310-73-2	<1%
Ingredients not contributing to HSNO classes	-	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.  
**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 INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.

#### Advice to Doctor

Treat symptomatically

### 5. Firefighting Measures

**Fire and explosion hazards:** There are no specific risks for fire/explosion for this chemical. It is non-flammable.  
**Suitable extinguishing substances:** Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.  
**Unsuitable extinguishing substances:** Unknown.

**Products of combustion:** No special measures are required.  
**Protective equipment:** Carbon dioxide, and if combustion is incomplete, carbon monoxide, chlorine and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

**Hazchem code:** 2X

## 6. Accidental Release Measures

<b>Containment</b>	If greater than 1000L 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.
<b>Emergency procedures</b>	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).
<b>Clean-up method</b>	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.
<b>Disposal</b>	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
<b>Precautions</b>	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

## 7. Storage & Handling

<b>Storage</b>	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Store locked up.
<b>Handling</b>	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 Standards

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

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	sodium hypochlorite	data unavailable	data unavailable
	chlorine	0.5ppm, 1.5mg/m <sup>3</sup>	1ppm, 2.9mg/m <sup>3</sup>
	sodium hydroxide	Ceiling 2 mg/m <sup>3</sup>	

\* 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. 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 Multi Gas & Vapor Respirator. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

### WES Additional Information

Not applicable

## 9. Physical & Chemical Properties

<b>Appearance</b>	pale yellow liquid
<b>Odour</b>	chlorine odour
<b>pH</b>	1% solution: 9.5-10.5. 10-11 (as supplied)
<b>Vapour pressure</b>	no data
<b>Viscosity</b>	no data
<b>Boiling point</b>	no data
<b>Volatile materials</b>	may evolve chlorine gas
<b>Freezing / melting point</b>	~-25°C
<b>Solubility</b>	soluble in water
<b>Specific gravity / density</b>	1.1-1.2g/cm <sup>3</sup>
<b>Flash point</b>	no data
<b>Danger of explosion</b>	no data
<b>Auto-ignition temperature</b>	no data
<b>Upper &amp; lower flammable limits</b>	no data
<b>Corrosiveness</b>	corrosive

## 10. Stability & Reactivity

<b>Stability</b>	Stable at ambient temperature and pressure. The amount of available chlorine does diminish over time.
<b>Conditions to be avoided</b>	Containers should be kept closed in order to avoid contamination. Keep from extreme heat, sources of ignition and open flames. Avoid exposure to light and sunlight. Avoid contact with foodstuffs.
<b>Incompatible groups</b>	Acids, metals, metal salts, peroxides, reducing agents and ethylene diamine tetraacetate (EDTA), ammonia, ammonium compounds
<b>Hazardous decomposition products</b>	Contact with acids liberates toxic gas (chlorine).
<b>Hazardous reactions</b>	Some reactions with incompatible substance are exothermic (give off heat).

## 11. Toxicological Information

### Summary

IF SWALLOWED: may cause damage to the gastrointestinal tract and nausea, vomiting and abdominal pain.

IF IN EYES: will irritate the eyes with stinging and redness. If left in eye contact can cause burns to the eye with possible permanent eye damage.

IF ON SKIN: may cause the skin burns.

IF INHALED: vapours and mists can cause irritation of the upper respiratory tract causing coughing and/or shortness of breath. Higher concentrations can cause build up of fluid in the lungs. Exposure may also cause headaches, dizziness, nausea and vomiting. Symptoms may be delayed up to 48 hours.

### Supporting Data

<b>Acute</b>	<b>Oral</b>	Using LD <sub>50</sub> 's for ingredients, the calculated LD <sub>50</sub> (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: sodium hypochlorite 5800mg/kg (mouse).
	<b>Dermal</b>	Using LD <sub>50</sub> 's for ingredients, the calculated LD <sub>50</sub> (dermal, rat) for the mixture is >5,000 mg/kg. Data considered includes: sodium hydroxide 1349mg/kg (rat).
	<b>Inhaled</b>	This mixture is not considered acutely toxic by inhalation, however inhalation of aerosol of sodium hypochlorite may cause lung oedema. The effects may be delayed. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort.
	<b>Eye</b>	The mixture is considered to be corrosive to the eye, because Sodium hypochlorite present at >3% are considered eye corrosives.
	<b>Skin</b>	The mixture is considered to be a skin corrosive. Sodium hypochlorite and sodium hydroxide are skin corrosives.
<b>Chronic</b>	<b>Sensitisation</b>	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	<b>Mutagenicity</b>	No ingredient present at concentrations > 0.1% is considered a mutagen.
	<b>Carcinogenicity</b>	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	<b>Reproductive / Developmental</b>	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	<b>Systemic Aggravation of existing conditions</b>	No ingredient present at concentrations > 1% is considered a target organ toxicant. None known

## 12. Ecological Data

### Summary

This mixture is considered toxic in the aquatic environment.

### Supporting Data

<b>Aquatic</b>	Using EC <sub>50</sub> 's for ingredients, the calculated EC <sub>50</sub> for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: Sodium Hypochlorite 0.065 mg/l (96hr, fish), 0.032 mg/l (48hr, Daphnia magna), 46 mg/l (96hr, red algae), sodium hydroxide 45.4 mg/l (96hr, fish), 40.38 mg/l (48hr, water flea).
<b>Bioaccumulation</b>	No data
<b>Degradability</b>	No data
<b>Soil</b>	No data
<b>Terrestrial vertebrate</b>	This product is not considered ecotoxic towards terrestrial vertebrates.
<b>Terrestrial invertebrate</b>	No evidence of ecotoxicity towards terrestrial invertebrates.
<b>Biocidal</b>	no data
<b>Environmental effect levels</b>	No EELs are available for this mixture or ingredients

## 13. Disposal Considerations

<b>Restrictions</b>	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
<b>Disposal method</b>	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.
<b>Contaminated packaging</b>	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.

<b>UN number:</b>	1791	<b>Proper shipping name:</b>	HYPOCHLORITE SOLUTION
<b>Class(es)</b>	8	<b>Packing group:</b>	II
<b>Precautions:</b>	CORROSIVE LIQUID, MARINE POLLUTANT	<b>Hazchem code:</b>	2X

## 15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR003698, Water Treatment Chemicals (Corrosive) GS 2020. All ingredients appear on the NZIoC.

### 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 that have been 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 > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

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

<b>Approval Code</b>	Approval HSR003698, Water Treatment Chemicals (Corrosive) GS 2020,
<b>CAS Number</b>	EPA. <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
<b>Ceiling</b>	Unique Chemical Abstracts Service Registry Number Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
<b>Controls Matrix</b>	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
<b>EC<sub>50</sub></b>	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
<b>EPA</b>	Environmental Protection Authority (New Zealand)
<b>HAZCHEM Code</b>	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
<b>HSNO</b>	Hazardous Substances and New Organisms (Act and Regulations)
<b>IARC</b>	International Agency for Research on Cancer
<b>LEL/UEL</b>	Lower Explosive Limit/ Upper Explosive Limit
<b>LD<sub>50</sub></b>	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
<b>LC<sub>50</sub></b>	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
<b>NZIoC</b>	New Zealand Inventory of Chemicals
<b>MSDS (SDS)</b>	Material Safety Data Sheet (or Safety Data Sheet)
<b>PES</b>	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).
<b>STEL</b>	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
<b>TWA</b>	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
<b>UN Number</b>	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](http://www.epa.govt.nz), Health and Safety at Work (Hazardous Substances) Regulations 2017, [www.legislation.govt.nz](http://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](http://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).