641. DESULFOVIBRIO (MV) MEDIUM

NH₄Cl  1.0 g
Na₂SO₄  2.0 g
Na₂S₂O₃ x 5 H₂O  1.0 g
MgSO₄ x 7 H₂O  1.0 g
CaCl₂ x 2 H₂O  0.1 g
KH₂PO₄  0.5 g
Trace element solution SL-10 (see medium 320)  1.0 ml
Selenite-tungstate solution (see medium 385)  1.0 ml
Yeast extract  1.0 g
Na-resazurin solution (0.1% w/v)  0.5 ml
NaHCO₃  2.0 g
Vitamin solution (see medium 141)  10.0 ml
Na-DL-lactate  2.5 g
Na₂S x 9 H₂O  0.1 g
Distilled water  1000.0 ml

Dissolve ingredients (except bicarbonate, vitamins, lactate and sulfide), sparge medium with 100% N₂ gas for 30 – 45 min to make it anoxic, then dispense under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. After autoclaving complete the medium by adding vitamins (sterilized by filtration), lactate and sulfide from sterile anoxic stock solutions prepared under 100% N₂ gas and bicarbonate from a sterile anoxic stock solution prepared under 80% N₂ and 20% CO₂ gas atmosphere. Adjust pH of the complete medium to 7.0 - 7.2, if necessary. Note: Prior to inoculation 10-20 mg/l sodium dithionite (added from a 5% w/v solution freshly prepared under N₂ and filter-sterilized) can be added to the medium to stimulate growth at the beginning.

For DSM 7073, DSM 101608 and DSM 101609 replace lactate with 0.9 g/l glycerol and adjust pH of complete medium to 7.5.

For DSM 10349 replace lactate with 2.5 g/l Na-pyruvate added to the autoclaved medium from an anoxic stock solution sterilized by filtration and supplement medium with an additional amount of 1.0 g/l Na₂S₂O₃ x 5 H₂O added from an anoxic stock solution sterilized by filtration.

For DSM 13257, DSM 16036, DSM 16058, DSM 24088 and DSM 24093 replace lactate with 2.5 g/l Na-pyruvate added to the autoclaved medium from an anoxic stock solution sterilized by filtration.

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For DSM **18151** replace lactate with 0.2 g/l Na-acetate. After inoculation pressurize culture vessels to 1 bar overpressure with sterile 80% H₂ and 20% CO₂ gas mixture.

For DSM **21394** replace lactate with 5.0 ml/l methanol added to the autoclaved medium from an anoxic stock solution prepared under 100% N₂ gas.

For DSM **24089** and DSM **102940** replace lactate with 3.5 g/l D-fructose added to the autoclaved medium from an anoxic stock solution sterilized by filtration.

For DSM **25471** replace lactate with 2.0 g/l D-glucose added to the autoclaved medium from a sterile anoxic stock solution.

For DSM **28127** replace lactate with 0.4 g/l Na-benzoate added to the autoclaved medium from a sterile anoxic stock solution.