

Section 1 – Identification of the Material and Supplier

GHS Identified: Hydrochloric Acid $\geq 20\%$
Product Name: Evopure Pool Acid
Other Name: Hydrochloric Acid 34%
Proper Shipping Name: Hydrochloric Acid
Product Use: For lowering the pH level in swimming pool water.
Creation Date: 1/01/2018
This version issued: 1/01/2023 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.

Classified as dangerous according to criteria of ADG Code.

SUSMP Classification: S6 - POISON

GHS Signal word: DANGER

Corrosive to Metals - Category 1
Skin Corrosion - Sub-category 1B
Eye Damage - Category 1
Specific target organ toxicity (single exposure) - Category 3



HAZARD STATEMENTS:

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

GENERAL

P101 If medical advice is needed, have product container or label at hand
P102 Keep out of reach of children
P103 Read label before use

PREVENTION

P234 Keep only in original container.
P260 Do not breathe mist / vapours / spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
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.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER or doctor/physician.
 P390 Absorb spillage to prevent material damage.

STORAGE

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P406 Store in corrosive resistant container with a resistant inner liner.

DISPOSAL

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

Section 3 – Composition/Information on Ingredients

Ingredients

Chemical Entity	CAS Number	Proportion	GHS Classification
Hydrogen Chloride	7647-01-0	>=20%	H335 H314
Water	7732-18-5	To 100%	

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

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: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes. 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.

Advice to Doctor: Treat symptomatically. Can cause corneal burns.

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).

Hazards from Combustion Productions: Non-combustible material.

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

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products of decomposition. Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. If safe to do so, remove containers from the path of fire.

Hazchem Code: 2R

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). Neutralise with lime or soda ash. Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

Section 7 – Handling and Storage

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

Precautions for Safe Handling: Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep out of reach of children. Always add the acid to water, never the reverse.

Conditions for Safe Storage: Store in a cool, dry, well ventilated place. Store away from incompatible materials described in Section 10. Store away from foodstuffs. Do not store in aluminium containers. Do not store in galvanised containers. Keep containers closed when not in use - check regularly for leaks.

Section 8 – Exposure Controls and Personal Protection

National Exposure Standards: No value assigned for this specific material by Safe Work Australia.

However, Workplace Exposure Standard(s) for constituent(s):

Hydrogen chloride: Peak Limitation = 7.5 mg/m³ (5 ppm)

Detectable odour at < 5ppm. Respiratory and mucous membrane irritant > 35ppm.

Engineering Controls: Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Personal Protection: Avoid unnecessary contact as good work practice. Wash contaminated clothing and protective equipment before storing and re-use. Wash hands before eating, smoking or using the toilet.



Respiratory Protection: If inhalation risk exists wear acid mist respirator. Use judgment. For assistance in selecting suitable equipment consult AS/NZ1715.

Eye Protection: Eye protective measures are normally necessary, and are suggested when using this product. Consult AS1336 and AS/NZ1337

Protective Gloves: Rubber, PVC or other protective gloves are necessary, and desirable, especially if product is being used frequently or for lengthy periods. Consult AS2161 for guidance.

Clothing: Clean overalls should be worn, preferably with an apron. Consult AS2919 for clothing guidance.

Safety Footwear: Wearing safety boots is advisory. Consult AS/NZ 2210 for advice on Occupational Protective Footwear.

Section 9 – Physical and Chemical Properties

Appearance:	Clear, colourless to slightly yellow liquid.
Odour:	Pungent Odour.
Flammability:	Product is not flammable.
Melting Point:	Not applicable.
Boiling Point:	100°C.
Flash Point:	NA
Vapour Pressure:	0.13 kpa @730°C
Volatiles:	100%
Vapour Density:	1.26
pH 1% Aqueous Solution:	< 1.0
Specific Gravity:	1.10-1.198
Solubility in Water:	Soluble in water.

Section 10 – Stability and Reactivity

Reactivity: Reacts with alkalis.

Chemical Stability: Corrosive to many metals with the liberation of extremely flammable hydrogen gas.

Conditions to Avoid: Avoid contact with foodstuffs.

Incompatible Materials: Incompatible with alkalis , oxidising agents , sodium hypochlorite , cyanides , and many metals.

Hazardous Decomposition Products: Hydrogen chloride.

Hazardous Reactions: Reacts with oxidising agents and sodium hypochlorite liberating toxic chlorine gas.

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: Considered to be harmful by all exposure routes. Contamination of eyes can result in permanent injury.

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 will produce respiratory irritation.

Acute: Exposure to high concentrations of the vapour or the acid as a mist may lead to lung damage including pulmonary oedema and emphysema. May result in dental discolouration and erosion and ulceration of the nose and mouth.

Acute toxicity:	No LD50 data available for the product. However, for constituent(s) HYDROGEN CHLORIDE: Oral LD50 (rabbit): 900 mg/kg Inhalation LC50 (rat): 3124 ppm/1h.
Skin corrosion/irritation:	corrosive

Serious eye damage/irritation:	corrosive
Respiratory or skin sensitisation:	Not expected to be a sensitiser.
Germ cell mutagenicity:	Not expected to be mutagenic.
Carcinogenicity:	Not expected to be carcinogenic.
Reproductive toxicity:	Not expected to impair fertility.
Specific Target Organ Toxicity (STOT) – single exposure:	No data
Specific Target Organ Toxicity (STOT) – repeated exposure:	Repeated exposure to low levels of hydrochloric acid may produce discolouration and erosion of teeth and ulceration of the nasal passages.
Aspiration hazard:	HAZARD

Section 12 – Ecological Information

Ecotoxicity: Avoid contaminating waterways, toxic to aquatic life.

Acute Toxicity: No data available.

Chronic Toxicity: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Section 13 – Disposal Considerations

Disposal Methods and Containers: 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: 1789
 Transport Hazard Class/s: 8 Corrosive
 Packing Group: II
 UN Proper Shipping Name: Hydrochloric Acid
 Hazchem Code: 2R
 IERG Number: 40

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: 1789
 Transport Hazard Class/s: 8 Corrosive
 Packing Group: II
 UN Proper Shipping Name: Hydrochloric Acid
 Hazchem Code: F-A
 IERG Number: 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: 1789
 Transport Hazard Class/s: 8 Corrosive

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Packing Group: II
UN Proper Shipping Name: Hydrochloric Acid
Hazchem Code: F-A
IERG Number: S-B

Section 15 – Regulatory Information

Poison Schedule: 6

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

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.
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 11
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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.