## **Microorganisms**



## Main sol. 1011c

NaCl	30.00	g
K <sub>2</sub> HPO <sub>4</sub>	0.14	g
CaCl <sub>2</sub> x 2 H <sub>2</sub> O	0.14	g
$MgSO_4 \times 7 H_2O$	3.40	g
$MgCl_2 \times 6 H_2O$	4.18	g
KCI	0.33	g
NH <sub>4</sub> Cl	0.25	g
$Fe(NH_4)_2(SO_4)_2 \times 6 H_2O$	0.01	g
Modified Wolin's mineral solution	10.00	ml
Na <sub>2</sub> CO <sub>3</sub>	1.50	g
Na-pyruvate	0.50	g
Na-lactate	0.50	g
Yeast extract	0.10	g
$Na_2S_2O_3 \times 5 H_2O$	1.50	g
Wolin's vitamin solution (10x)	1.00	ml
Na-dithionite solution (5% w/v)	1.00	ml
Distilled water	1000.00	ml

- 1. Dissolve ingredients (except carbonate, pyruvate, lactate, yeast extract, thiosulfate, vitamins and dithionite), then sparge medium with 80%  $H_2$  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 pyruvate, lactate, yeast extract, thiosulfate and vitamins to the autoclaved medium from sterile anoxic stock solutions prepared under 100%  $N_2$  gas and carbonate and dithionite from sterile anoxic stock solutions prepared under 80%  $N_2$  and 20%  $CO_2$  gas mixture. Solutions of vitamins, thiosulfate and dithionite are sterilized by filtration. Adjust pH of the complete medium to 6.7.
- 2. After inoculation pressurize vessels to 2 bar overpressure with sterile 80%  $H_2$  and 20%  $CO_2$  gas mixture.