PREPARATION OF BUFFER SOLUTIONS

Dilute each of the mixtures to 1 L with distilled water. (NOTE: the pH will not be affected if the volumes are slightly more or less than 1 L.)

IMPORTANT: The pH of each buffer must be checked and adjusted before being bottled.

- If the pH is too high, adjust the pH to the correct value by adding 1 M HCl, with stirring.
- If the pH is too low, adjust the pH to the correct value by adding 1 M NaOH, with stirring.

pH	Mixture
3	10.21 g of potassium hydrogen phthalate + 223 mL of 0.10 M HCl
4	10.21 g of potassium hydrogen phthalate + 1 mL of 0.10 M HCl
5	10.21 g of potassium hydrogen phthalate + 226 mL of 0.10 M NaOH
6	6.81 g of potassium phosphate monobasic + 56 mL of 0.10 M NaOH
7	6.81 g of potassium phosphate monobasic + 291 mL of 0.10 M NaOH
8	6.81 g of potassium phosphate monobasic + 467 mL of 0.10 M NaOH
9	4.77 g of sodium tetraborate + 46 mL of 0.10 M HCl
10	4.77 g of sodium tetraborate + 183 mL of 0.10 M NaOH
11	2.10 g of sodium bicarbonate + 227 mL of 0.10 M NaOH