

507. CARBOXYDOTHERMUS MEDIUM

KCl	0.33	g
MgCl ₂ x 6 H ₂ O	0.52	g
CaCl ₂ x 2 H ₂ O	0.29	g
NH ₄ Cl	0.33	g
KH ₂ PO ₄	0.33	g
Trace element solution SL-11 (see medium 722)	1.00	ml
Na-resazurin solution (0.1% w/v)	0.50	ml
NaHCO ₃	1.00	g
Yeast extract	0.05	g
Vitamin solution (see medium 141)	10.00	ml
Na ₂ S x 9 H ₂ O	0.70	g
Distilled water	1000.00	ml

Dissolve ingredients except bicarbonate, yeast extract, vitamins and sulfide, then sparge medium with 100% N₂ gas for 30 - 45 min to make it anoxic. Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Add yeast extract, vitamins (sterilized by filtration) and sulfide from sterile anoxic stock solutions prepared under 100% N₂ gas atmosphere and bicarbonate from a sterile anoxic stock solution prepared under 80% N₂ and 20% CO₂ gas mixture. Neutralize the sodium sulfide with sterile H₂SO₄ (see medium 29). After completing the medium adjust pH to 6.8-7.0. Inoculated vessels are pressurized with sterile **carbon monoxide** gas to 2 bar overpressure.

For [DSM 12326](#) supplement medium with 1.00 ml/l selenite-tungstate solution (see medium 385).

For [DSM 19011](#) supplement medium with 0.20 g/l Na-lactate. Change gas phase to 100% **carbon monoxide** prior to inoculation, but do not use excess pressure.

For [DSM 21830](#) adjust pH of complete medium to 6.0.

For [DSM 22663](#) supplement medium with 10.00 g/l sulfur and increase amount of yeast extract to 1.00 g/l. Sulfur is sterilized separately by steaming for 3 h on each of three successive days.

For [DSM 23698](#) supplement medium with 2.00 g/l Na-pyruvate and omit sulfide. Adjust final pH of medium to 6.2. Change gas phase to 100% **carbon monoxide** prior to inoculation, but do not use excess pressure.