

PRODUCT IDENTIFICATION

**Product Name:** Phosphoric Acid 45% Technical Grade**CAS Number:** 7664-38-2**Molecular Formula:** $\text{H}_3\text{O}_4\text{P}$ **Molecular Weight:** 97.995 g/mol**Grade:** Technical Grade**Purity / Concentration:** 45%**Synonyms:** Not Available

PRODUCT OVERVIEW

Alliance Chemical offers Phosphoric Acid 45% in a reliable Technical Grade formulation suitable for a wide range of industrial and laboratory applications. This clear, slightly viscous liquid is a versatile mineral acid designed to meet consistent performance standards for chemical processing and maintenance tasks.

Grade Significance: Technical Grade signifies that this product is manufactured for industrial and commercial use where efficiency and cost-effectiveness are prioritized over the strict purity standards required for pharmaceutical or food applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

Certificate of Analysis data not available for this product.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, slightly viscous liquid	Form	Liquid
Boiling Point	158°C (85%)	Melting / Freezing Point	21°C (pure)
Specific Gravity	1.289	Solubility	Fully miscible with water
Molecular Formula	$\text{H}_3\text{O}_4\text{P}$	Molecular Weight	97.995 g/mol

APPLICATIONS

- Metal Finishing** — Utilized for metal cleaning and rust removal, this acid effectively prepares surfaces for painting or plating by stripping away oxidation.
- Water Treatment** — Acts as a pH adjuster in industrial water systems to prevent scaling and ensure optimal chemical balance within processing equipment.
- Industrial Cleaning** — Formulated into heavy-duty detergents and descalers to remove mineral deposits and inorganic buildup from machinery.
- Laboratory Research** — Serves as a fundamental reagent for various analytical procedures, synthesis, and pH control in controlled testing environments.
- Textile Manufacturing** — Used in the dyeing and finishing processes to maintain specific acidity levels required for uniform color application on fabrics.

STORAGE & HANDLING

Proper storage is critical because this acid is classified as corrosive and can cause severe skin burns and eye damage upon contact. It must be kept in a cool, well-ventilated area in compatible, corrosion-resistant containers to prevent accidental leaks or reactions with incompatible materials.

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.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

Disclaimer: The information contained herein is believed to be accurate and represents the best information currently available to us. However, Alliance Chemical makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.