SAFETY DATA SHEET

Hydrochloric Acid 37% (HCL 37%) - Technical Grade

Revised: 02/10/2026

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hydrochloric Acid 37% (HCL 37%) - Technical Grade
Synonyms: hydrochloric acid, hydrogen chloride, Muriatic acid, Chlorohydric acid, Anhydrous hydrochloric acid
CAS Number: 7647-01-0
Grade/Purity: Technical
Product Type: Acids
Product Use: Industrial, Manufacturing or Laboratory use
Manufacturer/Supplier: Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574
Information: 512-365-6838 | www.alliancechemical.com
Emergency: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Word: Danger
GHS Pictograms:

Hazard Statements:

H314	Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]
H331	Toxic if inhaled [Danger Acute toxicity, inhalation]

Precautionary Statements:

P260,	P261, P264, P271, P280, P301+P330+P331, P302+P361+P354, P304+P340, P305+P354+P338, P316, P321, P363, P403+P233, P405, and P501

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	FORMULA	MOLECULAR WEIGHT	CONCENTRATION
Hydrochloric Acid (HCL)	7647-01-0	ClH	36.46 g/mol	37% w/w
Water	7732-18-5	H_2O	18.02 g/mol	63%

4. FIRST-AID MEASURES

Eyes	EYES: immediately flush with plenty of water for at least 15 min. and get medical attention; continue flushing for another 15 min. if physician does not arrive promptly.
Skin	SKIN: immediately flush skin while removing contaminated clothing; get medical attention promptly; use soap and wash area for at least 15 min. (USCG, 1999)
Inhalation	INHALATION: remove person to fresh air; keep him warm and quiet and get medical attention immediately; start artificial respiration if breathing stops.
Ingestion	INGESTION: have person drink water or milk; do NOT induce vomiting.

5. FIRE-FIGHTING MEASURES

Suitable Media	Dry chemical, CO2, water spray. Use water spray to cool containers.
Unsuitable Media	Do not use a solid water stream as it may scatter and spread fire.
Protective Equipment	Wear self-contained breathing apparatus and full protective clothing.
Combustion Products	May include carbon oxides and other toxic fumes. See Section 10.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental	Prevent leakage or spillage from entering drains, sewers, or waterways.
Containment & Cleanup	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

7. HANDLING AND STORAGE

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area. Use corrosion-resistant containers. Keep away from: HYDROCHLORIC ACID is an aqueous solution of hydrogen chloride, an acidic gas. Reacts exothermically . Keep containers tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

Occupational Exposure Limits:

AGENCY	EXPOSURE LIMIT
OSHA PEL	5 ppm (7 mg/m³)
NIOSH REL	5 ppm (7 mg/m³)
IDLH	50.0 [ppm]

Eyes	Wear chemical safety goggles or face shield.
Skin	Wear chemical-resistant gloves and protective clothing.
Inhalation	Use NIOSH-approved respirator if exposure limits are exceeded or irritation occurs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless, fuming liquid
Odor	Pungent, irritating odor
pH	Not Available
Melting Point	-114°C (-173°F)
Boiling Point	108°C (226°F)
Flash Point	Not Available
Vapor Pressure	413.6 mmHg (USCG, 1999)
Specific Gravity	1.19
Solubility	Highly soluble in water and ethanol
Molecular Formula	ClH
Molecular Weight	36.46 g/mol

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions.
Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat, sparks, open flame, and incompatible materials.
Incompatible Materials	HYDROCHLORIC ACID is an aqueous solution of hydrogen chloride, an acidic gas. Reacts exothermically with organic bases (amines, amides) and inorganic bases (oxides and hydroxides of metals). Reacts ex
Decomposition Products	May produce carbon oxides and other toxic fumes when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: See Section 2 for GHS hazard classification.

IARC	Not listed as carcinogen.
NTP	Not listed as carcinogen.
OSHA	Not listed as carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Fish LC50: EC50; Species: Osteichthyes (Bony fish) 6 taxa; Conditions: freshwater, flow through; Concentration: 0.000014 M for < or = 560 min; Effect: chemical avoidance [PubChem]
Persistence	Not Available
Bioaccumulation	Not Available
Mobility in Soil	Not Available

13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

14. TRANSPORT INFORMATION

US DOT	UN1789, HYDROCHLORIC ACID, 8, PG II
IMDG	UN1789, HYDROCHLORIC ACID, 8, PG II, Tunnel (E)
IATA/ICAO	UN1789, HYDROCHLORIC ACID, 8, PG II Passenger: 1 L (PI 851); Cargo only: 30 L (PI 855)
Marine Pollutant	No

15. REGULATORY INFORMATION

TSCA Inventory	All ingredients are listed on the TSCA Active inventory.
California Prop 65	Refer to California Proposition 65 list for current status.
SARA 311/312	See Section 2 for hazard classifications.
SARA 313	Refer to EPA Toxic Release Inventory for current listing status.

16. OTHER INFORMATION

Revision Date: 02/10/2026