

Stock Solution



TD-S Revision 2.0

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1 M PIPES Buffer - 1 L

Instructions

1. Add 302.37 g of PIPES ([PIPES, Free Acid, GoldBio Catalog # P-281](#) [CAS 5625-37-6, mw. = 302.37]) to 600 mL of dH₂O. PIPES free acid will not readily dissolve until the solution is raised above pH 6.5.
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 1M PIPES, use the table below to estimate the required volume of base for a given pH:

Starting pH: 2.87
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	78	93	108	110	112	115	119	123	127	132	138	144	148	153	158

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.

PIPES pKa at 25°: 6.76
PIPES pH range: 6.1 – 7.5
d(pKa)/dT value: -0.0085