534: MODIFIED SME MEDIUM

This recipe contains strain-specific modifications for *Persephonella guaymasensis* DSM 14351 *

Final pH: 6.6
Final volume: 1000 ml

NaCl	30.00	g
$MgSO_4 \times 7\ H_2O$	7.00	g
$MgCl_2 \times 6\ H_2O$	5.50	g
KCl	0.65	g
NaBr	0.10	g
NH_4Cl	0.15	g
K_2HPO_4	0.15	g
$CaCl_2 \times 2\ H_2O$	0.50	g
Trace element solution	10.00	ml
Distilled water	1000.00	ml

1. Sparge medium with 100% N_2 gas mixture for 20 min to make it anoxic.

2. Adjust pH to 6.5-6.8 with 1N H_2SO_4.

3. Fill 10 ml of medium in serum bottles (100 ml) under a protective H_2/CO_2 atmosphere and tightly stopper.

4. Autoclave at 121 °C for 15 min.

5. after autoclaving add the following filter-sterilized solutions.

Solution A (gassed with CO_2), 0.3 ml/10ml	30.00	ml/l
Solution B (gassed with N_2), 0.3 ml/10ml	30.00	ml/l

6. apply xx bar H_2/CO_2 (80%/20%) + yy % O_2 (Note: strain specific conditions need to be applied)

7. For more details on the medium see the original description (Huber et al. System. Appl. Microbiol. 15:340-351 (1992)).

* apply 1.5 bar H_2/CO_2 + 4% O_2

Trace element solution (from medium 534)

Modified Wolin's mineral solution II	1000.00	ml

To 1000.0 ml trace element solution in medium 141 add:

$(NH_4)_2Ni(SO_4)_2$	2.00	g
Na_2WO_4	10.00	mg
Na_2SeO_4	10.00	mg

Solution A

$NaHCO_3$	2.00	g
Distilled water	30.00	ml

prepared under CO_2 in an ice-bath, filter-sterilise

Solution B

$Na_2S_2O_3$ x 5 H_2O	2.00	g
Distilled water	30.00	ml

Prepared under N_2,autoclave 121°C, 15 min

Modified Wolin's mineral solution II (from medium 700)

Nitrilotriacetic acid	1.500	g
$MgSO_4$ x 7 H_2O	3.000	g
$MnSO_4$ x H_2O	0.500	g
NaCl	1.000	g
$FeSO_4$ x 7 H_2O	0.100	g
$CoSO_4$ x 7 H_2O	0.180	g
$CaCl_2$ x 2 H_2O	0.100	g
$ZnSO_4$ x 7 H_2O	0.180	g
$CuSO_4$ x 5 H_2O	0.010	g
$AlK(SO_4)_2$ x 12 H_2O	0.020	g
H_3BO_3	0.010	g
Na_2MoO_4 x 2 H_2O	0.010	g
$NiCl_2$ x 6 H_2O	0.025	g
Na_2SeO_3 x 5 H_2O	0.300	mg
Distilled water	1000.000	ml

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