641. DESULFOVIBRIO (MV) MEDIUM

NH_4Cl	1.0	g
Na_2SO_4	2.0	g
$Na_2S_2O_3$ x 5 H_2O	1.0	g
$MgSO_4$ x 7 H_2O	1.0	g
$CaCl_2$ x 2 H_2O	0.1	g
KH_2PO_4	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
$NaHCO_3$	2.0	g
Vitamin solution (see medium 141)	10.0	ml
Na-DL-lactate	2.5	g
Na_2S x 9 H_2O	0.1	g
Distilled water	1000.0	ml

Dissolve ingredients (except bicarbonate, vitamins, lactate and sulfide), sparge medium with 100% N_2 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% N_2 gas and bicarbonate from a sterile anoxic stock solution prepared under 80% N_2 and 20% CO_2 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 N_2 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 $Na_2S_2O_3$ x 5 H_2O 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% H_2 and 20% CO_2 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% N_2 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.