SAFETY DATA SHEET

HYDROCHLORIC ACID

Infosafe No.: HXPZL
ISSUED Date : 16/10/2023
ISSUED by: Zodiac Group Australia Pty Ltd

Section 1 - Identification

Product Identifier
HYDROCHLORIC ACID

Company Name
Zodiac Group Australia Pty Ltd

Address
219 Woodpark Road Smithfield
NSW 2164 Australia

Telephone/Fax Number
Tel: 1300 763 021 (office hours)

Emergency Phone Number
Poisons Information Centre: 13 1126 for Australia and 0800 764 766 in New Zealand

Recommended use of the chemical and restrictions on use
Product Use: Decreases pH and total alkalinity in swimming pools and spas

Other Names

Name	Product Code
ZODIAC POOL ACID	WPQLA5
MURIATIC ACID	
SPIRIT OF SALT	
ZODIAC POOL ACID	WPQLA15
ZODIAC POOL ACID	Fluidra# X0048500
ZODIAC POOL ACID	WPQLA5
MURIATIC ACID	
HYDROCHLORIC ACID	
SPIRIT OF SALT	
ZODIAC POOL ACID	Fluidra# X0048500
ZODIAC POOL ACID	WPQLA15

Additional Information
Chemical nature: Hydrochloric acid solution

This version issued: October, 2023 and is valid for 5 years from this date.

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture
Skin corrosion - category 1B
Specific target organ toxicity (single exposure) - category 3

Signal Word (s)
DANGER

Hazard Statement (s)
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Pictogram (s)
Corrosion,Exclamation mark

Precautionary Statement – Prevention
P234 Keep only in original container.
P260 Do not breathe fumes, mists, vapours or spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash contacted areas thoroughly after handling.
P271 Use only outdoors or in a well ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing and eye or face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Precautionary Statement – Response
P362 Take off contaminated clothing and wash before reuse.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 If exposed or concerned: Get medical advice.
P337+P313 If eye irritation persists: Get medical advice.
P390 Absorb spillage to prevent material damage.

Precautionary Statement – Storage
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statement – Disposal
P501 If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

Other Information
ADG Classification: Class 8: Corrosive Substances.

Emergency Overview:
Physical Description & Colour: Clear to slightly yellow fuming liquid
Odour: Pungent odour
Major Health Hazards: causes severe skin burns and eye damage, irritating to respiratory system.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Hydrochloric acid	7647- 01- 0	30- 60 %
Other non hazardous ingredients	Secret	To 100%

Other Information
Ingredients: Hydrochloric acid
TWA (mg/m^3): 7.5
STEL (mg/m^3): Peak limitation

Ingredients: Other non hazardous ingredients
TWA (mg/m^3): not set
STEL (mg/m^3): not set

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

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

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 13 1126 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
If irritation occurs, contact a Poisons Information Centre, or call a doctor. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. In severe cases, symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Ingestion
If nausea or gastric upset develops, remove individual to rest area and monitor. If symptoms get worse or if individual becomes distressed, do NOT induce vomiting; contact the Poisons Information Centre or a doctor.

Skin
Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 20 minutes by the clock. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and obtain medical advice.

Eye
Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this MSDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. If irritation persists, repeat flushing. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.

Section 5 - Firefighting Measures

Suitable Extinguishing Media
In case of fire, use carbon dioxide, dry chemical, foam or water fog. Water fog or fine spray is the preferred medium for large fires. Aim to dilute the material with large quantities of water. If practical, contain diluted material and prevent from entering drains and water courses.

Specific Methods
If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

Specific hazards arising from the chemical
There is little risk of an explosion from this product if commercial quantities are involved in a fire.
Fire decomposition products from this product are likely to be toxic if inhaled. Take appropriate protective measures.

Hazchem Code
2R

Section 6 - Accidental Release Measures

Emergency Procedures
Accidental release: This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

Section 7 - Handling and Storage

Precautions for Safe Handling
Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Conditions for safe storage, including any incompatibilities
This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 2500kg or L of Dangerous Goods of Packaging Group II, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

Exposure Control Measures
The following Australian Standards will provide general advice regarding safety clothing and equipment:
Respiratory equipment: AS/NZS 1715, Protective Gloves: AS 2161, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS2210.

Occupational exposure limit values
SWA Exposure Limits:
Hydrochloric acid
TWA (mg/m^3): 7.5
STEL (mg/m^3): Peak limitation

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Engineering Controls
Ventilation: This product should only be used where there is ventilation that is adequate to keep exposure below the TWA levels. If necessary, use a fan.

Respiratory Protection
Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eye and Face Protection
Your eyes must be completely protected from this product by splash resistant goggles with face shield. All surrounding skin areas must be covered. Emergency eye wash facilities must also be available in an area close to where this product is being used.

Personal Protective Equipment
Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

Body Protection
It is essential that all skin areas are adequately covered by impermeable gloves, overalls, hair covering, apron and face shield. See below for suitable material types.
Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, nitrile, butyl rubber, neoprene, Teflon.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	**Appearance**	Clear to slightly yellow fuming liquid
Odour	Pungent odour	**Melting/Freezing Point**	No specific data. Liquid at normal temperatures.
Boiling Point	108.6°C	**Solubility in Water**	Miscible.
Specific Gravity	1.16 - 1.18	**pH**	<1

Vapour Pressure	2.3496 kPa at 20°C	**Relative Vapour Density (Air=1)**	No data.
Evaporation Rate	No data.	**Coefficient Water/Oil Distr.**	No data.
Odour Threshold	No data.	**Volatile Component**	No data.
Flash Point	Does not burn.	**Flammability**	Flammability Class: Does not burn.
Auto-Ignition Temperature	Not applicable - does not burn.	**Flammable Limits - Lower**	Does not burn.
Flammable Limits - Upper	Does not burn.	**Particle Characteristics**	Not applicable to liquids.

Other Information
Volatility: No data.

Section 10 - Stability and Reactivity

Reactivity
Inorganic acids react with inorganic and organic bases such as amines to form salts. They also react with many metals liberating hydrogen gas. These reactions are often rapid and typically liberate much heat. They can also decompose many organic materials such as esters, in a reaction called hydrolysis.

Conditions to Avoid
This product should be kept in a cool place, preferably below 30°C. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Keep isolated from combustible materials. Protect this product from light.

Incompatible Materials
Strong bases.

Hazardous Decomposition Products
Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Hazardous Polymerization
This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Toxicology Information
Target Organs: There is no data to hand indicating any particular target organs.

Classification of Hazardous Ingredients:
Ingredient: Hydrochloric Acid %
Health Hazard Statement Codes: H314, H335
Skin corrosion - category 1B
Specific target organ toxicity (single exposure) - category 3

Ingestion
Short Term Exposure: Significant oral exposure is considered to be unlikely. This product, while believed to be not harmful, is likely to cause headache and gastric disturbance such as nausea and vomiting if ingested in significant quantities. This product is unlikely to cause any irritation problems in the short or long term.
Long Term Exposure: No data for health effects associated with long term ingestion.

Inhalation
Short Term Exposure: Product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased.
Long Term Exposure: No data for health effects associated with long term inhalation.

Skin
Short Term Exposure: Contact with skin will result in severe irritation. Corrosive to skin, may cause skin burns. Symptoms may include extreme itchiness and reddening of contacted skin. Other symptoms such as blisters may also become evident, and may last long after exposure has ceased.
Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye
Short Term Exposure: Severely irritating to eyes. This product is corrosive to eyes. It will cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is quickly treated, permanent blindness and facial scarring is likely.
Long Term Exposure: No data for health effects associated with long term eye exposure.

Carcinogenicity
Carcinogen Status:
SWA: No significant ingredient is classified as carcinogenic by SWA.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: Hydrochloric Acid is Class 3 - unclassifiable as to carcinogenicity to humans. See the IARC website for further details. A web address has not been provided as addresses frequently change.

Section 12 - Ecological Information

Ecological Information
Salts, acids and bases are typically diluted and neutralised when released to the environment in small quantities. However, until diluted or neutralised it will kill all aquatic organisms it contacts due to extreme pH.

Section 13 - Disposal Considerations

Waste Disposal
Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

Section 14 - Transport Information

ADG U.N. Number
1789

ADG Proper Shipping Name
HYDROCHLORIC ACID

ADG Transport Hazard Class
8

ADG Packing Group
II

Hazchem Code
2R

IERG Number
40

IATA UN Number
1789

IATA Proper Shipping Name
HYDROCHLORIC ACID

IATA Transport Hazard Class
8

IATA Packing Group
II

IMDG UN Number
1789

IMDG Proper Shipping Name
HYDROCHLORIC ACID

IMDG Transport Hazard Class
8

IMDG Packing Group
II

Additional Information
ADG Code: 1789, HYDROCHLORIC ACID
Hazchem Code: 2R
Special Provisions: None allocated
Limited quantities: ADG 7 specifies a Limited Quantity value of 1 L for this class of product.
Dangerous Goods Class: Class 8: Corrosive Substances.
Packaging Group: II
Packaging Method: P001, IBC02

Class 8 Corrosive Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances where the Toxic Substances are cyanides and the Corrosives are acids), 7 (Radioactive Substances), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Poisonous Gases), 3 (Flammable liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 6 (Toxic Substances except where the Toxic Substances are cyanides and the Corrosives are acids) and 9 (Miscellaneous Dangerous Goods).

Section 15 - Regulatory Information

Regulatory Information
The following ingredient: Hydrochloric acid, is mentioned in the SUSMP.

Poisons Schedule
S6

Australian Inventory of Industrial Chemicals (AIIC)
All of the significant ingredients in this formulation are compliant with AICIS regulations.

Section 16 - Any Other Relevant Information

Other Information
Rev # E

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

Acronyms:
ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AIIC: Australian Inventory of Industrial Chemicals
SWA: Safe Work Australia, formerly ASCC and NOHSC
CAS number: Chemical Abstracts Service Registry Number
Hazchem Code: Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC: International Agency for Research on Cancer
NOS: Not otherwise specified
NTP: National Toxicology Program (USA)
SUSMP: Standard for the Uniform Scheduling of Medicines & Poisons
UN Number: United Nations Number

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” (July 2020) and GHS Revision 7

http://www.kilford.com.au/ Phone (02)8321 8866

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END OF SDS