## **Microorganisms**



## 133: CARBON MONOXIDE OXIDIZER MEDIUM

$Na_2HPO_4 \times 12 H_2O$	4.50	g
$KH_2PO_4$	0.75	g
NH <sub>4</sub> Cl	1.50	g
$MgSO_4 \times 7 H_2O$	0.20	g
CaCl <sub>2</sub> x 2 H <sub>2</sub> O	0.03	g
Ferric ammonium citrate	18.00	mg
Trace element solution SL-6	1.00	ml
Na-acetate (optional)	3.00	g
Agar, for solid medium (optional)	12.00	g
Distilled water	1000.00	ml

- 1. Dissolve ingredients, adjust pH to 7.0 and autoclave.
- 2. For chemoautotrophic growth incubate under a gas atmosphere of a) 20 80% carbon monoxide + 10%  $O_2$  + 70 10%  $N_2$  or b) 70%  $H_2$  + 20%  $O_2$  + 10%  $CO_2$  adding 2.50 g NaHCO<sub>3</sub> per liter of medium.
- 3. For chemoorganotrophic growth add 3.00 g sodium acetate and incubate under air atmosphere.

For <u>DSM 1083</u>: The medium has to be supplemented with 10.00 ml/l of the vitamin solution of medium 141, sterilized by filtration. For chemoorganotrophic growth with acetate under air add also 10.00 ml/l of a 5% w/v NaHCO $_3$  solution, sterilized by filtration.

For <u>DSM 1085</u>: The medium has to be supplemented with 20.00  $\mu$ g/l vitamin B<sub>12</sub>. For chemoorganotrophic growth with acetate under air add also 20.00 ml/l of a 5% w/v NaHCO 3 solution, sterilized by filtration.

For <u>DSM 13294</u>: The medium has to be supplemented with 50.00  $\mu$ g/l para-aminobenzoic acid. For chemoorganotrophic growth under air add also 2.00 g/l Na-pyruvate and 1.00 g/l yeast extract.

## Trace element solution SL-6 (from medium 27)

$ZnSO_4 \times 7 H_2O$	0.10	g
$MnCl_2 \times 4 H_2O$	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
$Na_2MoO_4 \times 2 H_2O$	0.03	g
Distilled water	1000.00	ml