

1059: GEOALKALIBACTER MEDIUM

NH ₄ Cl	0.50	g
KCl	0.20	g
MgCl ₂ x 6 H ₂ O	0.10	g
KH ₂ PO ₄	0.20	g
NaCl	1.00	g
Trace element solution SL-10	1.00	ml
Selenite-tungstate solution	1.00	ml
Na ₂ CO ₃	3.00	g
NaHCO ₃	10.00	g
Sulfur (powdered)	10.00	g
Yeast extract	0.10	g
Na-acetate	2.50	g
Distilled water	1000.00	ml

Dissolve ingredients (except carbonate, hydrogencarbonate, sulfur, yeast extract and acetate), then sparge medium with 100% N₂ gas for 30 - 45 min to make it anoxic. Add solid carbonate and bicarbonate, adjust pH to 9.0 - 9.2, and dispense under 100% N₂ gas atmosphere into anoxic Hungate-type tubes or serum vials containing already the appropriate amount of sulfur. Sterilize medium by autoclaving at **110°C** for 20 min. Add yeast extract and acetate from sterile anoxic stock solutions prepared under 100% N₂ gas.

Trace element solution SL-10 (from medium 320)

HCl (25%)	10.00	ml
FeCl ₂ x 4 H ₂ O	1.50	g
ZnCl ₂	70.00	mg
MnCl ₂ x 4 H ₂ O	100.00	mg
H ₃ BO ₃	6.00	mg
CoCl ₂ x 6 H ₂ O	190.00	mg
CuCl ₂ x 2 H ₂ O	2.00	mg
NiCl ₂ x 6 H ₂ O	24.00	mg
Na ₂ MoO ₄ x 2 H ₂ O	36.00	mg
Distilled water	990.00	ml

First dissolve FeCl₂ in the HCl, then dilute in water, add and dissolve the other salts. Finally make up to 1000.00 ml.

Selenite-tungstate solution (from medium 385)

NaOH	0.50	g
Na ₂ SeO ₃ x 5 H ₂ O	3.00	mg

Microorganisms



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Na ₂ WO ₄ x 2 H ₂ O	4.00	mg
Distilled water	1000.00	ml