

### PRODUCT IDENTIFICATION



**Product Name:** Phosphoric Acid 75%

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

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

**Molecular Weight:** 97.995 g/mol

**Grade:** Technical

**Purity / Concentration:** 75%

**Synonyms:** Orthophosphoric Acid, Phosphoric Acid Solution

### PRODUCT OVERVIEW

Alliance Chemical offers high-quality Technical grade Phosphoric Acid 75%, a clear, syrupy liquid essential for industrial pH control and chemical synthesis. With a precise assay of 75.3% and minimal impurity levels, such as 0.2 ppm of Iron, this product provides the consistency required for demanding manufacturing environments.

**Grade Significance:** Technical grade signifies that this product is manufactured to meet industrial performance standards, offering an optimal balance of purity and cost-effectiveness for non-pharmaceutical manufacturing processes.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	75.3	74	76	Titration with NaOH
Color (APHA)	APHA	10	—	20	ASTM D1209
Specific Gravity (20°C)	g/mL	1.575	1.565	1.585	ASTM D891
Heavy Metals (as Pb)	ppm	0.1	—	1	ICP-OES
Iron (Fe)	ppm	0.2	—	5	ICP-OES
Chloride (Cl <sup>-</sup> )	ppm	0.5	—	5	Ion Chromatography
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	ppm	2	—	10	Ion Chromatography
Fluoride F	ppm	1	—	10	Ion Selective Electrode

ND = Not Detected. Values are typical and may vary by lot.

### PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Clear yellowish liquid, syrupy consistency	<b>Odor</b>	Odorless
<b>Form</b>	Liquid	<b>Boiling Point</b>	158°C (316.4°F)
<b>Melting / Freezing Point</b>	42°C (107.6°F)	<b>Flash Point</b>	210°C (410°F)
<b>Specific Gravity</b>	1.57	<b>Solubility</b>	Complete water miscibility, dissolves in polar organic solvents
<b>Molecular Formula</b>	H <sub>3</sub> O <sub>4</sub> P	<b>Molecular Weight</b>	97.995 g/mol
<b>Vapor Pressure (20°C)</b>	0.1 mmHg	<b>Viscosity (25°C)</b>	1.5 cP
<b>Refractive Index (20°C)</b>	1.336	<b>Density (25°C)</b>	1.685 g/mL

## APPLICATIONS

1. **Water Treatment** — Used as a reliable agent to adjust pH levels, ensuring water quality meets strict regulatory and operational standards.
2. **Agriculture** — Serves as a fundamental raw material in the production of high-efficiency phosphate fertilizers for crop nutrition.
3. **Food Processing** — Acts as an effective acidity regulator to balance flavor profiles and ensure product stability in various food applications.
4. **Chemical Manufacturing** — Utilized as a versatile reagent in the synthesis of complex chemical compounds and industrial additives.
5. **Metal Finishing** — Employed in metal surface treatment processes to remove rust and prepare substrates for protective coatings.

## STORAGE & HANDLING

Proper storage is critical because Phosphoric Acid 75% is highly corrosive and causes severe skin burns and eye damage. Containers must be kept in a cool, well-ventilated area to maintain chemical integrity and prevent the risk of hazardous leaks or container degradation.

- Store in a cool, dry place away from incompatible materials.
- Use materials compatible with phosphoric acid, such as HDPE or glass containers.
- Avoid contact with strong bases and oxidizing agents.
- Ensure proper ventilation in storage areas to minimize vapor accumulation.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles.

## 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.*

---

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | [www.alliancechemical.com](http://www.alliancechemical.com)

**Disclaimer:** The information contained herein is believed to be accurate and represents the best information currently available to us. However, Alliance Chemical makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.