

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 consistent performance for sensitive processing needs. This clear, viscous liquid is manufactured to meet rigorous purity standards, making it a versatile choice for various industrial and laboratory applications.

Grade Significance: Food Grade designation ensures that the product meets stringent purity requirements and is manufactured to be free from harmful contaminants, making it safe for use in processes that may involve human consumption.

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 pH regulator and acidulant to provide a sharp, tangy flavor profile in sodas and processed foods.
- Water Treatment** — Functions as a sequestering agent to prevent corrosion and scale buildup in municipal and industrial water distribution systems.
- Dairy Processing** — Utilized as a highly effective cleaning agent for removing mineral deposits and milk stone from stainless steel equipment.
- Metal Finishing** — Acts as a critical component in metal cleaning and phosphate coating processes to improve paint adhesion and corrosion resistance.
- Laboratory Research** — Serves as a reagent for chemical synthesis and analytical testing where precise pH control is required.

STORAGE & HANDLING

Proper storage is essential because Phosphoric Acid 50% is highly corrosive and can cause severe skin burns and eye damage upon contact. It must be stored in a cool, well-ventilated area in compatible containers to prevent material degradation and ensure worker safety.

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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