



## Product Information Sheet

### P6859 Provasoli's Enriched Seawater (West & McBride)

#### Properties:

Form:	Fine to Coarse Powder
Appearance:	Under Development
Application:	Marine phytoplankton and macroalgae
Solubility:	Under Development
Typical Working Concentration:	0.05 g/L
Storage Temp:	2-6°C
Storage Temp of Stock Solution:	2-6°C
Biological Assay:	Algal culture tested

#### Formula (mg/L):

Boric Acid	2.24	Sodium Nitrate	38.5
Cobalt Sulfate•6H <sub>2</sub> O	0.01	Zinc Sulfate•7H <sub>2</sub> O	0.044
EDTA, disodium salt•2H <sub>2</sub> O	2.60	Biotin	4.0 x 10 <sup>-3</sup>
Ferrous Ammonium Sulfate•12H <sub>2</sub> O	0.70	Vitamin B12	8.8 x 10 <sup>-4</sup>
Sodium b-glycerophosphate•5H <sub>2</sub> O	4.00	Thiamine HCl	0.04
Manganese Sulfate•H <sub>2</sub> O	0.24		

#### Application Notes:

Luigi Provasoli's development of an enriched seawater medium was a significant advancement to marine algal culture (Provasoli 1958). West and McBrides work with carposporophytes from red alga, spawned a modification of Provasoli's Enriched Seawater (West and McBride 1999), which increased the nitrates, and decreased the iron. Tris has been eliminated as well since it is a substrate for some micro-organisms.

Dissolve in 0.05 g in 0.99L of seawater (S7650) and adjust the pH to 8.0 +/- 0.1 with either HCl or KOH. Bring the final volume to 1.0L with seawater. Autoclave the medium.

#### References:

- Provasoli, L. (1958) "Effect of Plant Hormones on *Ulva*" *Biological Bulletin* 114 (3) pg 375-384.  
West, J.A. D.L. McBride (1999) "Long-term and diurnal carpospores discharge patterns in the Ceramiaceae, Rhodomelaceae and Delesseriaceae (Rhodophyta)" *Hydrobiologia* 298/299 pg.101-113.