

## 1166. DESULFONATRONUM THIOAUTOTROPHICUM MEDIUM

NaCl	6.00	g
K <sub>2</sub> HPO <sub>4</sub>	1.00	g
Na <sub>2</sub> SO <sub>4</sub>	2.80	g
NaHCO <sub>3</sub>	8.00	g
Na <sub>2</sub> CO <sub>3</sub>	22.00	g
NH <sub>4</sub> Cl	0.20	g
MgCl <sub>2</sub> x 6 H <sub>2</sub> O	0.20	g
Trace elements solution (see medium 1369)	1.00	ml
Selenite-tungstate solution (see medium 385)	1.00	ml
Yeast extract	0.05	g
Vitamin solution (see medium 141)	10.00	ml
Na-formate	3.40	g
Na-pyruvate	0.55	g
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> x 5 H <sub>2</sub> O	5.00	g
Na <sub>2</sub> S x 9 H <sub>2</sub> O	0.24	g
Distilled water	1000.00	ml

Dissolve sodium chloride, hydrogenphosphate and sodium sulfate, then sparge solution with 100% N<sub>2</sub> gas for 30 – 45 min to make it anoxic. Add and dissolve carbonates, dispense under 100% N<sub>2</sub> gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. After sterilization add ammonium chloride, magnesium chloride, trace elements, yeast extract, vitamins, formate, pyruvate, thiosulfate and sulfide from sterile anoxic stock solutions prepared under 100% N<sub>2</sub> gas. Stock solutions of vitamins and thiosulfate should be sterilized by filtration. Adjust pH of complete medium to 9.5 - 10.

For [DSM 22071](#) replace formate and pyruvate with 1.60 g/l Na-acetate as substrate and supplement medium with 3.00 g/l sulfur. For sterilization steam sulfur for 3 hours on each of 3 successive days. Add sulfur aseptically to the autoclaved medium while retaining anoxic conditions.

For [DSM 22410](#) prepare medium without formate and adjust pH of final medium to 9.5.

For [DSM 22429](#) replace formate and pyruvate with 2.00 g/l D-glucose as substrate, added after autoclaving from anoxic stock solutions sterilized by filtration. Adjust pH of final medium to 9.0 - 9.5

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For [DSM 24176](#) and [DSM 24629](#) replace formate and pyruvate with 1.00 g/l D-galacturonic acid sodium salt as substrate, added after autoclaving from an anoxic stock solution sterilized by filtration.

For [DSM 24179](#) replace formate and pyruvate with 2.00 g/l D-xylose added after autoclaving from an anoxic stock solution sterilized by filtration.

For [DSM 24257](#) and [DSM 29847](#) replace formate and pyruvate with 1.10 g/l Na-butyrate added after autoclaving from an anoxic stock solution sterilized by filtration.

For [DSM 24258](#) replace formate and pyruvate with 1.92 g/l Na-propionate added after autoclaving from an anoxic stock solution sterilized by filtration.

For [DSM 24400](#) replace pyruvate with 0.20 g/l Na-acetate.

For [DSM 29990](#) replace formate and pyruvate with 20.00 ml/l of a 1 M Na-crotonate solution sterilized by filtration and added after autoclaving (see medium 870).