Potassium phosphate tribasic

Product Number P 5629
Store at Room Temperature
Replacement for Product Code 34,076-6

Product Description
Molecular Formula: K₃PO₄
Molecular Weight: 212.3
CAS Number: 7778-53-2
Synonym: tripotassium phosphate

Potassium phosphate is a reagent with very high buffering capacity that is widely used in molecular biology, biochemistry, and chromatography. Potassium phosphate occurs in several forms: monobasic (KH₂PO₄), dibasic (K₂HPO₄), and tribasic (K₃PO₄). Most neutral potassium phosphate buffer solutions consist of mixtures of the monobasic and dibasic forms to varying degrees, depending on the desired pH. A table for preparation of 0.1 M potassium phosphate buffer at 25 °C using various proportions of potassium phosphate monobasic and potassium phosphate dibasic has been published.¹,²

Some limitations of the usefulness of phosphate buffers include their precipitation of Ca²⁺ and Mg²⁺, their inhibition of restriction enzyme activity, and their interference in protocols related to DNA ligation and bacterial transformation.³ A study of the effect of freeze-thaw storage cycles on proteins in potassium phosphate and sodium phosphate buffer solutions has been reported.³

The use of high concentrations of potassium phosphate in the immobilization of affinity ligands onto epoxide-activated stationary phases has been reviewed.⁴ A two-phase system of aqueous potassium phosphate and poly(ethylene glycol) for the isolation of E. coli β-galactosidase and β-galactosidase fusion proteins has been published.⁵ The quantitation of nonionic surfactants in buffered solutions using strong cation and anion exchange HPLC guard columns and potassium phosphate solution has been investigated.⁶

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in water (100 mg/ml), yielding a clear, colorless solution.

References

GCY/RXR 6/03