Microorganisms



Main sol. 358a		
(NH ₄) ₂ SO ₄	1.30	g
KH ₂ PO ₄	0.28	g
$MgSO_4 \times 7 H_2O$	0.25	g
$CaCl_2 \times 2 H_2O$	0.07	g
$FeCl_3 \times 6 H_2O$	0.02	g
Allen's trace element solution	10.00	ml
Sulfur (powder)	5.00	g
Yeast extract (OXOID)	0.50	g
Distilled water	1000.00	ml

1. Dissolve ingredients, except sulfur and yeast extract, bring medium to the boil, then cool to room temperature under 80% H_2 and 20% CO_2 gas mixture and adjust pH to 2.5 using 10 N H_2SO_4 . Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials (e.g., 20 ml medium in 100 ml serum bottles) containing already the appropriate amount of sulfur. For sterilization sealed bottles with medium are heated in a boiling water bath for 2 - 3 h on each of 3 successive days. Add yeast extract from a sterile anoxic stock solution prepared under 100% N_2 gas atmosphere.

2. Pressurize inoculated bottles to 1 bar overpressure with sterile 80% $\rm H_2$ and 20% $\rm CO_2$ gas mixture.

3. Note: Inoculate with 5% (w/v) culture. Incubate without shaking.