407. SYNTROPHOMONAS SD2 MEDIUM

Solution A:
Mineral solution (see medium 212) 50.00 ml
Trace element solution SL-10 (see medium 320) 1.00 ml
Rumen fluid, clarified (see medium 1310) 50.00 ml
Trypticase peptone (BD BBL) 1.00 g
Na₂SO₄ 2.80 g
Na-resazurin solution (0.1% w/v) 0.50 ml
Distilled water 830.00 ml

Solution B:
Na₂CO₃ 1.50 g
Distilled water 30.00 ml

Solution C:
Vitamin solution (see medium 503) 1.00 ml

Solution D:
Na-stearate 0.61 g
Distilled water 20.00 ml
Dissolve stearate by heating in water bath.

Solution E:
L-Cysteine-HCl x H₂O 0.30 g
Distilled water 10.00 ml

Solution F:
Na₂S x 9 H₂O 0.30 g
Distilled water 10.00 ml

Add and dissolve ingredients of solution A, adjust pH to 7.2, then sparge medium with 80% N₂ and 20% CO₂ gas mixture for 30 – 45 min to make it anoxic. Distribute medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Solution B is autoclaved separately under 80% N₂ and 20% CO₂ gas atmosphere. Solution C is prepared under 100% N₂ gas and sterilized by filtration. Solutions D, E and F are autoclaved under 100% N₂ gas. To complete the medium, appropriate amounts of solutions B to F are added to the sterile solution A. Adjust pH of complete medium to 7.2, if necessary.

Note: Use 25 - 50% inoculum. Growth can be followed by the clearing of stearate. Maintain cultures at 25°C.