

1693. Cyanobacteria Medium ES

Minerals	Volume [mL/L]	Stock Solutions [g/L]
Soil Extract	30	see recipe next page
KNO ₃	10.5	19
K ₂ HPO ₄	4.6	4.35
MgSO ₄ x 7 H ₂ O	2.7	7.5
Micronutrient solution	5.0	See recipe below

Adjust to 1000mL with H₂O dist. and autoclave.

Micronutrients Component 1	Volume [g/50mL]	
FeSO ₄ x 7 H ₂ O	0.7	(solutions remains slightly turbid)
Na-EDTA x 2 H ₂ O	2.0	(solution remains slightly turbid)

Combine the 2 solutions (yields a clear solution)

Micronutrients Component 2	Volume [ml/L]	[g/L] stock solution
ZnSO ₄ x 7 H ₂ O	1	1
MnSO ₄ x 1 H ₂ O	2	0.76
H ₃ BO ₃	5	2
Co(NO ₃) ₂ x 6 H ₂ O	0.2	5
Na ₂ MoO ₄ x 2 H ₂ O	5	0.2
CuSO ₄ x 5 H ₂ O	0.02	0.250
	[g/L]	
Na-EDTA x 2 H ₂ O	0.4	

For Micronutrient solution combine Component 1 and Component 2 and adjust to 1 l

Freeze aliquots for storage

Recipe for the preparation of soil extract:

- Fill 300ml garden soil in a 1 l laboratory flask and fill up with H₂O_{dist} to 700 ml

(The soil should not contain too much humus and not too much clay – avoid soil contaminated with fertilizers, herbicides or fungicides)
- Shake vigorously
- Autoclave for 1 h at 121 °C and let cool down
- After 24 h autoclave for a second time (for 1 h at 121 °C)
- Remove particles and debris by centrifugation
- Filter through Whatman filter (Whatman 595 1 / 2, 320 mm) to remove residual particles
- Filter sterilize (PES membrane, pore size 0,22 µm)
- Store in the refrigerator