

# Stock Solution



TD-S Revision 2.0

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## 0.5M CHES Buffer - 1 L

### Instructions

1. Dissolve 103.65 g of CHES ([CHES, GoldBio Catalog # C-870](#) [CAS 103-47-9, mw. = 207.29 g/mol]) in 750 mL of dH<sub>2</sub>O.
2. Adjust to desired pH using 10N NaOH.
3. Fill to final volume of 1 L with dH<sub>2</sub>O.
4. Filter sterilize (recommended) or autoclave.
5. Store at 4°C.

To make a 1 L solution of 0.5M CHES, use the table below to estimate the required volume of base for a given pH:

Starting pH: 4.13  
Adjust pH with: 10N NaOH

pH	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0
mL	5	7	11	15	18	20	22	24	27	30	33	35	37	39	41

**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.**

CHES pKa at 25°: 9.5  
CHES pH range: 8.6 – 10.0  
d(pKa)/dT value: -0.011