

Technical Information

Allen Basal Solution (10X)

Product Code: PL1037

Composition**

Ingredients	gm/lit
Part A	
Magnesium sulphate heptahydrate	25.0
Dipotassium hydrogen phosphate	7.0
Calcium chloride dehydrate	1.0
Sodium chloride	10.0
Part B	
Trace Element (Micro) Boric acid	0.0286
Trace Element (Micro) Manganese chloride	0.0181
Trace Element (Micro) Zinc sulphate	0.00222
Trace Element (Micro) Sodium molybdate	0.0039
Trace Element (Micro) Copper sulphate	0.00079
Trace Element (Micro) Cobalt nitrate	0.00049
Solvent Distilled water (final volume)	Make up to 1000 ml

Principle And Interpretation

To prepare 1 liter (1000 ml) of a 10X concentrated Allen Basal Solution (commonly used for algae and cyanobacteria culture like Allen and Arnon medium), multiply the standard 1X component amounts by 10, dissolve them sequentially in 800 ml of distilled water, adjust the pH, and bring the final volume to 1 liter.

Directions

- **Water volume** : Measure 800 ml of distilled or deionized water in a clean glass beaker.
- **Dissolution** : Add each weighed salt one by one while stirring with a magnetic stirrer until completely dissolved. Dissolve salts sequentially- do not dump them all in clumped together.
- **pH adjustment** : Check the pH using a calibrated pH meter and adjust it to the required range (typically pH 7.0-7.2) using diluted HCl or NaOH.
- **Volume makeup** : Transfer the clear solution to a 1 –liter volumetric flask and add more distilled water until the total exact volume reaches 1000 ml (1L).
- **Sterilization** : Autoclave at 15 psi (121°C) for 20 minutes or filter-sterilize using a 0.22 µm membrane filter. Store at 4°C in the dark

Quality Control

Appearance	: Clear colourless solution.
pH	: 7.0 – 7.2
Sterility	: No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Storage and Shelf Life

Shelf life 24 months
Storage 2°C – 8°C

Disclaimer :

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