TECHNICAL DATA SHEET

Hydrochloric Acid 15% Technical Grade

Revised: 08/10/2026

PRODUCT IDENTIFICATION

Product Name: Hydrochloric Acid 15% Technical Grade
CAS Number: 7647-01-0
Molecular Formula: ClH
Molecular Weight: 36.46 g/mol
Grade: Technical Grade
Purity / Concentration: 15%
Synonyms: Hydrochloric Acid Solution, Muriatic Acid 15%

PRODUCT OVERVIEW

Hydrochloric Acid 15% Technical Grade is a versatile, colorless liquid solution essential for industrial pH control and chemical processing. Our current batch features a precise 15.13% assay and exceptional purity, including heavy metals and iron levels at just 0.0405 ppm. This concentration is ideally suited for applications requiring reliable acidity without the intensity of concentrated forms.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and commercial use where efficiency is required, but it does not meet the stringent purity standards of pharmaceutical or food-grade chemicals.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	15.13	14.5	15.5	Titration
Color (APHA/Hazen)	APHA	2.5	0	10	Spectrophotometry
Specific Gravity (20°C)	g/mL	1.073	1.071	1.075	Hydrometer @ 20°C
Residue On Evaporation	ppm	10	0	50	Evaporation
Heavy Metals As Pb	ppm	0.0405	0	1	ICP-MS (as Pb)
Iron (Fe)	ppm	0.0405	0	1	ICP-MS
Sulfate So4	ppm	0.41	0	8.11	ICP
Sulfite So3	ppm	0.2	0	28.38	ICP

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Colorless, fuming liquid	**Odor**	Pungent, irritating odor
Form	Liquid	**Boiling Point**	Not characterized for the 15% solution
Melting / Freezing Point	Not characterized for the 15% solution	**Specific Gravity**	1.075
Solubility	Soluble in water and alcohol	**Molecular Formula**	ClH
Molecular Weight	36.46 g/mol	**Vapor Pressure (20°C)**	20 mmHg
Viscosity (25°C)	0.89 cP	**Refractive Index (20°C)**	1.332
Density (25°C)	1.049 g/mL	**Partition Coefficient (log P)**	-3.0 (approx. for HCl aqueous; context-dependent)
Decomposition Temp.	Not applicable at room temperature; decomposes under strong oxidizing/ high temperature		

APPLICATIONS

1. **Water Treatment** — Used effectively to lower the pH of process water and effluent streams to meet environmental compliance standards.
2. **Metalworking** — Acts as a powerful pickling agent to efficiently remove rust, scale, and oxides from metal surfaces prior to finishing.
3. **Chemical Manufacturing** — Serves as a vital reagent in the synthesis of organic and inorganic compounds for various industrial processes.
4. **Food Processing** — Utilized under controlled conditions for pH adjustment and the processing of specific food ingredients.

STORAGE & HANDLING

Proper storage is critical because this acid is highly corrosive to metals and poses severe risks for skin and eye contact. It must be kept in original, compatible containers to prevent structural failure of storage vessels and to mitigate hazardous respiratory irritation from fumes.

- Store in a cool, dry place away from incompatible materials.
- Use corrosion-resistant containers (e.g., HDPE, glass).
- Avoid contact with metals and strong bases.
- Ensure adequate ventilation in storage areas.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles.

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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