

MET 44

Stocks

	per 100 ml
(1) NaNO ₃	3.4 g
(2) NaH ₂ PO ₄ .12H ₂ O	0.925 g
(3) Na ₂ EDTA.2H ₂ O	0.803 g
(4) MnCl ₂ .4H ₂ O	0.0144 g
(5) FeSO ₄ .7H ₂ O	0.06 g
H ₂ SO ₄	0.3 ml

(6) Vitamin mix:

	per litre
Cyanocobalamin (Vitamin B ₁₂)	0.0005 g
Biotin	0.0005 g
Thiamine HCl (Vitamin B ₁)	0.1g

For ease of measuring, first prepare primary stock solutions and divide into 1ml aliquots to be frozen for later use.

Component	Primary Stock solution	Quantity	Molar Concentration in final medium
Thiamine HCl (B ₁)	-	100mg	2.96×10^{-7}
Biotin	0.1g L ⁻¹ dH ₂ O	5ml	2.05×10^{-9}
Cyanocobalamin (B ₁₂)	0.1g L ⁻¹ dH ₂ O	5ml	3.69×10^{-10}

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| (7) Sodium metasilicate
Na ₂ SiO ₃ .9H ₂ O
(Silicate can react with glass, ensure this stock solution is stored in plastic bottles). | per 200 ml
6 g |
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Medium

	per litre
Stock solution 1	0.1 ml
Stock solution 2	0.1 ml
Stock solution 3	0.1 ml
Stock solution 4	0.1 ml
Stock solution 5	0.1 ml
Stock solution 6 (Vitamin mix)	1.0 ml
Stock solution 7	0.35 ml

Make up to 1 litre with filtered natural seawater. For agar, add 15 g per litre Bacteriological Agar. Autoclave at 15 psi for 15 minutes.

Reference

Schöne, H. K. and Schöne, Anne. "MET 44: A Weakly Enriched Sea-Water Medium for Ecological Studies on Marine Plankton Algae, and Some Examples of Its Application", vol. 25, no. 3, 1982, pp. 117-122. – adapted for CCAP

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