

## Preparation of Sorenson's Phosphate Buffer

### Materials

- *Solution A*
  1. 2.78g Mono basic sodium phosphate  $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$   
(or 2.4g  $\text{NaH}_2\text{PO}_4$  or 3.12g  $\text{NaH}_2\text{PO}_4 \cdot 2\text{H}_2\text{O}$ )
  2. 100ml  $\text{DH}_2\text{O}$
- *Solution B*
  1. 5.36 g Di basic sodium phosphate  $\text{Na}_2\text{HPO}_4 \cdot 7\text{H}_2\text{O}$   
(or 7.17g  $\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O}$  or 2.84g  $\text{Na}_2\text{HPO}_4$ )
  2. 100ml  $\text{DH}_2\text{O}$

### Method

1. Mix appropriate volumes of stock solutions (A and B) as listed in the table to obtain your required pH. (final volume 100ml)

Solution A (mono)	Solution B (di)	pH of buffer
92 ml	8 ml	5.8
87.7 ml	12.3 ml	6.0
81.5 ml	18.5 ml	6.2
68.5 ml	31.5 ml	6.5
57 ml	43 ml	6.7
51 ml	49 ml	6.8 ( <i>used for nematodes</i> )
45 ml	55 ml	6.9
39 ml	61 ml	7.0
33 ml	67 ml	7.1
28 ml	72 ml	7.2 ( <i>used for plants</i> )
19 ml	81 ml	7.4
16 ml	84 ml	7.5
10 ml	90 ml	7.7
8.5	91.5	7.8
5.3	94.7 ml	8.0

2. Add an equal volume of distilled water to make a final 0.1 M Sorensen's phosphate buffer solution.