

Sorenson's Buffer (0.133M)

-prepare stock solutions and combine prior to use to achieve desired pH

133mM Na₂HPO₄: 35.76g dibasic NaPhosphate Heptahydrate / 1L dH₂O
or
18.89g dibasic NaPhosphate Anhydrous / 1L dH₂O

133mM KH₂PO₄: 9.08g monobasic K-Phosphate / 0.5L dH₂O

pH	mls Na ₂ HPO ₄	mls KH ₂ PO ₄
5.0	1.0	99.0
5.2	2.0	98.0
5.4	3.0	97.0
5.6	5.0	95.0
5.8	7.8	92.2
6.0	12.0	88.0
6.2	18.5	81.5
6.4	26.5	73.5
6.6	37.5	62.5
7.0	50.0	50.0
7.2	71.5	28.5
7.4	80.4	19.6
7.6	86.8	13.2
7.8	91.4	8.6
8.0	94.5	5.5
8.2	96.5	3.5

For 4% Paraformaldehyde / Sorenson's pH7.4:

20mls Sorenson's (to 0.067mM)
10mls water
10mls 16% paraformaldehyde (Electron Microscopy Sciences)

Note: Throughout the literature Sorenson's is used at a number of different Molarities (0.2M, 0.1M, 0.06M). NaH₂PO₄ has also been substituted for KH₂PO₄. In our hands, 0.067M with K works best for fixing tissues for immunofluorescence and in situs.

Shortcut:

Sorensens133

- prepare dibasic NaPhosphate (18.89g anhydrous / Liter)
- prepare monobasic KPhosphate (4.54g / 250mls)
- combine 1L NaPhosphate with 243mls KPhosphate to pH 7.4
- aliquot and DEPC treat