

PRODUCT IDENTIFICATION

**Product Name:** Phosphoric Acid 50% Food Grade**CAS Number:** 7664-38-2**Molecular Formula:** $\text{H}_3\text{O}_4\text{P}$ **Molecular Weight:** 97.995 g/mol**Grade:** Food Grade**Purity / Concentration:** 50%**Synonyms:** Not Available

PRODUCT OVERVIEW

Alliance Chemical offers high-quality Phosphoric Acid 50% in a Food Grade concentration, ensuring consistency for your manufacturing processes. This clear, viscous liquid is a versatile mineral acid essential for applications requiring precise pH control and chemical stability.

Grade Significance: Food Grade designation indicates that the product meets stringent purity standards suitable for human consumption or contact, providing assurance of safety and quality control for sensitive applications.

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

- Food and Beverage** — Used as a food-grade acidulant to provide a tart flavor profile in soft drinks and processed foods.
- Water Treatment** — Functions as a sequestering agent to control scale formation and prevent pipe corrosion in municipal and industrial water systems.
- Dairy Processing** — Utilized in clean-in-place (CIP) sanitation protocols to remove mineral deposits from equipment surfaces.
- Metal Finishing** — Applied in metal treatment processes for rust removal and the etching of surfaces prior to coating or painting.
- Laboratory Research** — Serves as a reliable reagent for pH adjustment and chemical synthesis in controlled laboratory environments.

STORAGE & HANDLING

Due to its corrosive nature, Phosphoric Acid must be stored in compatible, corrosion-resistant containers to prevent structural failure and leaks. Proper storage in a cool, well-ventilated area is critical to minimize the risk of severe skin burns and eye damage associated with accidental contact.

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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