

280. METHANOCOCCOIDES MEDIUM (N₂/CO₂)

KCl	0.34	g
MgCl ₂ x 6 H ₂ O	4.00	g
MgSO ₄ x 7 H ₂ O	3.45	g
NH ₄ Cl	0.25	g
CaCl ₂ x 2 H ₂ O	0.14	g
K ₂ HPO ₄	0.14	g
NaCl	18.00	g
Trace element solution (see medium 141)	10.00	ml
Fe(NH ₄) ₂ (SO ₄) ₂ x 6 H ₂ O solution (0.1% w/v)	2.00	ml
Na-acetate	1.00	g
Yeast extract (OXOID)	2.00	g
Trypticase peptone (BD BBL)	2.00	g
Na-resazurin solution (0.1% w/v)	0.50	ml
NaHCO ₃	5.00	g
Trimethylamine x HCl	3.00	g
Vitamin solution (see medium 141)	10.00	ml
L-Cysteine-HCl x H ₂ O	0.50	g
Na ₂ S x 9 H ₂ O	0.50	g
Distilled water	1000.00	ml

Dissolve ingredients (except bicarbonate, trimethylamine, vitamins, cysteine and sulfide), sparge medium with 80% N₂ and 20% CO₂ gas mixture for 30 – 45 min to make it anoxic. Add and dissolve bicarbonate and adjust pH to 7.0, then distribute under same gas atmosphere in anoxic Hungate-type tubes or serum vials and autoclave. After sterilization add trimethylamine, cysteine and sulfide from sterile anoxic stock solutions autoclaved under 100% N₂ gas. Vitamins are prepared under N₂ gas atmosphere and sterilized by filtration. Adjust pH of complete medium to 7.0 - 7.2.

For DSM 2831 replace trimethylamine with 5.00 g/l sucrose added from a sterile anoxic stock solution prepared under 100% N₂ gas.

For DSM 4138 replace trimethylamine with 5.00 g/l D-glucose added from a sterile anoxic stock solution prepared under 100% N₂ gas. Use an overpressure of 2 bar of 80% N₂ and 20% CO₂ gas mixture.

For DSM 11916 adjust pH to 6.6.

Continued next page

For [DSM 14042](#) replace trimethylamine with 0.50 ml/l methanol added from a sterile anoxic stock solution prepared under 100% N₂ gas. For incubation use 80% N₂ and 20% CO₂ gas mixture at two atmospheres of pressure.

For [DSM 16625](#) supplement the autoclaved medium with 3.00 g/l Na₂S₂O₃ from an anoxic stock solution prepared under 100% N₂ gas and sterilized by filtration.