TECHNICAL DATA SHEET

Phosphoric Acid 5% ACS Grade

Revised: 04/27/2026

PRODUCT IDENTIFICATION

Product Name: Phosphoric Acid 5% ACS Grade
CAS Number: 7664-38-2
Molecular Formula: H_3O_4P
Molecular Weight: 97.995 g/mol
Grade: ACS Grade
Purity / Concentration: 5%
Synonyms: Not Available

PRODUCT OVERVIEW

Alliance Chemical offers high-quality Phosphoric Acid 5% in an ACS Grade, ensuring precise concentration and purity for sensitive applications. This clear, colorless liquid is designed for reliable use in laboratory settings and industrial processes requiring strict chemical standards.

Grade Significance: ACS Grade signifies that the product meets the stringent purity standards set by the American Chemical Society, guaranteeing it is suitable for analytical and research-grade applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

Certificate of Analysis data not available for this product.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	**Form**	Liquid
Boiling Point	158°C (85%)	**Melting / Freezing Point**	21°C (pure)
Specific Gravity	1.028	**Solubility**	Fully miscible with water
Molecular Formula	H_3O_4P	**Molecular Weight**	97.995 g/mol

APPLICATIONS

1. **Laboratory Research** — Utilized as a standardized reagent for pH adjustment and analytical chemistry procedures where accuracy is critical.
2. **Metal Finishing** — Used in surface treatment processes to prepare metal substrates by removing oxidation and facilitating better coating adhesion.
3. **Pharmaceutical Manufacturing** — Serves as a pH buffering agent in the synthesis and stabilization of various pharmaceutical formulations.
4. **Water Treatment** — Employed to control corrosion and sequester minerals within water systems to prevent pipe degradation.
5. **Educational Institutions** — Provides a safe, diluted concentration for academic experiments and chemistry demonstrations requiring controlled acid environments.

STORAGE & HANDLING

Proper storage is essential to prevent degradation and maintain the integrity of the 5% concentration. Because this product is classified as a corrosive hazard, it must be stored in a cool, well-ventilated area in original, compatible containers to avoid skin burns and eye damage.

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:

- H314: Causes severe skin burns and eye damage [Danger Skin corrosion/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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