

1156. HALOPHILIC METHANOTROPHIC BACTERIUM MEDIUM

H ₂ O	1000.000	ml
MgSO ₄ x 7 H ₂ O	0.100	g
NH ₄ Cl	0.500	g
Na ₂ HPO ₄ x 2 H ₂ O	0.700	g
KH ₂ PO ₄	0.300	g
NaCl	65.000	g
CaCl ₂ x 6 H ₂ O	0.010	g
FeSO ₄ x 7 H ₂ O	0.005	g
Trace Element Solution (see below)	1.000	ml

pH-value 7.2 (Adjust to 7.6 with 10% NaOH before sterilization)

Trace Element Solution:

1 ml of trace element solution contains:

ZnSO ₄ x 7 H ₂ O	0.44	mg
CuSO ₄ x 5 H ₂ O	0.20	mg
MnSO ₄ x 2 H ₂ O	0.17	mg
Na ₂ MoO ₄ x 2 H ₂ O	0.06	mg
H ₃ BO ₃	0.10	mg
CoCl ₂ x 6 H ₂ O	0.08	mg

Culture bottles: 120-ml Serum bottles with 25 ml medium closed with butyl rubber serum caps and aluminium crimps

Gas supply: 2 vol.% CO₂; 20 vol.% CH₄; 78 vol.% air
(Alternate cultivation method: instead of a methane-containing headspace, add 0.5% (w/v) methanol to the medium)

Culture conditions: 30°C; shaking culture on rotary shaker (200 rpm)

Notes

pH is critical, final pH must be between 6.5-7.5;
some insoluble phosphates may precipitate during medium preparation (should not be more than OD 0.005).