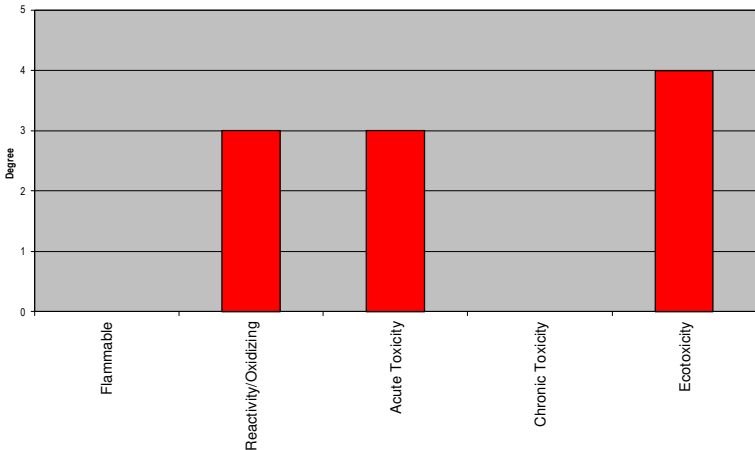
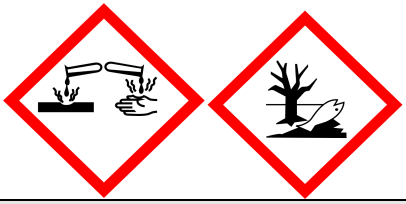


1. Identification of Substance & Company													
Product Name:	Liquid Plumr® Full Clog Destroyer Clog Remover												
Other Names:	NA												
HSNO Approval:	HSR002526, Cleaning Products (Corrosive) Group Standard 2017												
Product Code:	NA												
Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (contains sodium hypochlorite)												
UN Number:	1760												
Packaging group:	III												
Hazchem Code:	2X												
Uses:	Drain cleaner/opener												
Company Details													
Company:	Clorox New Zealand Ltd												
Address:	Level 8, Building 5, Central Park 660-670 Great South Road Penrose Auckland 1061 New Zealand												
Telephone Number:	0800 108 858												
Emergency Telephone Number:	Poisons and Hazardous Chemicals National Information Centre. Urgent information: 0800 764 766. Working hours: 03 479 7248												
2. Hazard Identification													
Hazard Classifications													
<p>This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002526, Cleaning Products (Corrosive) Group Standard 2017), and is classified as follows:</p> <p><b>Classes: Hazard Statement</b></p> <p>6.1E (respiratory irritation) - H335 - May cause respiratory irritation.</p> <p>8.2C H314 - Causes severe skin burns and eye damage.</p> <p>8.3A H318 - Causes serious eye damage.</p> <p>9.1B H411 - Toxic to aquatic life with long lasting effects.</p>	<p>Degree of Hazard:</p>  <table border="1"> <thead> <tr> <th>Hazard Class</th> <th>Degree</th> </tr> </thead> <tbody> <tr> <td>Flammable</td> <td>0</td> </tr> <tr> <td>Reactivity/Oxidizing</td> <td>3</td> </tr> <tr> <td>Acute Toxicity</td> <td>3</td> </tr> <tr> <td>Chronic Toxicity</td> <td>0</td> </tr> <tr> <td>Ecotoxicity</td> <td>4</td> </tr> </tbody> </table>	Hazard Class	Degree	Flammable	0	Reactivity/Oxidizing	3	Acute Toxicity	3	Chronic Toxicity	0	Ecotoxicity	4
Hazard Class	Degree												
Flammable	0												
Reactivity/Oxidizing	3												
Acute Toxicity	3												
Chronic Toxicity	0												
Ecotoxicity	4												
<p>Symbols:</p> <p><b>DANGER</b></p> 													
Precautionary Statements:													
<p>P101 - If medical advice is needed, have product container or label at hand.</p> <p>P102 - Keep out of reach of children.</p> <p>P103 - Read label before use.</p> <p>P260 - Do not breathe vapours.</p> <p>P264 - Wash hands thoroughly after handling.</p> <p>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P273 - Avoid release to the environment.</p> <p>P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P363 - Wash contaminated clothing before reuse.</p> <p>P310 - Immediately call a POISON CENTRE or doctor/physician.</p> <p>P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p>													

P310 - Immediately call a POISON CENTRE or doctor/physician.  
P391 - Collect spillage.

### 3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
sodium hypochlorite	7681-52-9	3-7%
sodium hydroxide	1310-73-2	1-2.5%

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. Give a glass of water to drink. Contact a doctor. If conscious, give plenty of water to drink. Contact the National Poisons Centre or a Doctor immediately.

Eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. Immediately call a POISON CENTER or doctor/physician.

Skin contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

Inhaled: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor. If experiencing respiratory symptoms: Call a POISON CENTER or 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.

Protective Equipment: No special measures are required.

Danger caused by material, its combustion products or gases produced: Carbon dioxide, and if combustion is incomplete, carbon monoxide 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



Containment: If greater than >1000kg 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: If a significant spill occurs: Stop leak if safe/necessary; Isolate area. Collect spill – see below; Transfer to container for disposal. Dispose of according to guidelines below (Section 13).

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: 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.

Precautions: No special protective clothing is normally necessary.

7. Storage and Handling			
Storage:		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.	
Handling:		Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.	
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 Standards (2016):	Ingredient	WES-TWA	WES-STEL
	sodium hypochlorite	data unavailable	data unavailable
	sodium hydroxide	Ceiling 2 mg/m <sup>3</sup>	data unavailable
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 repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. 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			
Appearance:	clear viscous liquid, pale yellow		
Odour:	bleach odour		
pH:	~13		
Vapour Pressure:	no data		
Boiling Point:	no data		
Volatile Materials:	no data		
Softening/Melting Point:	no data		
Solubility:	soluble in water		
Specific Gravity or Density:	1.1g/cm <sup>3</sup>		
Flash Point:	no data		
Danger of Explosion:	not explosive		
Auto-Ignition Temperature:	no data		
Upper and Lower Flammable Limits:	no data		
Corrosiveness:	Corrosive		

10. Stability & Reactivity		
Stability:		Stable
Conditions to be avoided:		Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible Materials:		Other drain cleaners, including other Liquid Plumr® products, Strong acids, strong bases, oxidising agents, e.g. hydrogen peroxide. Quaternary ammonium chlorides. Organic compounds. Reducing agents.
Hazardous Decomposition Products:		Carbon oxides, chlorine gas
Hazardous Reactions:		May react with other drain cleaners, including other Liquid-Plumr® products, to produce hazardous gases, may be violent and give off toxic gases (chlorine).
11. Toxicological Information		
<i>Summary</i>		
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 eye damage.		
IF ON SKIN: may cause the skin burns.		
IF INHALED: vapours 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.		
<i>Supporting Data</i>		
Acute:	Oral:	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).
	Dermal:	No evidence of dermal toxicity.
	Inhaled:	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.
	Eye:	The mixture is considered to be corrosive to the eye, because Sodium hypochlorite present at >3% are considered eye corrosives.
	Skin:	The mixture is considered to be a skin corrosive. Sodium hypochlorite and sodium hydroxide are skin corrosives.
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		
<i>Summary</i>		
This mixture is considered toxic in the aquatic environment.		
<i>Supporting Data</i>		
Aquatic:		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).
Bioaccumulation:		No data
Degradability:		No data
Soil:		No data
Terrestrial vertebrate:		This product is not considered ecotoxic towards terrestrial vertebrates.
Terrestrial invertebrate:		No evidence of ecotoxicity towards terrestrial invertebrates.
Biocidal:		no data

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			
There are no specific restrictions for this product (not a dangerous good).			
UN Number:	1760	Proper Shipping Name:	CORROSIVE LIQUID, N.O.S. (contains sodium hypochlorite)
Class(es):	8	Packing Group:	III
Precautions:	Corrosive liquid Marine pollutant	HAZCHEM Code:	2X
15. Regulatory Information			
This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002526, Cleaning Products (Corrosive) Group Standard 2017.			
Specific Controls			
Key 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			
Approval Code:	Approval HSR002526, Cleaning Product (Corrosive) Group Standard 2017 Controls, EPA. <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>		
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).		
EC <sub>50</sub>	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	Lower Explosive Limit		

LD <sub>50</sub>	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC <sub>50</sub>	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
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)
UEL	Upper Explosive Limit
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.
<b>References</b>	
Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> , Health and Safety at Work (Hazardous Substances) Regulations 2017, <a href="http://www.legislation.govt.nz">www.legislation.govt.nz</a>
WES 2016	The NZ Workplace Exposure Standards Effective from 2016, published by WorkSafe NZ and available on their web site – <a href="http://www.worksafe.govt.nz">www.worksafe.govt.nz</a> .
Other References:	Suppliers SDS
<b>Review</b>	
Date	Reason for review
March 2018	Not applicable: new SDS
<b>Disclaimer</b>	
<p>This SDS was prepared by Datachem LTD and 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 graph on the first page of the SDS gives you an immediate idea of the type and severity of hazard that the chemical may pose. These ratings, and the likely HSNO classifications, are based on our experience, EPA Guidelines and international classifications. To contact the SDS author, email <a href="mailto:info@datachem.co.nz">Datachem info@datachem.co.nz</a> or phone: <b>(09) 940 30 80</b>.</p> <div>  <b>Datachem</b> </div>	