

PRODUCT IDENTIFICATION



Product Name: Phosphoric Acid 50% 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: 50%

Synonyms: Not Available

PRODUCT OVERVIEW

Phosphoric Acid 50% Technical Grade is a clear, viscous liquid solution widely utilized for various industrial and laboratory applications. With a specific gravity of 1.329, this high-quality reagent serves as a versatile acid source for processes requiring precise chemical concentration.

Grade Significance: Technical Grade signifies that the product is optimized for industrial utility and cost-effectiveness, providing reliable performance for non-food or non-pharmaceutical applications where extreme purity is not the primary requirement.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

Certificate of Analysis data not available for this product.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, viscous liquid	Form	Liquid
Boiling Point	158°C (85%)	Melting / Freezing Point	21°C (pure)
Specific Gravity	1.329	Solubility	Fully miscible with water
Molecular Formula	$\text{H}_3\text{O}_4\text{P}$	Molecular Weight	97.995 g/mol

APPLICATIONS

- Metal Finishing** — Used extensively for metal cleaning, rust removal, and surface passivation to prepare substrates for coating or plating.
- Water Treatment** — Functions as a pH adjuster and corrosion inhibitor to maintain system integrity and prevent scale buildup in industrial water circuits.
- Chemical Manufacturing** — Acts as a key catalyst or intermediate in the synthesis of various phosphates and chemical compounds.
- Textile Industry** — Applied in dyeing and finishing processes to ensure uniform color application and fabric treatment.
- Laboratory Research** — Serves as a fundamental acidic reagent for analytical testing and experimental chemical procedures.

STORAGE & HANDLING

Proper storage is critical because this acid is corrosive to metals, which can compromise containment vessels and lead to hazardous leaks. It must be stored in compatible materials to prevent reactions that could result in severe skin burns or eye damage as indicated by its GHS hazard classification.

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

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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