1011: SULFURIMONAS MJ MEDIUM

NaCl	30.00	g
K_2HPO_4	0.14	g
$CaCl_2$ x 2 H_2O	0.14	g
$MgSO_4$ x 7 H_2O	3.40	g
$MgCl_2$ x 6 H_2O	4.18	g
KCl	0.33	g
NH_4Cl	0.25	g
$Fe(NH_4)_2(SO_4)_2$ x 6 H_2O	0.01	g
Modified Wolin's mineral solution	10.00	ml
$NaHCO_3$	1.50	g
$Na_2S_2O_3$ x 5 H_2O	1.50	g
Wolin's vitamin solution (10x)	1.00	ml
Distilled water	1000.00	ml

1. Dissolve ingredients (except bicarbonate, thiosulfate and vitamins), then sparge medium with 80% N_2 and 20% CO_2 gas mixture for 30 - 45 min to make it anoxic. Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials up to a volume of 20% and autoclave. Add bicarbonate, thiosulfate and vitamins to the autoclaved medium from sterile anoxic stock solutions. Solutions of vitamins and thiosulfate are sterilized by filtration and stored under N_2, whereas the solution of bicarbonate is prepared under 80% N_2 and 20% CO_2 gas mixture and autoclaved. Adjust pH of complete medium to 6.7.

2. After inoculation pressurize vessels to 0.5 bar overpressure with sterile 80% N_2 and 20% CO_2 gas mixture and add sterile air in an amount that is equivalent to a volume of 20% of the headspace.

For DSM 23290: Supplement medium with 2.00 g/l $NaNO_3$. After inoculation pressurize vessels to 1 bar overpressure with sterile 80% N_2 and 20% CO_2 gas mixture. Do not add sterile air!

For DSM 24660: Omit thiosulfate and supplement medium with 4.00 g/l yeast extract and 4.00 g/l Trypton peptone. After autoclaving the medium is reduced with 0.30 g/l Na_2S x 9 H_2O added from a sterile anoxic stock solution (3% w/v) prepared under 100% N_2 gas and the pH adjusted to 6.5. After inoculation pressurize vessels to 1 bar overpressure with sterile 80% N_2 and 20% CO_2 gas mixture. Do not add sterile air!

For DSM 28671: Omit pressurizing vials with 80% N_2 and 20% CO_2 gas mixture.

For DSM 101780, DSM 101688: Supplement medium with 2.00 g/l KNO_3. Do not add overpressure of 80% N_2 and 20% CO_2 and do not add sterile air!

Modified Wolin's mineral solution (from medium 141)

Nitrilotriacetic acid	1.50	g
$MgSO_4$ x 7 H_2O	3.00	g
$MnSO_4$ x H_2O	0.50	g
NaCl	1.00	g
$FeSO_4$ x 7 H_2O	0.10	g
$CoSO_4$ x 7 H_2O	0.18	g
$CaCl_2$ x 2 H_2O	0.10	g
$ZnSO_4$ x 7 H_2O	0.18	g
$CuSO_4$ x 5 H_2O	0.01	g
$AlK(SO_4)_2$ x 12 H_2O	0.02	g
H_3BO_3	0.01	g
Na_2MoO_4 x 2 H_2O	0.01	g
$NiCl_2$ x 6 H_2O	0.03	g
Na_2SeO_3 x 5 H_2O	0.30	mg
Na_2WO_4 x 2 H_2O	0.40	mg
Distilled water	1000.00	ml

First dissolve nitrilotriacetic acid and adjust pH to 6.5 with KOH, then add minerals. Adjust final to pH 7.0 with KOH.

Wolin's vitamin solution (10x) (from medium 120)

Biotin	20.00	mg
Folic acid	20.00	mg
Pyridoxine hydrochloride	100.00	mg
Thiamine HCl	50.00	mg
Riboflavin	50.00	mg
Nicotinic acid	50.00	mg
Calcium D-(+)-pantothenate	50.00	mg
Vitamin B_{12}	1.00	mg
p-Aminobenzoic acid	50.00	mg
(DL)-alpha-Lipoic acid	50.00	mg
Distilled water	1000.00	ml