



Title: *Buffers and Stock Solutions: Potassium Phosphate Buffer, 0.1 M*

No: RTLP-GL-BSS-4

Location:
Old CCRC Tripp Lab

Approval Date:
10 September 2004

Supersedes Date:

Materials:

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- Lab coat
- Gloves
- Filter unit: cellulose acetate membrane, 0.2µm pore size
- KH₂PO₄
- K₂HPO₄
- 1L erlymeyer flask
- pH Meter
- dH₂O
- Analytical balance
- Stir plate
- Stir bar

Procedure:

1. Proceed by making the following solutions:

Solution A: 27.2 g KH₂PO₄ per liter (0.2 M final) in water.

Solution B: 34.8 g K₂HPO₄ per liter (0.2 M final) in water.

Referring to [Table A.2A.2](#) for desired pH, mix the indicated volumes of solutions A and B, then dilute with water to 200 ml. Filter sterilize if necessary. Store up to 3 months at room temperature.

NOTE: This buffer may be made as a 5- or 10-fold concentrate simply by scaling up the amount of potassium phosphate in the same final volume. Phosphate buffers show concentration-dependent changes in pH, so check the pH of the concentrate by diluting an aliquot to the final concentration.

To prepare buffers with pH intermediate between the points listed in [Table A.2A.2](#), prepare closest higher pH, then titrate with solution A.

Author	Management Approval/Date	Effective Date

