SAFETY DATA SHEET

According to Safe Work Australia

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: HYDROCHLORIC ACID 28-32%

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use:
Laboratory reagent, acidifier, chemical intermediate and scale remover. Used to reduce pH in pool and bodies of water and to lesser extent reduce alkalinity.

Details of Manufacturer or Importer:
Sigma Companies Group Pty Ltd
228 Balcatta Road
Balcatta WA 6021

Phone Number: 08 9345 2233

Emergency telephone number: National Poison Information Centre: 13 11 26

2 . HAZARDS IDENTIFICATION

Hazardous Nature:
Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).


corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.



STOT SE 3 H335 May cause respiratory irritation.

Signal Word Danger

Hazard Statements
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary Statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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/doctor.
P321	Specific treatment (see on this label).
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

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

3 . COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:			
7647-01-0	Hydrochloric acid	Skin Corr. 1B, H314; STOT SE 3, H335	28-32%

4 . FIRST AID MEASURES

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.

Skin Contact:
In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek immediate medical attention.

Eye Contact:
In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.

Ingestion:
If swallowed, do not induce vomiting. Give water or milk to drink. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.
Information for Doctor:
Do not induce vomiting. Do not attempt gastric lavage. Do not attempt to neutralise the corrosive substance. Immediately dilute the corrosive substance by having the patient drink milk or water. If the trachea has been damaged tracheostamy may be required. For oesophageal burns begin broad-spectrum antibiotics and corticosteroid therapy. Intravenous fluids will be required if oesophageal or gastric damage prevents ingestion of liquids. Long-range therapy will be directed toward preventing or treating oesophageal scars and strictures.

Symptoms Caused by Exposure:
Inhalation: May cause irritation of the nose and throat, coughing and bronchitis, intense thirst, ulceration, lung tissue damage, chemical pneumonitis and pulmonary oedema. Effects may be delayed.
Skin Contact: May cause irritation, redness, pain, rash, dermatitis, blistering and severe burns and discolouration of the skin. Effects may be delayed.
Eye Contact: May cause irritation, lacrimation, pain, redness, conjunctivitis and corneal burns with possible permanent damage.
Ingestion: May cause burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea, ulceration, unconsciousness, convulsions and death.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide.

Specific Hazards Arising from the Chemical:
May evolve toxic gases (chlorides) when heated to decomposition.
May evolve flammable hydrogen gas when in contact with some metals.
Non flammable liquid.

Special Protective Equipment and Precautions for Fire Fighters:
When fighting a major fire wear self-contained breathing apparatus and protective equipment.

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6 . ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours or mists. Ensure adequate ventilation.

Environmental Precautions:
In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:
Stop leak if safe to do so and absorb spill with sodium bicarbonate or mixture of sodium carbonate and calcium hydroxide. Collect the spilled material and place into a suitable container for disposal.

7 . HANDLING AND STORAGE

Precautions for Safe Handling:
Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours or mists. Use only outdoors or in a well-ventilated area.
Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:
Store in a cool, dry and well ventilated area. Keep in original container tightly closed when not in use. Protect from heat, sparks, open flames and other ignition sources. Keep away from oxidising agents, alkalis, most metals, alcohols, acids, dinitroaniline, cyanides and sulphides. Protect from physical damage. Check regularly for leaks or spills.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:	
7647-01-0 Hydrochloric acid	
NES	Peak limitation: 7.5 mg/m³, 5 ppm

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

Respiratory Protection:
Use a Safe Work Australia approved air purifying or air-fed respirator if high airborne concentrations of the material are present and minimising exposure by ventilation is not possible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:
PVC, PVA, nitrile, neoprene, rubber or vinyl gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information.
When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.
Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

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Eye and Face Protection:
Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	
Form:	Liquid
Colour:	Colourless to slightly yellow
Odour:	Pungent
Odour Threshold:	Not determined.
pH-Value:	<1
Melting point/Melting range:	-20 °C
Initial Boiling Point/Boiling Range:	109 °C
Flash Point:	Not applicable
Flammability:	Product is not flammable.
Auto-ignition Temperature:	Not applicable
Decomposition Temperature:	Not determined.
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure:	Not applicable
Density:	Not determined.
Relative Density at 20 °C:	1.61
Vapour Density:	Not determined.
Evaporation Rate:	Not determined.
Solubility in Water:	Soluble in water
Solvent content:	
% Volatiles by Volume:	100%

10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Heat, sparks, open flames and other sources of ignition.

Incompatible Materials:
Oxidising agents, alkalis, most metals, alcohols, acids, dinitroaniline, cyanides and sulphides.

Hazardous Decomposition Products: May evolve toxic gases (chlorides) when heated to decomposition.

11 . TOXICOLOGICAL INFORMATION

Toxicity:

LD_{50}/LC_{50} Values Relevant for Classification:		
7647-01-0 Hydrochloric acid		
Oral	LD_{50}	900 mg/kg (rabbit)

Acute Health Effects
Inhalation:
May cause irritation of the nose and throat, coughing and bronchitis, intense thirst, ulceration, lung tissue damage, chemical pneumonitis and pulmonary oedema. Effects may be delayed.

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Skin:
May cause irritation, redness, pain, rash, dermatitis, blistering and severe burns and discolouration of the skin. Effects may be delayed.
Eye:
May cause irritation, lacrimation, pain, redness, conjunctivitis and corneal burns with possible permanent damage.
Ingestion:
May cause burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea, ulceration, unconsciousness, convulsions and death.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity:
Hydrochloric acid is classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure: May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:
Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: No information available

Existing Conditions Aggravated by Exposure: No information available

12 . ECOLOGICAL INFORMATION

Ecotoxicity: No information available

Aquatic toxicity: No information available

Persistence and Degradability: No information available

Bioaccumulative Potential: No information available

Mobility in Soil: No information available
Other adverse effects: No information available

13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

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

14 . TRANSPORT INFORMATION

UN Number **ADG, IMDG, IATA**	UN1789
Proper Shipping Name **ADG, IMDG, IATA**	HYDROCHLORIC ACID solution
Dangerous Goods Class **ADG Class:**	8 (C1) Corrosive substances.

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IMDG Class:	8 Corrosive substances.
Packing Group: **ADG, IMDG, IATA**	II
Marine pollutant:	No
EMS Number:	F-A,S-B
Hazchem Code:	2R
Special Provisions:	Not applicable
Limited Quantities:	1L
Packagings & IBCs - Packing Instruction:	P001, IBC02
Packagings & IBCs - Special Packing Provisions:	Not applicable
Portable Tanks & Bulk Containers - Instructions:	T8
Portable Tanks & Bulk Containers - Special Provisions:	TP2

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:	
7647-01-0	Hydrochloric acid
7732-18-5	Water

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 6

16 . OTHER INFORMATION

Date of Preparation or Last Revision: 01.06.2020

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations and acronyms:
ADG: Australian Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC_{50}: Lethal concentration, 50 percent
LD_{50}: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Disclaimer
This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011”
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