

81. MINERAL MEDIUM FOR CHEMOLITHOTROPHIC GROWTH (H-3)

KH ₂ PO ₄	2.30	g
Na ₂ HPO ₄ x 2 H ₂ O	2.90	g
NH ₄ Cl	1.00	g
MgSO ₄ x 7 H ₂ O	0.50	g
NaHCO ₃	0.50	g
CaCl ₂ x 2 H ₂ O	0.01	g
Fe(NH ₄) citrate	0.05	g
Trace element solution SL-6 (see medium 27)	5.00	ml
Distilled water	980.00	ml
Agar (if necessary)	15.00	g

Adjust pH to 6.8.

Autoclave for 15 min at 121°C. Sterilize Fe(NH₄) citrate (0.05 g in 20 ml H₂O) separately and then add to the medium. For chemolithotrophic growth incubate the culture under an atmosphere of 2% (v/v) O₂, 10% CO₂, 60% H₂ and 28% N₂. For heterotrophic growth supplement the mineral medium with an appropriate carbon source (0.2% carbohydrate or 0.1% organic acid). For growth on nitrogen-free medium, omit NH₄Cl and incubate the culture under an atmosphere of 2% (v/v) O₂, 10% CO₂, 10% H₂ and 78% N₂ or heterotrophically under 2% (v/v) O₂ and 98% N₂. For more details see Ref. 1515 and Ref. 3363.

For [DSM 21436](#) adjust pH to 5.0 and use a gas atmosphere of 10% O₂, 10% CO₂, 40% H₂ and 40% N₂ with an overpressure of 2 bar.