



SAFETY DATA SHEET

Revision date: 08-Aug-2024

Revision Number 3

Section 1: Identification

Product identifier

Product Name HYDROCHLORIC ACID >25% (NZ)
Product Code(s) 000000051942

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use Precursor for generation of chlorine dioxide gas used in water treatment.
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier

IXOM Operations Pty Ltd (Incorporated in Australia)
NZBN: 9429041465226
Street Address: 166 Totara Street
Mt Maunganui South
New Zealand

Telephone Number: +64 9 368 2700
Facsimile: +64 9 368 2710

Emergency telephone number

Emergency Telephone 0 800 734 607 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

Section 2: Hazard identification

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

Classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

GHS Classification

Corrosive to metals	Category 1
Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3

Label elements



Signal word
Danger

Hazard statements H290 - May be corrosive to metals
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H330 - Fatal if inhaled
H335 - May cause respiratory irritation

Precautionary Statements - Prevention

Keep out of reach of children.
Keep only in original container.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wash eyes thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/clothing and eye/face protection.
Wear respiratory protection.

Precautionary Statements - Response

Specific treatment is urgent (see First aid on this SDS).

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin

IF ON SKIN: Wash with plenty of water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Spill

Absorb spillage to prevent material damage.

Precautionary Statements - Storage

Store locked up.
Store in corrosion resistant container with a resistant inner liner.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

Other hazards which do not result in classification

No information available.

Section 3: Composition/information on ingredients

Chemical name	CAS No.	Weight-%
Hydrochloric acid	7647-01-0	>25%
Water	7732-18-5	to 100%

Section 4: First-aid measures

Description of first aid measures

General advice	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical attention.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms	Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Burning. Coughing and/ or wheezing. Difficulty in breathing.
Effects of Exposure	No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians	Can cause corneal burns. Treat symptomatically.
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Section 5: Fire-fighting measures

Hazchem code	2R
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Suitable Extinguishing Media

Suitable Extinguishing Media	Dry chemical, CO2, water spray or regular foam.
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Unsuitable extinguishing media	No information available.
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Specific hazards arising from the chemical

Specific hazards arising from the chemical	Corrosive hazard. Wear protective gloves/clothing and eye/face protection. The product causes burns of eyes, skin and mucous membranes.
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Special protective actions for fire-fighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Section 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Personal precautions Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Use personal protective equipment as required. Evacuate personnel to safe areas. Do not touch or walk through spilled material. Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Wear appropriate respirator when ventilation is inadequate.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Neutralise residues with lime or soda ash. After cleaning, flush away traces with water.

Precautions to prevent secondary hazards

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: Handling and storage**Precautions for safe handling**

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

General hygiene considerations Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from foodstuffs. Keep container closed when not in use.

Packaging materials Do not store in aluminium containers. Do not store in galvanized containers.

Incompatible materials Strong alkalis. Oxidizing agents. Cyanides. Metals. Sodium hypochlorite.

Section 8: Exposure controls/personal protection

Control parameters

Exposure Limits No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for constituents:.

Chemical name	New Zealand	Australia	ACGIH TLV	United Kingdom
Hydrochloric acid 7647-01-0	Ceiling: 5 ppm Ceiling: 7.5 mg/m ³	Peak: 5 ppm Peak: 7.5 mg/m ³	Ceiling: 2 ppm	TWA: 1 ppm TWA: 2 mg/m ³ STEL: 5 ppm STEL: 8 mg/m ³

Hydrogen chloride: Ceiling 5 ppm, 7.5 mg/m³

As published by the New Zealand Workplace Health & Safety Authority.

WES - Ceiling (Workplace Exposure Standard - Ceiling). A concentration that should not be exceeded during any part of the working day.

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.

Appropriate engineering controls

Engineering controls

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

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.

Individual protection measures, such as personal protective equipment

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, RUBBER BOOTS, AIR MASK , GLOVES (Long), APRON.



Eye/face protection

Tight sealing safety goggles. If splashes are likely to occur: Face protection shield.

Hand protection

Elbow-length impervious gloves.

Skin and body protection

Overalls. Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

	Boots.
Respiratory protection	If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
Environmental exposure controls	No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Color	Colourless to Slightly Yellow
Odor	Pungent
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	<1	
Melting point / freezing point	No data available	None known
Boiling point / boiling range	98°C (for 28% concentration)	None known
Flash point	Not applicable	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	Not applicable	
Lower flammability or explosive limits	Not applicable	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	ca. 1.06 (for 26% concentration)	
Water solubility	No data available	
Solubility(ies)	Miscible in water	None known
Partition coefficient	No data available	None known
Autoignition temperature	Not applicable	
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Particle characteristics

Section 10: Stability and reactivity

Reactivity

Reactivity Corrosive to metals. Reacts with strong alkalis.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions**Possibility of hazardous reactions** Reacts with oxidising agents and sodium hypochlorite liberating toxic chlorine gas.**Conditions to avoid****Conditions to avoid** Do not contaminate food or feed stuffs. Contact with foodstuffs.**Incompatible materials****Incompatible materials** Strong alkalis. Oxidizing agents. Cyanides. Metals. Sodium hypochlorite.**Hazardous decomposition products****Hazardous decomposition products** Hydrogen chloride.**Section 11: Toxicological information****Acute toxicity****Information on likely routes of exposure****Product Information** No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:**Inhalation** Irritating to respiratory system. Fatal if inhaled.**Eye contact** Causes serious eye damage.**Skin contact** Causes severe burns.**Ingestion** Can burn mouth, throat, and stomach.**Symptoms** Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Burning. Coughing and/ or wheezing. Difficulty in breathing.**Acute toxicity****Numerical measures of toxicity**

No information available

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrochloric acid	238 - 277 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 1.68 mg/L (Rat) 1 h
Water	> 90 mL/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Skin corrosion/irritation** Causes severe burns.**Serious eye damage/eye irritation** Causes serious eye damage.**Respiratory or skin sensitization** No information available.

Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	May cause respiratory irritation.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Chronic effects:	Repeated exposure to low levels of hydrochloric acid may produce discolouration and erosion of teeth and ulceration of the nasal passages.
Data used to identify the health effects	Refer to Section 16 for Key literature references and sources for data used to compile the SDS.

Section 12: Ecological information

Ecotoxicity

Aquatic ecotoxicity	Keep out of waterways.
Terrestrial ecotoxicity	There is no data for this product.
Persistence and degradability	No information available.

Bioaccumulative potential

Bioaccumulation	There is no data for this product.
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Mobility in soil

Mobility	No information available.
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Other adverse effects

No information available.

Section 13: Disposal considerations

Waste treatment methods

Waste from residues/unused	Dispose of product in packaging/container in a way that is consistent with the Hazardous
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products

Substances (Disposal) Notice 2017 and the Act, and Hazardous Substances (Amendments and Revocations) Notice 2020.
 Treat the chemical using a method that changes the characteristics or composition of the chemical so that the chemical is no longer a hazardous chemical; or export the chemical from New Zealand as waste.
 Class 6 and 8 chemicals – may be discharged into the environment if a tolerable exposure limit has been set for the substance (or a component of that chemical); and the discharge does not, after reasonable mixing, result in the concentration of the substance in an environmental medium exceeding the tolerable exposure limit. If there is not tolerable exposure limit for the substance, then it may only be discharged into the environment if the substance is very rapidly converted to substances that are not hazardous substances..

Contaminated packaging

For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from.
 Packages may only be reused or recycled if:
 - the substance has a physical hazard other than corrosive to metal, and has been treated to remove any residual contents of the hazardous substance;
 - or for substances that have a health or environmental hazard, or corrosive to metal, the contents of the residue in the package are below the threshold for the substance to be classified as hazardous in the Hazardous Substances (Hazard Classification) Notice 2020.

Section 14: Transport information

ROAD AND RAIL TRANSPORT Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

UN number or ID number 1789
Proper shipping name HYDROCHLORIC ACID
Transport hazard class(es) 8
Packing group II
Hazchem code 2R
IATA 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
UN proper shipping name HYDROCHLORIC ACID
Transport hazard class(es) 8
Packing group II

IMDG 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
UN proper shipping name HYDROCHLORIC ACID
Transport hazard class(es) 8
Packing group II
IMDG EMS Fire F-A
IMDG EMS Spill S-B
Marine pollutant Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 No information available

Special precautions for user
 Please refer to the applicable dangerous goods regulations for additional information

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

EPA New Zealand HSNO approval code or group standard

National regulations

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain explosives, vertebrate toxic agents and fumigants. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

Other Regulations

Approval Number: HSR001557.

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

NZIoC

All the constituents of this material are listed on the New Zealand Inventory of Chemicals.

TSCA

Contact supplier for inventory compliance status.

DSL/NDSL

Contact supplier for inventory compliance status.

EINECS/ELINCS

Contact supplier for inventory compliance status.

ENCS

Contact supplier for inventory compliance status.

IECSC

Contact supplier for inventory compliance status.

KECL

Contact supplier for inventory compliance status.

PICCS

Contact supplier for inventory compliance status.

AIIC

Contact supplier for inventory compliance status.

TCSI

Contact supplier for inventory compliance status.

Legend:

NZIoC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC- Australian Inventory of Industrial Chemicals

TCSI - Taiwan Chemical Substance Inventory

Section 16: Other information

Prepared By

This Safety Data Sheet has been prepared by IXOM Operations Pty Ltd (Toxicology and

Revision date: SDS Services).
08-Aug-2024
Reason(s) For Issue: 5 Yearly Revised Primary SDS

Revision Note:

***Indicates updated data since last publication.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend**

SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration
LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
**	Hazard Designation	+	Sensitizers
C	Carcinogen		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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 IXOM Operations 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 their IXOM representative or IXOM Operations Pty Ltd at the contact details on page 1.

IXOM Operations 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.

End of Safety Data Sheet