521: DESULFOMONILE MEDIUM

NH_4Cl	1.00	g
Na_2SO_4	2.00	g
$Na_2S_2O_3$ x 5 H_2O	1.00	g
$MgSO_4$ x 7 H_2O	1.00	g
$CaCl_2$ x 2 H_2O	0.10	g
KH_2PO_4	0.50	g
Trace element solution SL-10	1.00	ml
Selenite-tungstate solution	1.00	ml
Yeast extract	1.00	g
Sodium resazurin (0.1% w/v)	0.50	ml
$NaHCO_3$	1.00	g
Vitamin solution	10.00	ml
Na-pyruvate	2.50	g
Na_2S x 9 H_2O	0.10	g
Distilled water	1000.00	ml

1. Dissolve ingredients (except bicarbonate, vitamins, pyruvate and sulfide), then sparge medium with 100% N_2 gas for 30 - 45 min to make it anoxic. Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Complete the medium by adding vitamins, pyruvate and sulfide from sterile anoxic stock solutions prepared under 100% N_2 gas atmosphere and bicarbonate from a sterile anoxic stock solution prepared under 80% N_2 and 20% CO_2 gas mixture. Stock solutions of vitamins and pyruvate are sterilized by filtration. Adjust pH of the complete medium to 6.8 - 7.0.

2. 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.

Vitamin solution

Pyridoxine hydrochloride	5.00	mg
Riboflavin	5.00	mg
Calcium pantothenate	5.00	mg
p-Aminobenzoate	5.00	mg
Thioctic acid	5.00	mg
Nicotinamide	50.00	mg
Biotin	5.00	mg
Folic acid	5.00	mg
Vitamin B_{12}	5.00	mg
Haemin (dissolved in 0.1 N NaOH)	5.00	mg
1,4-Naphthoquinone (dissolved in 0.1 N NaOH)	20.00	mg
Distilled water	1000.00	ml

Trace element solution SL-10 (from medium 320)

HCl (25%)	10.00	ml
$FeCl_2$ x 4 H_2O	1.50	g
$ZnCl_2$	70.00	mg
$MnCl_2$ x 4 H_2O	100.00	mg
H_3BO_3	6.00	mg
$CoCl_2$ x 6 H_2O	190.00	mg
$CuCl_2$ x 2 H_2O	2.00	mg
$NiCl_2$ x 6 H_2O	24.00	mg
Na_2MoO_4 x 2 H_2O	36.00	mg
Distilled water	990.00	ml

First dissolve $FeCl_2$ 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_2SeO_3 x 5 H_2O	3.00	mg
Na_2WO_4 x 2 H_2O	4.00	mg
Distilled water	1000.00	ml