

# Stock Solution



TD-S Revision 2.0

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## 1M BES Buffer - 1 L

### Instructions

1. Dissolve 213.25 g of BES ([BES, GoldBio Catalog # B-780](#) [CAS 10191-18-1, mw. = 213.25 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 1M BES, use the table below to estimate the required volume of base for a given pH:

Starting pH: 2.55  
Adjust pH with: 10N NaOH

pH	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8
mL	11	12.5	15	19	22	27	32	38	43	50	56.5	63	71	76	82

**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.**

BES pKa at 25°: 7.09  
BES pH range: 6.4 – 7.8  
d(pKa)/dT value: -0.016