

PRODUCT IDENTIFICATION

**Product Name:** Phosphoric Acid 45% 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:** 45%**Synonyms:** Not Available

PRODUCT OVERVIEW

Alliance Chemical offers high-quality Phosphoric Acid 45% Food Grade, a clear and versatile liquid solution essential for various industrial and laboratory processes. This concentrated acid is carefully managed to ensure consistent chemical properties and reliable performance in sensitive applications.

Grade Significance: Food Grade designation ensures that the chemical meets stringent purity standards and is free from harmful contaminants, making it safe for use in processes involving consumables.

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

- Food and Beverage** — Used as a common acidulant and pH regulator to provide a tart flavor profile in soft drinks and processed foods.
- Water Treatment** — Functions as a sequestering agent to control scale and corrosion in industrial water systems and municipal water supplies.
- Metal Finishing** — Utilized in metal cleaning and phosphatizing processes to create a protective coating that prevents corrosion on metal surfaces.
- Laboratory Research** — Serves as a critical reagent for pH adjustment and chemical synthesis within controlled analytical environments.
- Agriculture** — Employed in the production of fertilizers and as a clean-in-place agent for irrigation lines to prevent mineral buildup.

STORAGE & HANDLING

Proper storage is critical because this product is classified as corrosive, posing risks of severe skin burns and eye damage if mishandled. It must be stored in a cool, well-ventilated area using compatible materials, as the acid can react with metals to release flammable hydrogen gas.

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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