

PRODUCT IDENTIFICATION



Product Name: pH-Ree Fall - World Class Buffering Solution For PH Stability Made From Phosphoric Acid

CAS Number: 7664-38-2

Molecular Formula: H_3O_4P

Molecular Weight: 97.995 g/mol

Grade: Technical Grade

Purity / Concentration: 30%

Synonyms: pH Buffer Solution, Phosphoric Acid Buffer

PRODUCT OVERVIEW

pH-Ree Fall is a precisely formulated buffering solution derived from phosphoric acid, designed to maintain pH stability in various applications. This solution effectively resists changes in pH when acids or bases are added, making it essential for processes requiring precise pH control.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	30	29.5	30.5	Titration
Color (APHA/Hazen)	APHA	5	—	15	Spectrophotometry
Specific Gravity (20°C)	g/mL	1.696	—	—	Hydrometer @ 25°C
Arsenic Antimony As As	ppm	≤ 0.18 ppm	—	—	ICP-MS
Heavy Metals As Pb	ppm	1	—	2	ICP-MS (as Pb)
Iron (Fe)	ppm	1	0	4	ICP-MS
Lead Pb	ppm	≤ 0.35 ppm	—	—	ICP-MS
Chloride Cl	ppm	3.53	—	7.06	ICP
Nitrate No3	ppm	≤ 1.76 ppm	—	—	ICP
Sulfate So4	ppm	≤ 17.65 ppm	—	—	ICP
Cadmium Cd	ppm	≤ 0.35 ppm	—	—	ICP-MS
Fluoride F	ppm	3.18	—	3.53	Ion Chromatography
Mercury Hg	ppm	≤ 0.35 ppm	—	—	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Odorless
Form	Liquid	Boiling Point	Not characterized for the 30% aqueous solution (water-dominated, ~100 °C)
Melting / Freezing Point	Not characterized for the 30% aqueous solution	Specific Gravity	1.18
Solubility	Highly soluble in water	Molecular Formula	H ₃ O ₄ P
Molecular Weight	97.995 g/mol	Vapor Pressure (20°C)	0.1 mmHg
Viscosity (25°C)	1.0 cP	Refractive Index (20°C)	1.336
Density (25°C)	1.07 g/mL		

APPLICATIONS

1. **Industrial** — Used in various industrial processes to maintain pH levels within specified ranges.
2. **Analytical Chemistry** — Serves as a buffering agent in titrations and other analytical methods requiring stable pH.
3. **Research Laboratory** — Utilized as a reagent in biochemical assays and experiments where pH control is critical.
4. **Food Industry** — Applied in food processing to regulate acidity and enhance product stability.
5. **Environmental** — Employed in water treatment facilities to adjust and stabilize pH levels.

STORAGE & HANDLING

- Store in a cool, dry place away from direct sunlight.
- Use HDPE or glass containers for storage to prevent chemical reactions.
- Avoid contact with strong bases and oxidizing agents.
- Ensure proper ventilation when handling to minimize inhalation risks.
- Wear appropriate personal protective equipment (PPE) such as 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.

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