



13 - ASW Medium
(Artificial Seawater Medium with Vitamins)
(full strength= ASM30 + V; 25. a brackish/ half-strength = ASM15 + V)
(after J. Brand, from Starr & Zeikus 1993, modified)

Preparation: to 944 mL of glass-distilled water, add 30 g NaCl (half-strength = 15 g NaCl) and 1 g TRIS (SERVA). Then add:

	ml	stock solution g/100 mL H ₂ O
MgSO ₄ · 7H ₂ O	10	24.4
KCl	10	6.0
NaNO ₃	10	10.0
CaCl ₂ · 2H ₂ O	10	3.0
KH ₂ PO ₄	10	0.5
trace element solution	6	

Adjust to pH 8.0 with 1 N HCl.

add (in sterile conditions): vitamin B ₁₂ (*)	0,5 ml/l
vitamin B ₁ (0,12 g/ 100 ml H ₂ O)	0,5 ml/l

(*) prepared in two steps: dilute 100 mg B12 in 100 ml H₂O, than dilute 1 ml of this stock solution in 99 ml H₂O.

trace element solution:

add 0,75 g EDTA (Titrplex III) in 1L deionized water, than add salts in the given order(!):

FeCl ₃ · 6 H ₂ O	97 mg
MnCl ₄ · 4 H ₂ O	41 mg
ZnCl ₂	5 mg
CoCl ₂ · 6 H ₂ O	2 mg
NaMoO ₄ · 2 H ₂ O	4 mg