

Section 1 – Identification of the Material and Supplier

Product Name: Evopure Liquid Pool Chlorine
Proper Shipping Name: HYPOCHLORITE SOLUTION
Product Use: Swimming pool sanitising agent.
Creation Date: 1/06/2020
This version issued: 1/06/2020 and is valid for 5 years from this date.

Details of Manufacturer:

Evolution Water & Lighting Solutions Pty Ltd
1/33 Hinkler Drive, Highland Park QLD 4211
Phone: +61 7 5565 0000
Email: enquiries@evolutionwls.com.au

Emergency Telephone Number: 000

Poisons Information Centre: 131 126 in Australia, 0800 764 766 in New Zealand

Section 2 – Hazards Identification

Hazard Classification of Substance

Classified as hazardous according to criteria of Safework Australia;

HAZARDOUS SUBSTANCE

Classified as dangerous according to criteria of ADG Code.

SUSMP Classification: S5 - CAUTION

GHS Signal word: DANGER



HAZARD CATEGORY

Skin Corrosion - Sub-category 1C
Eye Damage - Category 1
Acute Aquatic Toxicity - Category 1

HAZARD STATEMENTS

H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.

PRECAUTIONARY STATEMENTS

PREVENTION

P260 Do not breathe dust / fume / gas / mist / vapours / spray.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

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/shower.
P363 Wash contaminated clothing before re-use.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391 Collect spillage.

STORAGE

P405 Store locked up.

DISPOSAL

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

OTHER HAZARDS

AUH031 Contact with acids liberates toxic gas.

Section 3 – Composition/Information on Ingredients

Ingredients

Chemical Entity	CAS Number	Proportion	Hazard Codes
Water	7732-18-5	>60%	-
Sodium hypochlorite	7681-52-9	10-<30%	H314 H400
Sodium hydroxide	1310-73-2	<1%	H290 H314 H318

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible. If the sum of ingredients is less than 100%, the material consists of further ingredients determined not to be hazardous or below their cut-off limits.

Section 4 – First Aid Measures

General Information: You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 131 126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact: If spilt on large areas of skin or hair, immediately drench with running water and remove clothing. Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor.

Eye Contact: Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre. Continue to wash with large amounts of water until medical help is available.

Ingestion: Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed: Treat symptomatically. Can cause corneal burns. Delayed pulmonary oedema may result.

Section 5 – Fire Fighting Measures

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

Specific hazards arising from the substance or mixture: Non-combustible material.

Special Protective Precautions & Equipment for Fire Fighters: Decomposes on heating emitting toxic fumes, including those of chlorine. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

Hazchem Code: 2X

Section 6 – Accidental Release Measures

Emergency Procedures / Environmental Precautions: Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal Precautions / Protective Equipment / Methods & Materials for Containment & Cleaning Up: Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. After cleaning, flush away any residual traces with water.

Section 7 – Handling and Storage

Precautions for Safe Handling: Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep out of reach of children.

Conditions for Safe Storage: Store in cool place and out of direct sunlight. Store away from foodstuffs. Store away from acids. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

Section 8 – Exposure Controls and Personal Protection

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Chlorine: Peak Limitation = 3 mg/m³ (1 ppm)

Sodium hydroxide: Peak Limitation = 2 mg/m³

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

Peak Limitation - a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering Controls: Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. If inhalation risk exists: Use with local exhaust ventilation or while wearing air supplied mask.

Keep containers closed when not in use.

Personal Protection: The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS.



Wear overalls, chemical goggles, face shield, elbow-length impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If determined by a risk assessment an inhalation risk exists, wear an air supplied respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Section 9 – Physical and Chemical Properties

Physical state:	Liquid
Colour:	Pale Yellow - Green
Odour:	Chlorine
Solubility:	Miscible in water.
Specific Gravity:	1.2 @20°C
Relative Vapour Density (air=1):	Not available
Vapour Pressure (20 °C):	Not available
Flash Point (°C):	Not applicable
Flammability Limits (%):	Not applicable
Autoignition Temperature (°C):	Not available
Boiling Point/Range (°C):	Not available
pH:	12.5 (1% w/w)

Section 10 – Stability and Reactivity

Reactivity: Contact with acids liberates toxic gas.

Chemical Stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. The amount of available chlorine diminishes over time.

Possibility of hazardous reactions: Hazardous polymerisation will not occur. Reacts exothermically with acids. Reacts with ammonia, amines and ammonium salts to product chloramines. Decomposes on heating to produce chlorine gas.

Conditions to avoid: Avoid contact with foodstuffs. Avoid exposure to heat, sources of ignition, and open flame. Avoid exposure to light. Avoid contact with other chemicals. Avoid contact with acids.

Incompatible materials: Incompatible with acids, metals, metal salts, peroxides, reducing agents, and ethylene diamine tetraacetic acid. Incompatible with ammonia and ammonium compounds such as amines and ammonium salts.

Hazardous decomposition products: Chlorine.

Section 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:

Symptoms of Exposure:

Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye Contact: A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Skin Contact: Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

Inhalation: Breathing in mists or aerosols may produce respiratory irritation. Delayed (up to 48 hours) fluid build up in the lungs may occur.

Acute toxicity: No LD50 data available for the product. For the constituent

SODIUM HYPOCHLORITE:

Oral LD50 (mice): 5800 mg/kg

Serious eye damage/irritation: Moderate irritant (rabbit). Standard Draize test

Chronic effects: No information available for the product.

Section 12 – Ecological Information

Ecotoxicity: Avoid contaminating waterways.

Persistence and Degradability: This material is biodegradable.

Aquatic Toxicity: Very toxic to aquatic organisms.

48hr LC50 (fish): 0.07 - 5.9 mg/L.

Section 13 – Disposal Considerations

Disposal Methods: Refer to Waste Management Authority. Dispose of material through a licensed waste contractor. Decontamination and destruction of containers should be considered.

Special Precautions for Landfill or Incineration: Consult your state Land Waste Management Authority for more information.

Section 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
Transport Hazard Class/s: 8 Corrosive
Packing Group: III
UN Proper Shipping Name: HYPOCHLORITE SOLUTION
Technical name:
Hazchem Code: 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
Transport Hazard Class/s: 8 Corrosive
Packing Group: III
UN Proper Shipping Name: HYPOCHLORITE SOLUTION
Technical name:
Hazchem Code: 2X
IMDG EMS Fire: F-A
IMDG EMS SPILL: S-B

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
Transport Hazard Class/s: 8 Corrosive
Packing Group: III
UN Proper Shipping Name: HYPOCHLORITE SOLUTION
Technical name:

Section 15 – Regulatory Information

Classification: This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

Classification of the Substance or Mixture:
Skin corrosion – Sub-category 1C
Eye Damage - Category 1
Acute Aquatic Toxicity - Category 1

Hazard Statements:

H314 Causes severe skin burns and eye damage.
H400 - Very toxic to aquatic life.

Poisons Schedule (SUSMP): 5 CAUTION

AICS: All ingredients are on the Australian Inventory of Chemical Substances.

Section 16 – Other Information

This SDS contains only safety-related information. For other data see product literature.

Contact Person / Point:

FOR EMERGENCIES ONLY CONTACT: Australia: 000
POISONS INFORMATION CENTRE: Australia 131126
New Zealand 0800 764 766

Acronyms:

ADG Australian Code for the Transport of Dangerous Goods by Road and Rail
ACGIH American Conference of Governmental Industrial Hygienists
ASCC Australian Safety and Compensation Council
Carcinogen Category Number 1. Established human carcinogen
 2. Probably human carcinogen
 3. Substances suspected of having carcinogenic potential
Code AICS Australian Inventory of Chemical Substances
CAS number Chemical Abstracts Service Registry Number
EPG Emergency Procedure Guide (superseded by IERG)
Hazchem Code Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IERG HB 76-2004 Dangerous goods - Initial Emergency Response Guide
IMDG International Maritime Dangerous Goods. A uniform code for transport of dangerous goods at sea.
LEL lower flammable (explosive) limits in air;
LD₅₀ Lethal Dose sufficient to kill 50% of test population
NIOSH National Institute for Occupational Safety and Health The United States federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness.
NOAEL No Observed Adverse Effect Level
NOEL No Observable Effect Level
NOHSC National Occupational Health and Safety Commission
NTP National Toxicology Program (USA)
PEL Permissible Exposure Limit
RTECS Registry of Toxic Effects of Chemical Substances (Symyx Technologies')
TCLO Toxic Concentration Low
TDLO Toxic Dose Low : lowest dosage per unit of bodyweight (typically stated in milligrams per kilogram) of a substance known to have produced signs of toxicity in a particular animal species.
TLV Threshold Limit Value (ACGIH):The time weighted average used to describe exposure which is harmless to most of the population when exposed 8 hours per day, 40 hours per week.
TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.
 These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Poisons Information Centre: 131 126 in Australia. 0800 764 766 in New Zealand

SAFEWORK	Independent statutory agency with primary responsibility to improve occupational health and safety and workers' compensation arrangements across Australia.
STEL	(Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UEL	upper flammable (explosive) limits in air;
UN Number	United Nations Number

Sources for data.	Safety Data Sheets from Suppliers Hazardous Substances Information System (HSIS)– ASCC Australia (on-line) GHS (Globally Harmonised System of Substance Classification & Labelling) REACH (European Chemical Substance Information System) ADG Code 7th Edition SUSMP No 13
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Disclaimer:

This SDS 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. Since Evolution Water and Lighting Solutions Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact Evolution Water and Lighting Solutions Pty Ltd at the contact details on page 1. Evolution Water and Lighting Solutions Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request. Evolution Water and Lighting Solutions Pty Ltd however makes no warranty whatsoever, expressed, implied or of merchantability regarding the accuracy of such data or the results to be obtained from the use thereof and assumes no responsibility for injury to buyer or third persons or for any damage to property, Buyer assumes all risks.