

## 113: THIOBACILLUS DENITRIFICANS MEDIUM

Final pH: 7.0 - 7.2

Final volume: 1003 ml

<b>Solution A</b>	962.00	ml
<b>Solution B</b>	20.00	ml
<b>Solution C</b>	20.00	ml
<b>Solution D</b>	1.00	ml

Solutions A, B, and D are sterilized separately by autoclaving at 121°C for 15 min under a 100% N<sub>2</sub> gas atmosphere. Solution C is sterilized by filtration under an atmosphere of 80% N<sub>2</sub> and 20% CO<sub>2</sub> gas mixture. Appropriate amounts of solutions B to D are added to the sterile solution A in the sequence as indicated. Check the pH of the complete medium and adjust it to 7.0 - 7.2, if necessary.

### Solution A

KH <sub>2</sub> PO <sub>4</sub>	2.00	g
KNO <sub>3</sub>	2.00	g
NH <sub>4</sub> Cl	1.00	g
MgSO <sub>4</sub> x 7 H <sub>2</sub> O	0.80	g
<b>Trace element solution SL-4</b>	2.00	ml
Distilled water	960.00	ml

### Solution B

Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> x 5 H <sub>2</sub> O	5.00	g
Distilled water	20.00	ml

### Solution C

Na <sub>2</sub> CO <sub>3</sub>	1.00	g
Distilled water	20.00	ml

### Solution D

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

### Trace element solution SL-4 (from medium 14)

Na <sub>2</sub> -EDTA	0.50	g
FeSO <sub>4</sub> x 7 H <sub>2</sub> O	0.20	g

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ZnSO <sub>4</sub> x 7 H <sub>2</sub> O	0.10	g
MnCl <sub>2</sub> x 4 H <sub>2</sub> O	0.03	g
H <sub>3</sub> BO <sub>3</sub>	0.30	g
CoCl <sub>2</sub> x 6 H <sub>2</sub> O	0.20	g
CuCl <sub>2</sub> x 2 H <sub>2</sub> O	0.01	g
NiCl <sub>2</sub> x 6 H <sub>2</sub> O	0.02	g
Na <sub>2</sub> MoO <sub>4</sub> x 2 H <sub>2</sub> 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.