

PRODUCT IDENTIFICATION

**Product Name:** Phosphoric Acid 45% ACS Grade**CAS Number:** 7664-38-2**Molecular Formula:** $\text{H}_3\text{O}_4\text{P}$ **Molecular Weight:** 97.995 g/mol**Grade:** ACS Grade**Purity / Concentration:** 45%**Synonyms:** Not Available

PRODUCT OVERVIEW

Phosphoric Acid 45% ACS Grade is a high-purity, clear, and slightly viscous liquid designed for precise laboratory and industrial applications. This grade ensures strict adherence to quality standards, providing reliable chemical consistency for sensitive processes.

Grade Significance: ACS Grade signifies that this product meets the rigorous specifications set by the American Chemical Society, ensuring the highest level of purity for analytical and critical industrial work.

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

- Laboratory Research** — Used as a high-purity reagent for analytical chemistry and pH adjustment in controlled experimental environments.
- Metal Finishing** — Functions as a critical agent for chemical polishing and surface treatment to ensure optimal coating adhesion.
- Water Treatment** — Applied for effective pH control and corrosion inhibition in industrial water systems.
- Pharmaceutical Manufacturing** — Acts as an essential chemical intermediate or buffering agent in the synthesis of various active ingredients.
- Electronics** — Utilized in the etching and cleaning processes required for the production of high-precision components.

STORAGE & HANDLING

Due to its corrosive nature, Phosphoric Acid must be stored in a cool, well-ventilated area in original, compatible containers to prevent dangerous reactions. Proper containment is essential to mitigate the risk of severe skin burns and eye damage associated with accidental exposure.

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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