

### 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<sub>3</sub>O<sub>4</sub>P

**Molecular Weight:** 97.995 g/mol

**Grade:** Technical Grade

**Purity / Concentration:** 85%

**Synonyms:** pH Buffer Solution, Phosphoric Acid Buffer

### PRODUCT OVERVIEW

pH-Ree Fall is Alliance Chemical's technical grade buffering solution, formulated with 85% Phosphoric Acid. This clear, colorless liquid boasts a specific gravity of 1.7 and an assay of 85.5%. It's primarily used across various industries to maintain stable pH levels in a multitude of processes.

**Grade Significance:** Technical Grade pH-Ree Fall is suitable for industrial applications where high purity is not a primary requirement. It offers a cost-effective solution for pH buffering without the stringent specifications of higher grades.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	85.5	85	—	Titration with NaOH
Color (APHA)	APHA	10	—	20	ASTM D1209
Specific Gravity (20°C)	g/mL	1.685	1.68	1.69	ASTM D4052
Heavy Metals (as Pb)	ppm	0.2	—	1	ICP-OES
Iron (Fe)	ppm	0.1	—	1	ICP-OES
Chloride (Cl <sup>-</sup> )	ppm	1	—	5	Ion Chromatography
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	ppm	5	—	20	Ion Chromatography

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

### PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, colorless liquid	<b>Odor</b>	Odorless
<b>Form</b>	Liquid	<b>Boiling Point</b>	213°C (415°F)
<b>Melting / Freezing Point</b>	42°C (108°F)	<b>Specific Gravity</b>	1.7
<b>Solubility</b>	Highly soluble in water	<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>	1.0 cP	<b>Refractive Index (20°C)</b>	1.336
<b>Density (25°C)</b>	1.07 g/mL		

## APPLICATIONS

- 1. Industrial Processes** — pH-Ree Fall is crucial for maintaining pH within specified ranges during chemical reactions and manufacturing, ensuring consistent product quality and process efficiency. Its buffering capabilities prevent unwanted shifts in acidity or alkalinity.
- 2. Analytical Chemistry** — As a buffering agent in titrations and other analytical methods, pH-Ree Fall guarantees accurate and reliable results. Its stable pH control is essential for precise measurements and data interpretation.
- 3. Biochemistry** — pH-Ree Fall serves as a vital reagent in biochemical assays and experiments where precise pH control is paramount. It helps create optimal conditions for enzyme activity and other biological processes.
- 4. Food Processing** — In the food industry, pH-Ree Fall regulates acidity to enhance product stability and prevent spoilage. This ensures consistent taste, texture, and shelf life for various food products.
- 5. Water Treatment** — pH-Ree Fall can be used to adjust and stabilize the pH of water in treatment processes. This is essential for effective purification and to prevent corrosion in water systems.
- 6. Metal Finishing** — pH-Ree Fall helps control the acidity of plating baths and etching solutions. Precise pH control is necessary for achieving desired surface finishes and preventing defects.

## STORAGE & HANDLING

Proper storage is crucial for pH-Ree Fall to maintain its purity and effectiveness. Because it causes severe skin burns and eye damage, it must be stored in tightly sealed containers, away from incompatible materials, and in a well-ventilated area to prevent hazardous fumes or degradation.

- 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.*

**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.