

f/2 modified

(Guillard and Ryther 1962, Guillard 1975)

add the following stock solutions to 900 ml of filtered seawater (0,1µm) and fill up to 1 liter

Components	Stock Solution	Addition per Litre of Culture Medium
1. NaNO₃	75.00 g / l dH ₂ O	1 ml
2. NaH₂PO₄ x H₂O	5.00 g / l dH ₂ O	1 ml
3. Vitamin Solution		1 ml
Vitamin B12	0.20 mg / l dH ₂ O	
Biotin	1.00 mg / l dH ₂ O	
Thiamine-HCl	100.00 mg / l dH ₂ O	
Niacinamide	0.10 mg / l dH ₂ O	

pH of the Vitamin Solution should be around pH 7.0

4. Trace Metals 1 ml

4.1. Preparation of Trace Metal Solution

Na₂EDTA x 2 H₂O (Titriplex III) : 4.36 g

FeCl₃ x 6 H₂O : 3.15 g

Dissolve in 1000 ml dH₂O, then add 1 ml of Primary Trace Metals each (see below). Autoclave!

Primary Trace Metals are stored frozen as 1 ml aliquots.

4.2. Primary Trace Metals

4.2.1. CoCl ₂ x 6 H ₂ O	1.00 g / 100 ml dH ₂ O
4.2.2. CuSO ₄ x 5 H ₂ O	0.98 g / 100 ml dH ₂ O
4.2.3. MnCl ₂ x 4 H ₂ O	18.00 g / 100 ml dH ₂ O
4.2.4. Na ₂ MoO ₄ x 2 H ₂ O	0.63 g / 100 ml dH ₂ O
4.2.5. ZnSO ₄ x 7 H ₂ O	2.20 g / 100 ml dH ₂ O

You can also buy Guillard's (F/2) Marine Water Enrichment Solution 50 X, is a concentrate of major nutrients, trace metals and vitamins that can be diluted in filtered seawater to support reconstitution of Guillard's (F/2) Marine Enrichment medium. G0154 without silicate and G9903 with silicate.