

Technical Information

Bold Basal Solution (10X)

Product Code: PL1031

Composition**

Ingredients	mg/100ml
Sodium nitrate	250.000
Calcium EDTA	63.600
Magnesium sulphate heptahydrate	75.000
Potassium dihydrogen phosphate	233.600
Sodium chloride	25.000
EDTA	50.000
Ferric EDTA monosodium salt	6.500
Boric acid	11.400
Zinc sulphate.7H ₂ O	8.800
Manganese chloride.4H ₂ O	1.400
Molybdenum trioxide	0.700
Copper sulphate.5H ₂ O	1.600
Cobalt nitrate.6H ₂ O	0.500
Tris free base	12.500
TOTAL gm/100ml	0.74

Principle And Interpretation

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

Directions

Measure out approximately 600ml of distilled water. While stirring add 100ml 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 1000ml 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 yellow, clear solution.
pH at 25°C : 4.8 ±1.0 of 100ml 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 : 8 weeks
- Temperature : 24°C ± 1.0°C
- Photoperiod (D:N) in hours : 24.0

Cell Line	Types Of Culture	Results
<i>Chlorella</i> species	Suspension culture	Actively growing cells, No toxicity to cells
<i>Nostoc</i> 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 the basal stock solution at 2-8°C away from direct light. If possible, the entire content of each bottle should be used immediately aseptically after opening or else the unused portion should be stored at the given temperature. Avoid contaminating the liquid. Use before the expiry date.

Further Reading

1. Bischoff H.W. & Bold HC (1963) Phycological studies IV. Some soil algae from enchanted rock & related algal species. University of Texas Publ. 6318: 1-95
1. Bold H.C. (1949) The morphology of *Chlamydomonas chlamydogama* sp. nov. *Bull. Torrey Bot. Club.* 76, 101-108

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