

PRODUCT IDENTIFICATION



Product Name: Hydrochloric Acid 25% ACS Grade

CAS Number: 7647-01-0

Molecular Formula: ClH

Molecular Weight: 36.46 g/mol

Grade: ACS Grade

Purity / Concentration: 25%

Synonyms: Not Available

PRODUCT OVERVIEW

Hydrochloric Acid 25% ACS Grade is a high-purity, clear liquid reagent essential for precise laboratory and industrial applications. This grade ensures strict adherence to quality standards, providing reliable results for critical chemical processes.

Grade Significance: ACS Grade signifies that the product meets the rigorous specifications set by the American Chemical Society, ensuring the high purity required for analytical and research-grade work.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

Certificate of Analysis data not available for this product.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless to slightly yellow liquid with HCl odor	Form	Liquid
Boiling Point	108°C (20.2% azeotrope)	Melting / Freezing Point	-74°C (-101°F)
Flash Point	Not applicable	Specific Gravity	1.124
Solubility	Fully soluble in water	Molecular Formula	ClH
Molecular Weight	36.46 g/mol		

APPLICATIONS

- Analytical Chemistry** — Used as a high-purity reagent for sample preparation and titration procedures where precise concentration control is required.
- Pharmaceutical Manufacturing** — Functions as a pH adjuster and catalyst in the synthesis of pharmaceutical ingredients, ensuring strict chemical compliance.
- Water Treatment** — Applied for effective pH neutralization and alkalinity control in industrial water processing systems.
- Metal Processing** — Used in pickling baths to remove rust and scale from metal surfaces, preparing them for further finishing or coating.
- Food and Beverage** — Serves as a food-grade processing aid for the modification of starches and the production of various food additives.

STORAGE & HANDLING

Proper storage is critical because this acid is highly corrosive to metals and can release hazardous vapors. Containers must be kept in a cool, well-ventilated area, away from incompatible substances like bases and oxidizing agents to prevent dangerous reactions and container degradation.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Danger



Hazard Statements:

- H290: May be corrosive to metals
- H314: Causes severe skin burns and eye damage
- H335: May cause respiratory irritation

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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