

PRODUCT IDENTIFICATION



Product Name: Phosphoric Acid 45% Technical Grade

CAS Number: 7664-38-2

Molecular Formula: H_3O_4P

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	H_3O_4P	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.

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