

Technical Information

Z8 Basal Solution (10X)

Product Code: PL1040

Composition**

Ingredients	mg/Litre
Sodium Nitrate	467.000
Dipotassium hydrogen phosphate	31.000
Magnesium sulphate heptahydrate	250.000
Ammonium Chloride	31.000
Sodium Carbonate	20.000
Calcium Nitrate Tetrahydrate	59.000
Disodium EDTA	500.000
Ferrous sulphate heptahydrate	4.980
Boric acid	3.100
Manganese chloride tetrahydrate	2.230
Aluminum potassium sulphate dodecahydrate	0.474
Zinc sulphate heptahydrate	0.220
Nickel ammonium sulphate hexahydrate	0.198
Cadmium nitrate tetrahydrate	0.154
Cobalt Nitrate hexahydrate	0.146
Potassium bromide	0.119
Ammonium molybdate tetrahydrate	0.088
Potassium iodide	0.083
Vanadyl sulphate hexahydrate	0.054
Chromium nitrate tetrahydrate	0.037
Sodium tungstate dehydrate	0.033
Copper sulphate pentahydrate	0.0125
TOTAL gm/100ml	1.37

Principle And Interpretation

Z8 Basal solution (10X) is a filter sterilized liquid. Recommended for the in vitro cultivation of fresh water cyanobacteria and microalgae. Add 100 ml per litre of basal stock solution to the prepared medium to achieve the desired concentration.

Directions

Measure out approximately 600 ml of distilled water stirring add 100 ml of basal stock solution. Rinse the original bottle with a small volume of distilled water to remove traces of the solution. Add desired heat stable supplements prior to autoclaving. Adjust the medium to the desired pH using 1N HCl/1N NaOH. Make up the final volume to 1000 ml with distilled water. Sterilize the medium by autoclaving at 15 lbs or 121°C for 15 minutes. Cool the autoclaved medium to 45°C before adding the filter sterilized heat labile supplements. Dispense the desired amount of medium in sterile culture vessels.

Quality Control

Appearance : Colourless to faint yellow/greenish-tinted, clear solution

pH at 25°C : 6.8 ± 0.5 of 100 basal stock solution.

Sterility : No bacterial or fungal growth is observed after 14 days of incubation , as per USP specification.

Cultural Response

Cultural condition

- **Incubation period** : 4 weeks
- **Temperature** : $24^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$
- **Photoperiod (D:N) in hours** : 16:8 or 24:0

Cell Line	Types of Culture	Results
Chlorella species culture	Suspension	Actively growing cells, No toxicity to cells
Nostoc species	Suspension culture	Actively growing cells, No toxicity to cells

(The medium is prepared as per direction. The growth promoting activity of this basal salt solution is evaluated using two algal species viz. Chlorella species and Nostoc species through three passages)

Storage and Shelf Life

- Store $2-8^{\circ}\text{C}$ protect from light
- 12 months

Disclaimer :

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