



Product Information Sheet

B1650 Bold's Basal Medium, 50x

Synonym: BBM

Properties:

Form: Liquid
Appearance: Clear with Light Green to Purple Tint
Application: Freshwater algal culture
Solubility: Miscible with Water
Typical Working Concentration: 20.0 mL/L
Storage Temp: 2-6°C
Other Notes: Approx. Solution pH is 4.2 +/- 0.5
It is suggested not to autoclave this product in its 50x concentrate form, as precipitation may result. Product may develop a purple tint over time.

Formula (mg/L):

Boric Acid	571	Manganese Chloride•4H ₂ O	72
Calcium Chloride, Anhydrous	943.6	Sodium Molybdate	59.7
Cobalt Nitrate•6H ₂ O	24.5	Potassium Hydroxide	1550
Cupric Sulfate•5H ₂ O	78.5	Potassium Phosphate, Dibasic	3750
EDTA, Disodium Salt	3180.5	Potassium Phosphate, Monobasic	8750
Ferrous Sulfate•7H ₂ O	249	Sodium Chloride	1250
Magnesium Sulfate, Anhydrous	1831.3	Sodium Nitrate	12500
		Zinc Sulfate•7H ₂ O	441

Application Notes:

Bold's Basal Medium (BBM) is a freshwater algae medium that has been used to grow a variety of green algal cultures (e.g. *Trichosarcina*, *Chlorococcum*, and *Chlorella*) without the need for soil-extract or vitamins (Brown *et al.*, 1964; Nichols and Bold, 1965). The predominantly inorganic nature of this medium facilitates itself as an axenic-culture maintenance medium (Nichols and Bold, 1965).

Media Preparation:

The standard medium is prepared as follows: Add 20.0 mL of the BBM 50x concentrate to ~0.98 liters of DI water. The final solution pH is adjusted to 6.6 +/- 0.1 with KOH (Stein, 1973).

References:

Brown, R.M., Larson, D.A., and H.C. Bold. (1964) *Science* 143(3606), 583-585.
Nichols H.W., and H.C. Bold (1965) *J. Phycology* 1, 34-38.
Stein J. (1973) Handbook of Phycological methods. Culture Methods and Growth Measurements. Cambridge University Press. 448 pp.