

Stock Solution



TD-S Revision 2.0

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0.1M ACES Buffer - 1 L

Instructions

1. Dissolve 18.22 g of ACES ([ACES, GoldBio Catalog # A-010](#) [CAS 7365-82-4, mw. = 182.20 g/mol]) in 750 mL of dH₂O.
2. Adjust to desired pH using 10N NaOH.
3. Fill to final volume of 1 L with dH₂O.
4. Filter sterilize (recommended) or autoclave.
5. Store at 4°C.

To make a 1 L solution of 0.1M ACES, use the table below to estimate the required volume of base for a given pH:

Starting pH: 4.09
Adjust pH with: 10N NaOH

pH	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5
mL	1.1	1.2	1.42	1.72	2.02	2.5	2.9	3.3	3.75	4.25	4.71	5.11	5.49	5.89	6.21

Note: This data was collected in GoldBio labs using GoldBio reagents and calculated using 100 ml volumes. All reagent volumes recorded above were adjusted accordingly to create this protocol.

ACES pKa at 25°C: 6.78
ACES pH range: 6.1 -7.2
d(pKa)/dT value: -0.02