SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	**Sodium Hypochlorite**
Other Identifier:	Liquid chlorine, sodium hypochlorite (12.5 %)
Recommended Use:	Pool sanitiser
Supplier: **ABN:**	Big Bubble 51 290 656 636
Street Address:	18 Elliott Street Midvale Western Australia
Telephone Number:	+61 08 9274 1992
Poisons Information Centre:	**131 126 Australia**

2. HAZARDS IDENTIFICATION

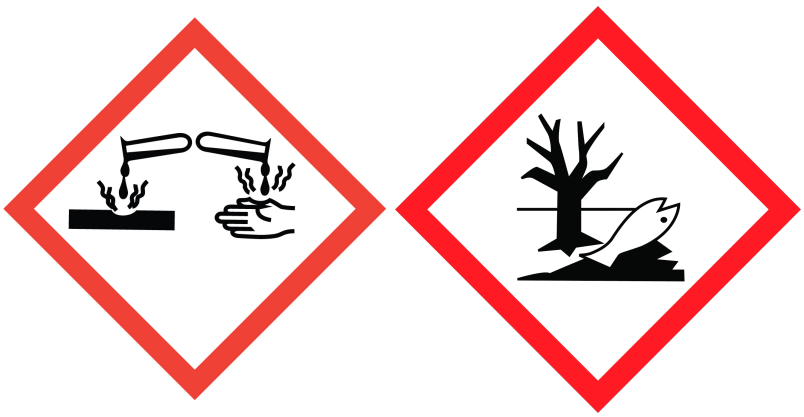
Road and Rail; Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; DANGEROUS GOODS.

Globally Harmonised System

Hazard Classification
Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Hazard Categories	Corrosive to metals – Category 1 Hazardous to aquatic environment (Chronic) – Category 1 Serious eye damage/corrosion – Category 1 Skin corrosion/irritation – Category 1B

Pictogram



Name of pictogram	Corrosion, Environment
Signal Word	**Danger**

Hazard Statements	**H290** May be corrosive to metals. **H314** Causes severe skin burns and eye damage. **H410** Very toxic to aquatic life with long lasting effects. **AUH031** Contact with acid liberates toxic gases.
Precautionary Statement	
Prevention	**P260** Do not breathe mist/vapours/spray. **P264** Wash all exposed external body areas thoroughly after handling.
Response	**P301 + P330 + P331** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. **P303 + P361 + P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Storage	**P405** Store locked up.
Disposal	**P501** Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulations.
Poisons Schedule:	**S5**

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion
Sodium hypochlorite	7681-52-9	10 – 30 %
Sodium hydroxide	1310-73-2	<1 %
Ingredients determined not to be hazardous		Balance %

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once.

Ingestion:	IF SWALLOWED: For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. Do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left-side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness, i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.
Eye Contact:	IF IN EYES: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure irrigation of the eye by keeping eyelids apart and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be done by skilled personnel.

Skin Contact:	IF ON SKIN: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital or doctor.
Inhalation:	IF INHALED: Remove from contaminated area. Lay patient down. Keep warm and rested. Protheses such as false teeth which may block airway should be removed where possible prior to initiating first aid procedures. If patient is not breathing, apply artificial respiration, preferably with a demand valve resuscitator, bag-valve mask device or pocket mask as trained. Perform CPR if necessary. Transport to hospital or doctor. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Reaction may be delayed up to 24 hours after exposure. Affected individuals need complete rest and must be kept under medical observation.
Medical attention and special treatment:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

General	If safe to do so, move undamaged containers from fire area. Cool containers until well after fire is out. Dike fire control water for later disposal.
Flammability Conditions	Not considered a significant fire risk however containers may burn.
Suitable Extinguishing Media:	Water spray or fog, foam.
Fire and Explosion Hazards	Non-combustible.
Hazardous combustion products:	May evolve toxic and/or corrosive gases (Chlorine, hydrogen chloride) when heated to decomposition.
Precautions for fire fighters and special protective equipment:	Wear full body protective clothing with breathing apparatus.

Auto Ignition temperature:	No Data Available
Decomposition Temperature:	No Data Available
Flammability:	No Data Available
Flash Point:	No Data Available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Ensure adequate ventilation. Eliminate all sources of ignition. Do not touch or walk through spilled material. Avoid breathing mists and contact with eyes, skin, and clothing.
Protective equipment:	Wear personal protective equipment as required (see SECTION 8).
Emergency procedures:	Stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel and move upwind.
Environmental Precautions:	Prevent entry into drains and waterways. If contamination of sewers or waterways occurs, inform the local water and waste management authorities in accordance with local regulations.
Methods and materials for Containment and clean up:	If possible, contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations (see SECTION 13).

7. HANDLING AND STORAGE

This material must be stored, maintained and used in accordance with the relevant regulations.

Conditions for safe storage:	Keep in the original container. Store in a cool, dry, well-ventilated area away from sources of ignition, foodstuffs, clothing, and incompatible materials (see SECTION 10). Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Ensure that storage conditions comply with applicable local regulations and national regulations.
Precautions for safe handling:	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well-ventilated area. Keep containers sealed when not in use. Prevent the build-up of mists or vapours in the work atmosphere. Do not use near ignition sources. Do not pressurise, cut, heat, or weld containers as they may contain hazardous residues. Maintain high standards of personal hygiene. Use personal protective equipment as required (see SECTION 8).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure control measures:	Australia Exposure Standards – Sodium hydroxide – peak: 2 mg/m^3 Sodium hypochlorite – 10 mg/m^3
Biological Monitoring	No information available.
Engineering Controls	This substance should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.

Personal Protective Equipment	
Eye and Face	Chemical goggles, full face shield may be required for supplementary protection but never for primary protection of eyes.
Skin	Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber. When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
Respiratory	Wear respiratory protection. Wear a type B-P filter of sufficient capacity (refer to AS/NZS 1715 & 1716).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Clear yellow
Odour:	Chlorine
pH:	>11.5
Solubility:	Miscible with water
Auto Ignition temperature:	No Data Available
Decomposition Temperature:	No Data Available
Evaporation Rate:	No Data Available
Flammability:	No Data Available
Flash Point:	No Data Available
Boiling Point:	>100˚C
Melting/Freezing Point:	-25˚C
Odour Threshold:	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Relative Density:	1.17 – 1.22
Upper Flammibility Limit	No Data Available
Lower Flammability Limit:	No Data Available
Explosive limits:	No Data Available
Vapour density:	No Data Available
Vapour pressure:	2.3 kPa

Viscosity:	No Data Available
Biopersistence:	No Data Available
Crystallinity:	No Data Available
Dustiness:	No Data Available
Particle size:	No Data Available
Redox potential:	No Data Available
Release of invisible flammable vapours and gases	No Data Available
Saturated Vapour Concentration	No Data Available

10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of storage and handling.
Conditions to avoid:	Heat, open flames, and other sources of ignition.
Incompatible materials:	Acids, organics, reducing agents (e.g. amine) and metallic powders
Hazardous decomposition products:	May evolve toxic and/or corrosive gases (Chlorine, hydrogen chloride) when heated to decomposition.
Hazardous reactions or Polymerisation:	Hazardous polymerisation will not occur.

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:	The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Accidental ingestion of the material may be damaging to the health of the individual.
Eye contact:	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. When applied to the eye(s) of animals, the material produces severe ocular lesions which are present 24 hours or more after instillation.

Skin contact: The material can produce chemical burns following direct contact with the skin. Skin contact will result in rapid drying, bleaching, leading to chemical burns on prolonged contact resulting in permanent injury.

Inhalation: Chlorine vapour is extremely irritating to the upper respiratory tract and lungs. Symptoms of exposure to chlorine include coughing, choking, breathing difficulty, chest pain, headache, vomiting, pulmonary oedema. Inhalation may cause lung congestion, bronchitis, and loss of consciousness.

Chronic: Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Reduced respiratory capacity may result from chronic low-level exposure to chlorine gas. Chronic poisoning may result in coughing, severe chest pains, sore throat, and haemoptysis (bloody sputum).

Acute Toxicity: Sodium hypochlorite – Oral – LD50: 5,800 mg/kg [Supplier SDS]
Sodium hypochlorite – Dermal – LD50: >10,000 mg/kg [Supplier SDS]

Carcinogenity: Not expected to be carcinogenic.

Mutagenicity: Not expected to be mutagenic.

Reproductive: Not expected to impair fertility.

12. ECOLOGICAL INFORMATION

Ecotoxicity Sodium hypochlorite – Crustacea – EC50 – 48h: 0.01 mg/L [Supplier SDS]
Sodium hypochlorite – Algae or other aquatic plants – EC50 – 72h: 0.018 mg/L [Supplier SDS]

Sodium hydroxide – Crustacea – EC50 – 48h: 34.59 – 47.13 mg/L [Supplier SDS]
Sodium hydroxide – Fish – LC50 – 96h: 144 – 267 mg/L [Supplier SDS]

Persistence and degradability: No information available.

Bioaccumulative potential: Sodium hydroxide – LOW (LogKOW = -3.88) [Supplier SDS]

Mobility: Sodium hydroxide – LOW (LogKOC = 14.3) [Supplier SDS]

13. DISPOSAL CONSIDERATIONS

Disposal methods: Dispose of in accordance with all local, state and federal regulations.
All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
Or refilled at Big Bubble in Midvale.

14. TRANSPORT INFORMATION

Road and Rail Transport	Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; DANGEROUS GOODS.
UN number:	1791
Proper shipping name;	HYPOCHLORITE SOLUTION
DG Class:	8
Packing group:	III
Environmental hazards for transport purposes:	Environmentally hazardous
Special Precaution for user:	Special provision - 223 Limited quantity – 5 L
Hazchem	2X

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 number:	1791
Proper shipping name;	HYPOCHLORITE SOLUTION
DG Class:	8
Packing group:	III
Environmental hazards for transport purposes:	Marine pollutant
Special Precaution for user:	EMS Number – F-A, S-B Special provisions – 223 274 900 Limited quantities – 5 L
Hazchem	2X

Air Transport
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN number:	1791
Proper shipping name;	HYPOCHLORITE SOLUTION
DG Class:	8
Packing group:	III

Environmental hazards for transport purposes:	Environmentally hazardous
Special Precaution for user:	Special provisions – A3 A803 Cargo only packaging instructions – 856 Cargo only maximum qty / pack – 60 L Passenger and cargo packing instructions – 852 Passenger and cargo maximum qty / pack – 5 L Passenger and cargo limited quantity packaging instructions – Y841 Passenger and cargo limited maximum Qty / Pack – 1 L
Hazchem	2X

15. REGULATORY INFORMATION

Poisons Schedule: S5

16. OTHER INFORMATION

Revision date: 31/05/2025
Reason for issue: Update SDS
Key/Legend:
< Less Than
> Greater Than
AICS Australian Inventory of Chemical Substances
atm Atmosphere
CAS Chemical Abstracts Service (Registry Number)
cm2 Square Centimetres
CO2 Carbon Dioxide
COD Chemical Oxygen Demand
deg C (**°C**) Degrees Celcius
g Grams
g/cm3 Grams per Cubic Centimetre
g/l Grams per Litre
HSNO Hazardous Substance and New Organism
IDLH Immediately Dangerous to Life and Health
immiscible Liquids are insoluable in each other.
inHg Inch of Mercury
inH2O Inch of Water
K Kelvin
kg Kilogram
kg/m3 Kilograms per Cubic Metre
LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
ltr or **L** Litre

m3 Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m3 Milligrams per Cubic Metre
Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre mmH2O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath and Safety Commission
OECD Organisation for Economic Co-operation and Development
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight

This material safety data sheet has been prepared by Midland Chemicals

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. No liability is accepted whether direct or indirect from its application since the conditions of final use are outside Midland Chemicals control. The end user is obliged to conform to relevant government regulations and/or patent laws applicable in their respective States of Countries.