SAFETY DATA SHEET

1 IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

Product name: **HYPERSTAT**

Also Known As: **SODIUM HYPCHLORITE 135g/l, Bleach, Chlorine**

Recommended uses: **Water treatment, sanitising, bleach**

Supplier: **Ecochem Ltd, 65 Kennaway Road, Woolston, Christchurch**

Phone (03) 377 1982

In emergency dial 111 then ask for Fire, Ambulance or Police as required, call Ecochem on 0800 249 224 for specialist chemical advice.

In case of poisoning phone National Poisons Dunedin 0800 764 766

2 HAZARDS IDENTIFICATION

CORROSIVE

DANGER

KEEP OUT OF REACH OF CHILDREN
Read Label Before Use and Read Safety Data Sheet Before Use

HSNO Classifications: Skin Corrosion Category 1C, Serious Eye Damage Category 1, Hazardous to the Aquatic Environment Chronic Category 2

Transport: Class 8

HAZARD WARNINGS: Causes severe skin burns and serious eye damage. Do not breathe fumes, mist, vapours or spray. Contact with acids liberates toxic gas. Toxic to aquatic life with long lasting effects.

PRECAUTIONS: Wear PVC gloves, apron and safety glasses/goggles plus face shield. Do not mix with acids. Wash hands thoroughly after handling. Dispose of empty container by rinsing three times, remove labels then recycle or dump. Avoid release to the environment.

3 COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion

Sodium Hydroxide	**1310-73-2**	**1.0% w/w**
Sodium Hypochlorite	**7681-52-9**	**10-15 %**

Plus: sodium chloride and water.

4 FIRST AID MEASURES

IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower. Wash with plenty of cold water. If exposed or if you feel unwell: call the NATIONAL POISON CENTRE 0800 764 766 or doctor. Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call the NATIONAL POISON CENTER 0800 764 766 or doctor. If more than 20ml is swallowed call an ambulance.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately Call NATIONAL POISON CENTER 0800 764 766 or doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Ring 111 for Ambulance or immediately call NATIONAL POISON CENTER 0800 764 766 or doctor.

SYMPTOMS AND EFFECTS, ACUTE AND DELAYED, FROM EXPOSURE

HYPERSAT is a concentrated chlorine bleach. It can corrode eye tissue if splashed in eyes, and can release chlorine gas internally if swallowed which may result in pain and vomiting, which could result in lung damage or worse.

Swallowed: can be fatal. Corrosive. Causes burns to mouth and throat, nausea, vomiting, abdominal pains and diarrhoea (occasionally bloody). Can also cause swelling of the larynx and suffocation, perforation of stomach and intestines with constrictive scarring, heart failure and coma.

Eye: Corrosive, causes severe corneal burns. May cause blindness.

Skin: corrosive to skin - may cause skin burns. Skin contact often does not cause pain initially thus care should be taken to avoid contamination of gloves and footwear.

Repeated or prolonged contact may lead to irritant contact dermatitis.

Inhaled: Inhalation of mists of the solution will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary oedema, pneumonitis, and emphysema.

Chronic: long-term, low-level exposure can lead to irritation of skin, lungs, nose, throat and mouth.

Advice to Doctor: Sodium hydroxide solution, if swallowed, may cause holes in stomach and intestines. Evacuation of stomach should not be attempted.

Other Information: LDLo Sodium hydroxide: 500 mg/kg oral, rabbit

5 FIRE FIGHTING MEASURES

Hazards from combustion products: Non-combustible material.

Precautions for fire fighters and special protective equipment: not combustible, however following evaporation of aqueous component residual material can vaporise if involved in a fire, emitting toxic corrosive fumes. Contact with metals may liberate hydrogen gas, which, is extremely flammable. Fire fighters must wear eye protection plus suitable self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

Suitable Extinguishing Media: Not combustible, however, if material is involved in a fire use: water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

May form toxic oxides of chlorine if involved in a fire.

6 ACCIDENTAL RELEASE MEASURES

CAUTION: Before dealing with spills take necessary protective measures and inform others to keep at a safe distance.

Flush down sewer (i.e. treated system), not storm water system, with copious water. Otherwise absorb with an inert inorganic absorbent such as sand, lime or zeolite, transfer to sealed container and arrange removal by disposals company. Wash site of spillage thoroughly with water and detergent then mop up. Ventilate area to dispel any residual vapours.

Full protective clothing should be worn, and relevant local authorities informed if the spill is greater than 10 litres.

7 HANDLING AND STORAGE

Store in a cool, well ventilated place out of reach of children. Large quantities should be stored in a bunded area. Store in original container. Never store in unlined metal containers. Keep container tightly closed. Keep out of direct sunlight.

Isolate from incompatible substances such as combustible materials, acids, metals and their salts, aliphatic and aromatic amines, methanol and nitrites, other oxidising agents, and reducing agents.

Prevent vapours from collecting in enclosed spaces. Protect from physical damage.

Clean up all spills and splashes promptly to avoid secondary accidents

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Airborne Exposure Limits:	**AIHA (WEEL) - Sodium Hypochlorite: 2 mg/m3 (STEL)** **Chlorine (from Sodium Hypochlorite): 0.5 ppm (TWA), 1ppm (STEL)**
Ventilation System:	**A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure**

	Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection:	**Selected from those recommended following, as appropriate to mode of use, quantity handled and degree of hazard: Self contained breathing apparatus, face shield, goggles or safety glasses, gloves, rubber or plastic, plastic apron, sleeves and boots, impervious overalls. CAUTION: Cotton or linen overalls impregnated with Sodium Hypochlorite may be readily ignited and can burn fiercely. If the exposure limit is exceeded, a full face-piece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the respirator supplier.** **For emergencies or instances where the exposure levels are not known, use a full-face piece positive pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen deficient atmospheres**

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	**Clear greenish almost colourless mobile liquid. May become yellow after prolonged storage.**
Density:	**About 1.21 kg/L**
Flash Point:	**Non Flammable**
Solubility:	**Completely miscible with water.**
pH:	**over 12 (alkaline)**

10 STABILITY AND REACTIVITY

Sodium Hypochlorite is stable if stored at temperatures below 28C and not exposed to UV light or in contact with metals.

Contact with combustible material may cause fire. Contact with acids will generate chlorine, a toxic and corrosive gas. May react violently with reducing agents. Can react with primary aliphatic and aromatic amines, methanol and nitrites to give explosive products. May react vigorously with other oxidising agents. Incompatible with most metals. Will slowly decompose on standing, generating oxygen. Decomposition will be accelerated by contamination and by exposure to UV light or heat. May react vigorously with peroxides and metal salts. On long storage, may generate pressure inside sealed containers. Open cautiously.

11 TOXICOLOGICAL INFORMATION

Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Severe irritation and corrosion of the mouth, throat and digestive tract.

Eye Contact: Liquid: severe damage even on short duration.
Vapour: irritation

Skin Contact: Liquid: severe irritation and burns if contact is prolonged. Vapour: little or no effect.

Inhalation: Breathing Exposure to mist or spray causes irritation of the nose, throat and digestive tract.

Irritation Data: Eye, rabbit, 10 mg – moderate irritant

Carcinogenicity Indicators: Nil

12 ECOLOGICAL INFORMATION

Sodium Hypochlorite is mobile and soluble. Toxic to aquatic life with long lasting effects. Avoid release to the environment.

13 DISPOSAL CONSIDERATIONS

Send waste to an approved waste facility or treat onsite by dilution with water then flushing down sewer when the pH is between 6 and 9. Contamination of product may change waste management options

Rinse the plastic packaging three times inside and out to remove all traces of Sodium Hypochlorite then remove the label. The pack may then be re-used or recycled, and the label disposed of as solid waste.

14 TRANSPORT INFORMATION

HYPERSAT is classified as a Dangerous Good for Air, Sea, Road, and Rail Transport

Product Name: HYPERSTAT

Proper Shipping Name: HYPOCHLORITE SOLUTION

UN No: 1791

Hazchem: 2X

Class: 8

Packing Group: III

15 REGULATORY INFORMATION

HYPERSTAT does not trigger approved handler status in any quantities. If over 1000L is stored the site signage requirements are triggered.

HYPERSTAT is assigned to Cleaning Products (Corrosive) Group Standard 2017

The HSNO Approval Number for this Group Standard is HSR002526

The new GHS7 based HSNO Classifications for HYPERSTAT are:

Skin Corrosion Category 1C
Serious Eye Damage Category 1
Hazardous to the Aquatic Environment Chronic Category 2

These correspond with the superseded HSNO Classifications assigned to HYPERSTAT:

8.2 Category C - Substances that are corrosive to dermal tissue.
8.3 Category A - Substances that are corrosive to ocular tissue.
9.1 Category B Substances that are ecotoxic in the aquatic environment or are otherwise designed for biocidal action.

16 OTHER INFORMATION

Prepared on 23rd September 2023

Abbreviations

ACGIH	**The American Conference of Governmental Industrial Hygienists, Inc.**
AIHA	**American Industrial Hygiene Association**
AS/NZS	**Australian/New Zealand Standard**
C	**Celsius, a measure of temperature**
CAS	**Chemical Abstract Services**
EPA	**Is New Zealand's Environmental Protection Authority**
GHS	**Globally Harmonised System**
LEL	**Lower Explosion Limit**
LC50	**Is the concentration which kills half of the test animals under controlled conditions. This value applies to vapours, dusts, mists and gases.**
LCLo	**Is the lowest concentration of a material in air reported to have caused the death of animals or humans. The exposure may be acute or chronic. This is also called the lowest concentration causing death, lowest detected lethal concentration, and lethal concentration low. LCLo is closely related to the LC50 value which is the concentration which kills half of the test animals under controlled conditions. This value applies to vapours, dusts, mists and gases. Solids and liquids use the closely related LDLo value for routes other than inhalation.**
LD50	**Is the dose which kills half of the test animals by ingestion.**
LDLo	**Is the lowest dose of a material in reported to have caused the death of animals or humans. The exposure may be acute or chronic. This is also called the lowest dose causing death, lowest detected lethal concentration, and lethal dose low.**
PEL	**Permissible Exposure Limit is the maximum amount or concentration of a chemical that a worker may be exposed to under OSHA regulations.**
SDS	**Safety Data Sheet, the new term for MSDS or Material Safety Data Sheet.**
STEL	**A Short Term Exposure Limit (is defined by ACGIH as the concentration to which workers can be exposed continuously for a short period of time without suffering from: irritation, chronic or irreversible tissue damage narcosis of sufficient degree to increase the likelihood of accidental injury, impair self-rescue or materially reduce work efficiency.**
TWA	**Time-Weighted Average**
UEL	**Upper Explosion Limit**

UN **United Nations**
WEEL **Workplace Environmental Exposure Levels**

End of SDS