Product Information Sheet

B1411
BG-11 Medium Solution, 50x

Synonym: Blue-Green (BG) Medium

Properties

Form:	Liquid
Appearance:	Light Yellow to Yellow
Application:	Cyanobacteria Media
Solubility:	Miscible with Water
Typical Working Concentration:	20.00 mL/L
Storage Temp:	2-6ºC
Storage Temp of Stock Solution:	2-6ºC
Other Notes:	It is suggested not to autoclave BG-11 Medium Solution at 50x concentration as precipitation may result.

Formula (mg/L)

Boric Acid	143	Manganese Chloride·4H2O	90.5
Calcium Chloride Anhydrous	1359	Na2·Mg·EDTA	50
Citric Acid, Anhydrous	300	Potassium Phosphate dibasic	2000
Cobalt Nitrate·6H2O	2.45	Sodium Carbonate Anhydrous	1000
Cupric Sulfate·5H2O	3.95	Sodium Molybdate·2H2O	19.5
Ferric Ammonium Citrate	300	Sodium Nitrate	75000
Magnesium Sulfate·7H2O	3750	Zinc Sulfate*7H2O	11.1

Application Notes

BG-11 is generally a freshwater growth medium for culturing cyanobacteria such as *Synechocystis* sp. PCC 6803.
HEPES – H326 (Akira *et al.* 1996) or TES (Xu *et al.* 1994) can be added to buffer the pH. After adding the BG-11 concentrated solution, adjust to pH 8.0 with KOH or NaOH and autoclave.
20 mM HEPES (H326) was used during biological testing of this product with Synechocystis sp. PCC 6803

References

Akira, K., K. Lee, H. Fukuzawa, K. Ohyama, and T. Ogawa. (1996) *cemA* homologue essential to CO2 transport in the cynanobacterium *Synechocystis* PCC 6803. *Proceedings of the National Academy of Sciences*. 93:4006-4010.

Rippka, R., J. Deruelles, J. B. Waterbury, M. Herdman, and R. Y. Stanier (1979) Generic assignments, strain histories and properties of pure cultures of cyanobacteria. *Journal of General Microbiology* 111:1-61.

Stanier, R.Y., R. Kunisawa, M. Mandel, and G. Cohen-Bazire. (1971) "Purification and Properties of Unicellular Blue-Green Algae (Order *Chroococcales*)." *Bacteriological Reviews* 35(2):171-205.

Xu, H., D. Vavilin, C. Funk, and W. Vermaas. "Multiple Deletions of Small-Cab-like Proteins in the Cyanobacterium *Synechocystis* sp. PCC 6803." *Journal of Biological Chemistry* 279(27): 27971-27979.

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