

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 reliable chemical provides consistent performance for processes requiring a medium-strength acid concentration.

Grade Significance: Technical Grade indicates that the product is formulated for industrial efficiency and utility rather than food or pharmaceutical consumption. This ensures that the chemical meets the necessary purity standards for manufacturing and process applications at a cost-effective price point.

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 as a key component in metal cleaning and rust removal processes to prepare surfaces for coating or painting.
- Water Treatment** — Functions as a pH adjuster and sequestering agent to manage mineral buildup and corrosion within industrial water systems.
- Textile Manufacturing** — Applied during the dyeing and finishing stages to help regulate acidity levels and ensure color uniformity.
- Chemical Synthesis** — Serves as an essential reagent or catalyst in the production of various phosphate-based chemical compounds.
- Laboratory Research** — Utilized as a standard acid source for general analytical testing and chemical neutralization procedures.

STORAGE & HANDLING

Proper storage is critical because this acid is corrosive and causes severe skin burns and eye damage. It should be kept in a cool, well-ventilated area within secondary containment to prevent leaks and ensure the safety of personnel handling the material.

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

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