1166: DESULFONATRONUM THIOAUTOTROPHICUM MEDIUM

NaCl	6.00	g
K_2HPO_4	1.00	g
Na_2SO_4	2.80	g
$NaHCO_3$	8.00	g
Na_2CO_3	22.00	g
NH_4Cl	0.20	g
$MgCl_2$ x 6 H_2O	0.20	g
Trace elements solution (Pfennig & Lippert,1966)	1.00	ml
Selenite-tungstate solution	1.00	ml
Yeast extract	0.05	g
Na-formate	3.40	g
Na-pyruvate	0.55	g
$Na_2S_2O_3$ x 5 H_2O	5.00	g
Wolin's vitamin solution (10x)	1.00	ml
Na_2S x 9 H_2O	0.24	g
Distilled water	1000.00	ml

Dissolve sodium chloride, hydrogenphosphate and sodium sulfate, then sparge solution with 100% N_2 gas for 30 - 45 min to make it anoxic. Add and dissolve carbonates, dispense under 100% N_2 gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. After sterilization add ammonium chloride, magnesium chloride, trace elements, yeast extract, formate, pyruvate, thiosulfate, vitamins and sulfide from sterile anoxic stock solutions prepared under 100% N_2 gas. Stock solutions of vitamins and thiosulfate should be sterilized by filtration. Adjust pH of complete medium to 9.5 - 10.

For DSM 22071: Replace formate and pyruvate with 1.60 g/l Na-acetate as substrate and supplement medium with 3.00 g/l sulfur. For sterilization steam sulfur for 3 hours on each of 3 successive days. Add sulfur aseptically to the autoclaved medium while retaining anoxic conditions.

For DSM 22341: Do not add thiosulfate and sulfide. Replace formate and pyruvate with 2.00 g/l D-glucose as substrate, added after autoclaving from an anoxic stock solution sterilized by filtration

For DSM 22410: Prepare medium without formate and adjust pH of final medium to 9.5.

For DSM 22429: Replace formate and pyruvate with 2.00 g/l D-glucose as substrate, added after autoclaving from anoxic stock solutions sterilized by filtration. Adjust pH of final medium to 9.0 - 9.5

For DSM 24176, DSM 24629: Replace formate and pyruvate with 1.00 g/l D-galacturonic acid sodium salt as substrate, added after autoclaving from an anoxic stock solution sterilized by filtration.

For DSM 24179: Replace formate and pyruvate with 2.00 g/l D-xylose added after

autoclaving from an anoxic stock solution sterilized by filtration.

For DSM 24257, DSM 29847: Replace formate and pyruvate with 1.10 g/l Na-butyrate added after autoclaving from an anoxic stock solution sterilized by filtration.

For DSM 24258: Replace formate and pyruvate with 1.92 g/l Na-propionate added after autoclaving from an anoxic stock solution sterilized by filtration.

For DSM 24400: Replace pyruvate with 0.20 g/l Na-acetate.

For DSM 29990: Replace formate and pyruvate with 20.00 ml/l of a 1 M Na-crotonate solution sterilized by filtration and added after autoclaving (see medium 870).

Trace elements solution (Pfennig & Lippert,1966) (from medium 1369)

EDTA	5.00	g
$FeSO_4$ x 7 H_2O	2.20	g
$ZnSO_4$ x 7 H_2O	0.10	g
$MnCl_2$ x 4 H_2O	0.03	g
H_3BO_3	0.03	g
$CoCl_2$ x 6 H_2O	0.20	g
$CuCl_2$ x 2 H_2O	0.03	g
$NiCl_2$ x 6 H_2O	0.03	g
Na_2MoO_4 x 2 H_2O	0.03	g
Distilled water	1000.00	ml

pH 3.0-4.0

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

Wolin's vitamin solution (10x) (from medium 120)

Biotin	20.00	mg
Folic acid	20.00	mg
Pyridoxine hydrochloride	100.00	mg
Thiamine HCl	50.00	mg
Riboflavin	50.00	mg
Nicotinic acid	50.00	mg
Calcium D-(+)-pantothenate	50.00	mg
Vitamin B_{12}	1.00	mg
p-Aminobenzoic acid	50.00	mg
(DL)-alpha-Lipoic acid	50.00	mg
Distilled water	1000.00	ml