

## 195a. DESULFUROMUSA MEDIUM

### Solution A:

|  |        |    |
|--|--------|----|
| Na <sub>2</sub> SO <sub>4</sub>              | 3.00   | g  |
| KH <sub>2</sub> PO <sub>4</sub>              | 0.20   | g  |
| NH <sub>4</sub> Cl                           | 0.30   | g  |
| NaCl   | 21.00  | g  |
| MgCl <sub>2</sub> x 6 H <sub>2</sub> O       | 3.10   | g  |
| KCl  | 0.50   | g  |
| CaCl <sub>2</sub> x 2 H <sub>2</sub> O       | 0.15   | g  |
| Selenite-tungstate solution (see medium 385) | 1.00   | ml |
| Na-resazurin solution (0.1% w/v)             | 0.50   | ml |
| Distilled water                              | 920.00 | ml |

### Solution B:

|   |      |    |
|---|------|----|
| Trace element solution SL-10 (see medium 320) | 1.00 | ml |
|---|------|----|

### Solution C:

|                                 |       |    |
|---------------------------------|-------|----|
| Na <sub>2</sub> CO <sub>3</sub> | 2.50  | g  |
| Distilled water                 | 50.00 | ml |

### Solution D:

|                           |       |    |
|---------------------------|-------|----|
| Na <sub>2</sub> -fumarate | 2.50  | g  |
| Distilled water           | 10.00 | ml |

### Solution E:

|                                   |       |    |
|-----------------------------------|-------|----|
| Vitamin solution (see medium 141) | 10.00 | ml |
|-----------------------------------|-------|----|

### Solution F:

|  |       |    |
|--|-------|----|
| Na <sub>2</sub> S x 9 H <sub>2</sub> O | 0.40  | g  |
| Distilled water                        | 10.00 | ml |

*Solution A* is sparged with 80% N<sub>2</sub> and 20% CO<sub>2</sub> gas mixture to reach a pH below 6 (at least 30 min), then distributed under the same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclaved. *Solutions B, D* and *F* are autoclaved separately under 100% N<sub>2</sub> gas. *Solution C* is autoclaved under 80% N<sub>2</sub> and 20% CO<sub>2</sub> gas atmosphere. *Solution E* is prepared under 100% N<sub>2</sub> gas atmosphere and sterilized by filtration. To complete the medium appropriate amounts of *solutions B* to *F* are added to the sterile *solution A* in the sequence as indicated. Final pH of the medium should be 7.1 - 7.4.

*Note: Addition of 10 - 20 mg sodium dithionite per liter (e.g. from 5% (w/v) solution, freshly prepared under N<sub>2</sub> and filter-sterilized) may stimulate growth at the beginning. For transfers use 5 - 10% (v/v) inoculum.*