

133. CARBON MONOXIDE OXIDIZER MEDIUM

| | | |
|--|---------|----|
| Na ₂ HPO ₄ x 12 H ₂ O | 4.50 | g |
| KH ₂ PO ₄ | 0.75 | g |
| NH ₄ Cl | 1.50 | g |
| MgSO ₄ x 7 H ₂ O | 0.20 | g |
| CaCl ₂ x 2 H ₂ O | 0.03 | g |
| Ferric ammonium citrate | 18.00 | mg |
| Trace element solution SL-6 (see medium 27) | 1.00 | ml |
| Agar (for solid medium) | 12.00 | g |
| Distilled water | 1000.00 | ml |

Dissolve ingredients, adjust pH to 7.0 and autoclave.

For *chemoautotrophic growth* incubate under a gas atmosphere of a) 20 - 80% **carbon monoxide** + 10% O₂ + 70 - 10% N₂ or b) 70% H₂ + 20% O₂ + 10% CO₂ adding 2.50 g NaHCO₃ per liter of medium.

For *chemoorganotrophic growth* add 3.00 g sodium acetate and incubate under air atmosphere.

For DSM 1083 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 NaHCO₃ solution, sterilized by filtration.

For DSM 1085 the medium has to be supplemented with 20.00 µg/l vitamin B₁₂. For chemoorganotrophic growth with acetate under air add also 20.00 ml/l of a 5% w/v NaHCO₃ solution, sterilized by filtration.

For DSM 13294 the medium has to be supplemented with 50.00 µg/l paraaminobenzoic acid. For chemoorganotrophic growth under air add also 2.00 g/l Na-pyruvate and 1.00 g/l yeast extract.