



SAFETY DATA SHEET

According to 29 CFR 1910.1200

HYDROCHLORIC ACID

Date of issue: September 01, 2023 Revision date: - Version: 1

SECTION 1.- IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Product form Liquid
Substance name Hydrochloric acid
CAS No. 7647-01-0
Formula HCl
Synonyms Not available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture Fertilizers

1.3 Details of the supplier of the safety data sheet

Química Pima, S.A. de C.V.
Del Cobre 20, Parque Industrial Hermosillo
Hermosillo, Sonora, México. C.P. 83297 Tel. 011 (662) 251-0010 / (662) 251-0316
ventas@qpima.com
www.qpima.com

1.4 Emergency telephone number

Emergency number CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

SECTION 2.- HAZARD IDENTIFICATION

2.1 GHS-US classification

May be corrosive to metals.	1	H290
Causes severe skin burns and eye damage.	1	H314
Causes serious eye damage.	1	H318
May cause respiratory irritation.	3	H335

2.2 Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal Word (GHS-US):

Danger

Hazard statement (GHS-US):

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary statements (GHS-US):

P234 Keep only in original container.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash your hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.



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P280 Wear protective gloves/protective clothing/eye protection/face protection.

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 [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep 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.

P310 Immediately call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

P403 Store in a well-ventilated place.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

P501 Dispose of contents/container in accordance with federal, state, and local regulations.

No data available

Not applicable

2.3 Other hazards

2.4 Unknown acute toxicity (GHS-US)

SECCIÓN 3.- COMPOSITION / INFORMATION OF INGREDIENTS

3.1 Substance

Name	Product identifier	%
Hydrochloric acid	(CAS No.) 7647-01-0	30 – 32

3.2 Mixture

Not applicable

SECCIÓN 4.- FIRST AID MEASURE

4.1 Description of first aid measure

First-aid measures general

Check vital signs. Unconscious: keep airways clear and provide breathing assistance. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform CPR. Conscious victim with breathing difficulty: semi-upright position. Victim in shock: lying on back with legs slightly elevated. Vomiting: prevent choking or aspiration. Avoid cooling by covering the victim (without heating). Continue monitoring the victim. Provide psychological support. Keep the victim calm, and avoid physical strain. Depending on the victim's condition: seek medical attention/hospital. Never give anything by mouth to an unconscious person. If feeling unwell, seek medical attention (if possible, show the label).

First-aid measures after eye contact

Flush thoroughly with plenty of water for at least 15 minutes and seek medical attention. Remove contact lenses if present and easily removable. Continue rinsing eyes during transport to a medical facility.

First-aid measures after skin contact

As a precautionary measure, thoroughly wash the exposed area for at least 15 minutes. Remove contaminated clothing. Wash contaminated clothing before reuse. Consult a physician.



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First-aid measures after inhalation

If symptoms such as irritation of the nose or throat are observed, take the person to fresh air. Seek medical attention if the condition does not improve.

First-aid measures after ingestion

Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Seek medical advice.

4.2 Most important

Symptoms/injuries after inhalation

Inhalation of dust can cause irritation of the throat and respiratory tract.

Symptoms/injuries after skin contact

It causes burns to the skin.

Symptoms/injuries after eye contact

It will cause severe burns (depending on the duration and amount of exposure).

Symptoms/injuries after ingestión

It will cause severe burns

Chronic symptoms

No data available.

4.3 Indications of any immediate medical attention and special treatment needed

No Data is available.

SECCIÓN 5.- FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing agents compatible with acid and appropriate for the burning material. Use water spray to keep exposed containers cool.

Unsuitable extinguishing media

No data available

5.2 Special hazard arising from the substance or mixture

Fire hazard

It releases flammable hydrogen gas when reacting with metals.

Explosion hazard

No data available

Reactivity

It releases flammable hydrogen gas when reacting with metals.

5.3 Advice for firefighters

Precautionary measures fire

In case of fire/heating: stand against the wind. If exposed to fire/heat consider evacuation. In case of fire and/or explosion, do not breathe vapors.

Firefighting instructions

Use standard fire-fighting procedures and consider the hazards of other materials involved.

Protection during firefighting

Use a self-contained breathing apparatus and full protective clothing.

SECCIÓN 6.- ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment

Use the recommended protective equipment in section 8.

Emergency procedures

Follow established emergency procedures. Only properly equipped, trained, and functional personnel should attempt to contain a leak. All other personnel should be evacuated from the danger area.

Measures in case of dust release

Avoid the formation of vapors/mist. In case of prolonged exposure and/or high concentrations of vapors in the air, use a half-face respirator, full-face respirator, or SCBA according to applicable regulations.

6.1.2 For emergency responders

Stop the leak if there is no risk. Do not touch spilled material. Use a water spray to control vapors. Avoid entry into sewers, basements, or confined areas; build a barrier if necessary. Request assistance for disposal. Neutralize the residue with a diluted solution of sodium carbonate. Ensure vapor is not present at a concentration level above TLV.



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6.2 Environmental precautions

Use closed systems when possible. Provide local exhaust ventilation where dust or fumes may be generated. Avoid spillage into drains, watercourses, or onto the ground.

6.3 Methods and material for containment and cleaning up

Method for containment

For small spills: Dilute with water and clean, or absorb with an inert dry material and place it in an appropriate container. For large spills: Use a water spray to control generated vapors. Build a barrier if necessary. Neutralize the residue with a diluted solution of sodium carbonate.

Method for cleaning up

Neutralize the residue with a diluted solution of sodium carbonate.

6.4 Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection

SECTION 7.- HANDLING AND STORAGE

7.1 Precautions for safe handling

Precautions for safe handling

Use appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Observe good industrial hygiene practices. Do not empty into drains. Be cautious when mixing with water; NEVER add water to acid, ALWAYS add acid to water while stirring to prevent the release of heat, vapor, and fumes.

Hygiene measures

Do not drink, eat, or smoke in the workplace. Always wash your hands after handling the product. Do not eat, drink, or smoke when using this product. Use local exhaust ventilation to keep airborne dust concentrations below permissible exposure levels. Wash hands before breaks and at the end of the workday. Remove and launder contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a well-ventilated area. Store away from incompatible materials. Keep containers tightly closed in a clean, cool, well-ventilated area. Keep away from direct sunlight.

Incompatible products

Strong reducing agents.

Heat-ignition

It releases flammable hydrogen gas when reacting with metals.

Storage area

Store in a clean, cool, open, or well-ventilated area. Keep away from incompatible, flammable, or combustible materials. Keep away from direct sunlight.

Special rules on packaging

Store in a tightly sealed, dry, clean, and properly labeled container. Comply with applicable regulatory requirements. Secure fragile packaging in sturdy containers.

Packaging materials

No data available

7.3 Specific end use(s)

No additional information is available

SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric acid 7647-01-0	No data available	5 ppm 7.59 mg/m ³	No data available

8.2 Exposure controls

Appropriate engineering controls

Establishments storing or using this material should be equipped with eye wash stations and safety showers. Avoid the accumulation of vapors in the air.



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Personal protective equipment	Safety goggles, full-face respirator with organic vapor cartridges, gloves, protective clothing/suit/boots.
Material for protective clothing	Neoprene, butyl rubber, or PVC are recommended.
Hand protection	Use appropriate protective gloves to prevent skin exposure. Neoprene, butyl rubber, or PVC are recommended. Do not use materials made of natural fibers.
Eye protection	Wear snug-fitting safety goggles. Use a face shield (minimum of 8 inches). Use eye protection equipment tested and approved under appropriate government standards, such as NIOSH (US) or EN 166 (EU).
Skin and body protection	Wear suitable protective clothing to minimize skin contact. Neoprene, butyl rubber, or PVC are recommended. Do not use materials made of natural fibers.
Respiratory protection	When risk assessment shows that respirators are appropriate, use a full-face respirator with organic vapor cartridges as a backup to existing engineering controls. If the respirator is the sole means of protection, use a self-contained breathing apparatus (SCBA). Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Environmental exposure controls	Avoid release to the environment.

SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless to slightly yellow liquid
Odor	Pungent (irritant/strong)
Color	Colorless to slightly yellow
Molecular mass	36.46 g/mol
Odor threshold	0.3 ppm (It can cause olfactory fatigue)
pH	< 1.0
pH solution	No data available
Relative evaporation rate (butyl acetate = 1)	No data available
Melting/Freezing point	-30 °C (-22 °F)
Boiling point	> 100 °C (> 212 °F)
Flash point	No data available
Self-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Non-flammable
Vapor pressure	84 mmHg
Relative vapor density at 20 °C	1.267
Relative density	1.15 – 1.16 (20 °C)
Solubility	100% in water
Log Pow	No data available
Log Kow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	No data available



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Oxidizing properties
Explosive limits

Oxidizing material
No data available

9.2 Other information

No additional information is available

SECTION 10.- STABILITY AND REACTIVITY

10.1 Reactivity	This material is stable under normal handling and storage conditions.
10.2 Chemical stability	This material is stable under normal handling and storage conditions.
10.3 Possibility of hazardous reactions	This material is stable under normal handling and storage conditions.
10.4 Conditions to avoid	Incompatible materials, metals, excessive heat, bases.
10.5 Incompatible materials	Bases, amines, metals, permanganates, fluorine, metal acetylides, and hexalithium disilicide.
10.6 Hazardous decomposition products	Hydrogen chloride, chlorine, gaseous hydrogen.

SECTION 11.- TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure	Skin and eyes contact, inhalation, and ingestion.
Acute toxicity	Will cause burns (depending on exposure time and amount).
Skin corrosión/irritation	Causes burns to the skin.
Serious eye damage/irritation	Causes eye burns.
Respiratory or skin sensitization	The vapors and mist will irritate the throat and respiratory system and cause coughing.
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target toxicity (single exposure)	Inhalation toxicity is the main route of exposure.
Specific target toxicity (repeat exposure)	No data available
Aspiration hazard	After inhaling vapors, the respiratory tract may become irritated.

Name	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀ inhalation
Hydrochloric acid	No data available	5010 mg/kg (rabbit)	3124 ppm (1 h, rat)

SECTION 12.- ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology – General	No data available
Ecology – Air	No data available
Ecology – Water	Due to the low pH of this product, significant ecotoxicity is expected upon exposure to aquatic organisms and aquatic systems. This material is toxic to fish and aquatic organisms. Most aquatic species do not tolerate a pH lower than 5.5 for an extended period. EC ₅₀ <i>Gambusia affinis</i> (282 mg/l, 96 h). EC ₅₀ Eel (3.6 mg/l, 48 h)



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12.2 Persistence and degradability

It is not biodegradable. Hydrochloric acid will likely be neutralized to chloride by the alkalinity present in the natural environment.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

Hydrochloric acid will be neutralized by natural alkalinity. The acid will penetrate the soil, dissolving some soil material, and then neutralize.

12.5 Other adverse effects

Other information

SECCIÓN 13.- INFORMACIÓN RELATIVA A LA ELIMINACIÓN DE LOS PRODUCTOS

13.1 Waste treatment methods

Waste treatment methods

Collect and reclaim or dispose in sealed containers at an authorized waste disposal site. This material, if not neutralized, must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water sources. Do not contaminate ponds, waterways, or ditches with chemical containers or used ones. Dispose of contents/containers following local/regional/national/international regulations.

Waste disposal recommendations

Dispose of waste material following local, regional, national, and international regulations.

SECTION 14.- TRANSPORT INFORMATION

14.1 UN Number

1789

14.2 UN proper shipping name

HYDROCHLORIC ACID

14.3 Class of hazards in transportation

8

14.4 Packaging group

II

14.3 Additional information



Other information

No supplementary information is available.

Overland transport

No additional information is available.

Transport by sea

No additional information is available.

Air transport

No additional information is available.

SECTION 15.- REGULATORY INFORMATION

International inventories

TSCA Hydrochloric acid CAS 7647-01-0

Abbreviations

TSCA – Toxic Substances Control Act Inventory Section 8(b).

DSL/NDSL - Domestic Substance List/Non-Domestic Substance List.

US Federal Regulations: This product does not contain chemicals that are subject to the reporting requirements of the Emergency Planning and Community Right-to-Know Act and Title 40 of the Code of Federal Regulations, Part 372.



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SARA 311/312 Categories.

Acute Health Hazard Yes Chronic Health Hazard No Fire Hazard No
Sudden Hazardous Pressure Release No Reactive Hazard Yes

Clean Water Act. No data available

CERCLA. Hydrochloric acid CAS 7647-01-0

Official Mexican Standard NOM-002-SCT/2011, List of the Most Commonly Transported Hazardous Substances and Materials.

SECTION 16.- OTHER INFORMATION

NFPA	NFPA health Hazard	3	NFPA fire Hazard	0	NFPA instability Hazard	1	NFPA Special hazard	CORR
HMIS III	Health	3	Flammability	0	Physical	1	Personal protection	G

Splash goggles, gloves, and vapor respirator.

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End of Safety Data Sheet