

1210a: THERMOSULFURIMONAS MEDIUM

NaCl	18.00	g
MgCl ₂ x 6 H ₂ O	4.00	g
KCl	0.33	g
CaCl ₂ x 2 H ₂ O	0.33	g
(NH ₄) ₂ SO ₄	0.50	g
Trace element solution SL-10	1.00	ml
Selenite-tungstate solution	1.00	ml
Sodium resazurin (0.1% w/v)	0.50	ml
Na ₂ CO ₃	1.00	g
KH ₂ PO ₄	0.33	g
Na-acetate	1.50	g
Na ₂ S ₂ O ₃ x 5 H ₂ O	3.50	g
Yeast extract	0.20	g
Wolin's vitamin solution (10x)	1.00	ml
Distilled water	1000.00	ml

Dissolve ingredients except carbonate, hydrogenphosphate, vitamins, acetate, thiosulfate and yeast extract, then sparge medium with 80% H₂ and 20% CO₂ gas mixture for 30 - 45 min to make it anoxic. Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Add hydrogenphosphate, vitamins, acetate, thiosulfate and yeast extract from sterile anoxic stock solutions prepared under 100% N₂ gas and carbonate from a sterile anoxic stock solution prepared under 80% N₂ and 20% CO₂ gas mixture. Stock solutions of thiosulfate and vitamins should be sterilized by filtration. The pH of the complete medium should be at 6.5 - 6.8.

For DSM 29363: Prepare medium without acetate, thiosulfate and yeast extract. Supplement medium after autoclaving with 2.50 g/l Fe(III)-citrate added from a sterile anoxic stock solution (10% w/v) prepared under 100% N₂ gas atmosphere. Adjust pH of complete medium to 6.0.

For DSM 100025: Supplement medium with 0.50 g/l Na-pyruvate and replace thiosulfate with 0.50 g/l sodium pyrosulfite (Na₂S₂O₅) added after autoclaving from freshly prepared anoxic stock solutions sterilized by filtration. Adjust pH of complete medium to 6.0 - 6.5.

For DSM 100275: Supplement medium after autoclaving with 1.00 g/l KNO₃ added from a sterile anoxic stock solution prepared under 100% N₂ gas and 5.00 g/l sulfur (powdered) sterilized separately by steaming for 3 hours on each of 3 successive days.

For DSM 104922: Omit acetate and supplement medium after autoclaving with 1.00 g/l KNO₃ added from a sterile anoxic stock solution prepared under 100% N₂ gas.

Trace element solution SL-10 (from medium 320)

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HCl (25%)	10.00	ml
FeCl ₂ x 4 H ₂ O	1.50	g
ZnCl ₂	70.00	mg
MnCl ₂ x 4 H ₂ O	100.00	mg
H ₃ BO ₃	6.00	mg
CoCl ₂ x 6 H ₂ O	190.00	mg
CuCl ₂ x 2 H ₂ O	2.00	mg
NiCl ₂ x 6 H ₂ O	24.00	mg
Na ₂ MoO ₄ x 2 H ₂ O	36.00	mg
Distilled water	990.00	ml

First dissolve FeCl₂ 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 ₂ SeO ₃ x 5 H ₂ O	3.00	mg
Na ₂ WO ₄ x 2 H ₂ O	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