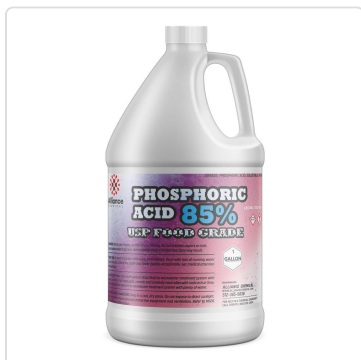


PRODUCT IDENTIFICATION



Product Name: Phosphoric Acid 85% USP 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: 85%

Synonyms: Orthophosphoric Acid, Phosphoric Acid 85%

PRODUCT OVERVIEW

Alliance Chemical offers high-purity 85% Food Grade Phosphoric Acid, a clear and viscous liquid essential for acidity regulation. With a high assay of 85.4% and tightly controlled heavy metal levels, including lead at 0.05 ppm, this product ensures consistency and safety in sensitive applications.

Grade Significance: Food Grade certification signifies that this product meets stringent purity standards and low heavy metal thresholds, ensuring it is safe for human consumption and regulated food industry use.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	85	84.5	85.5	Titration
Color (APHA/Hazen)	APHA	8	—	20	Spectrophotometry
Specific Gravity (20°C)	g/mL	1.6905	1.686	—	Hydrometer @ 25°C
Non-Volatile Residue	%	0.0030	0	0.01	Residue on Ignition
Arsenic Antimony As As	ppm	0.5	—	1	ICP-MS
Heavy Metals As Pb	ppm	2	0	5	ICP-MS (as Pb)
Iron (Fe)	ppm	5	—	10	ICP-MS
Lead Pb	ppm	0.1	0	2	ICP-MS
Chloride Cl	ppm	50	0	200.0	ICP
Nitrate No3	ppm	1.5	0	5	ICP
Sulfate So4	ppm	100.0	0	1500.0	ICP
Cadmium Cd	ppm	1	—	3	ICP-MS
Fluoride F	ppm	6	—	10	Ion Chromatography
Mercury Hg	ppm	0.01	0	0.1	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear viscous liquid, pale yellow, translucent	Odor	Odorless
Form	Liquid	Boiling Point	158 °C (316 °F)
Melting / Freezing Point	21 °C (70 °F)	Flash Point	Not applicable
Solubility	Completely miscible with water, polar solvents, excellent aqueous dissolution	Molecular Formula	H ₃ O ₄ P
Molecular Weight	97.995 g/mol	Vapor Pressure (20°C)	0.1 mmHg
Viscosity (25°C)	1.5 cP	Refractive Index (20°C)	1.334
Density (25°C)	1.685 g/mL	Decomposition Temp.	Decomposes upon heating; hazard at elevated temperatures

APPLICATIONS

- Beverage Manufacturing** — Used as a primary acidulant to provide the signature tartness and sharp flavor profile found in colas and fruit-flavored drinks.
- Food Processing** — Functions as a reliable pH regulator to maintain product stability and ensure the safety of various processed food items.
- Dairy Production** — Applied in the manufacturing of specific cheeses and cultured dairy products to manage acidity levels and protein coagulation.
- Industrial Cleaning** — Utilized in food-grade sanitation solutions to effectively remove mineral deposits and scale from food processing equipment.

STORAGE & HANDLING

Proper storage is critical because this chemical is a corrosive liquid that causes severe skin burns and eye damage. It must be stored in a cool, well-ventilated area using compatible materials to prevent hazardous reactions and ensure the integrity of the container.

- Store in a cool, dry place away from direct sunlight.
- Use materials compatible with phosphoric acid, such as HDPE or glass containers.
- Avoid contact with strong bases and reactive metals.
- Ensure proper ventilation in storage areas to prevent vapor accumulation.
- Use appropriate personal protective equipment (PPE) such as gloves and goggles when handling.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 250 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.

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.