

113: THIOBACILLUS DENITRIFICANS MEDIUM

Solution A	962.00	ml
Solution B	20.00	ml
Solution C	20.00	ml
Solution D	1.00	ml

1. Solutions A, B and D are sterilized separately by autoclaving at 121°C for 15 min under 100% N₂ gas atmosphere. Solution C is sterilized by filtration under an atmosphere of 80% N₂ and 20% CO₂ gas mixture. Appropriate amounts of solutions B to D are added to the sterile solution A in the sequence as indicated.

2. Note: A small amount of white precipitate forms after autoclaving, but this has no negative effect on growth.

Solution A

KH ₂ PO ₄	2.00	g
KNO ₃	2.00	g
NH ₄ Cl	1.00	g
MgSO ₄ x 7 H ₂ O	0.80	g
Trace element solution SL-4	2.00	ml
Agar, for solid medium (optional)	15.00	g
Distilled water	960.00	ml

Adjust pH to 7.0 with NaOH.

Solution B

Na ₂ S ₂ O ₃ x 5 H ₂ O	5.00	g
Distilled water	20.00	ml

Solution C

NaHCO ₃	1.00	g
Distilled water	20.00	ml

Solution D

FeSO ₄ x 7 H ₂ O	2.00	mg
H ₂ SO ₄ (0.1 N)	1.00	ml

Trace element solution SL-4 (from medium 14)

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Na ₂ -EDTA	0.50	g
FeSO ₄ x 7 H ₂ O	0.20	g
ZnSO ₄ x 7 H ₂ O	0.10	g
MnCl ₂ x 4 H ₂ O	0.03	g
H ₃ BO ₃	0.30	g
CoCl ₂ x 6 H ₂ O	0.20	g
CuCl ₂ x 2 H ₂ O	0.01	g
NiCl ₂ x 6 H ₂ O	0.02	g
Na ₂ MoO ₄ x 2 H ₂ O	0.03	g
Distilled water	1000.00	ml

First dissolve EDTA in distilled water and adjust pH to 7.0 using 2 N NaOH; then add other compounds.