

### PRODUCT IDENTIFICATION



**Product Name:** Phosphoric Acid 45% ACS Grade

**CAS Number:** 7664-38-2

**Molecular Formula:** H<sub>3</sub>O<sub>4</sub>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

<b>Appearance</b>	Clear, slightly viscous liquid	<b>Form</b>	Liquid
<b>Boiling Point</b>	158°C (85%)	<b>Melting / Freezing Point</b>	21°C (pure)
<b>Specific Gravity</b>	1.289	<b>Solubility</b>	Fully miscible with water
<b>Molecular Formula</b>	H <sub>3</sub> O <sub>4</sub> P	<b>Molecular Weight</b>	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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