**Selenite F Broth**

**DM210.** An enrichment medium for the primary isolation of *Salmonella* species.

**Contents:** See pack label.

**Formulation***

<table>
<thead>
<tr>
<th>Material:</th>
<th>Concentration in medium:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptone mixture</td>
<td>5.0g/litre</td>
</tr>
<tr>
<td>Lactose</td>
<td>4.0g/litre</td>
</tr>
<tr>
<td>Sodium phosphate</td>
<td>10.0g/litre</td>
</tr>
<tr>
<td>Sodium hydrogen selenite</td>
<td>4.0g/litre</td>
</tr>
</tbody>
</table>

Final pH: 7.1 ± 0.2

**Storage and shelf life**

All containers should be kept tightly closed and stored in a dry place at 25°C or below until the expiry date shown on the pack label. Certain media may require storage at 2-8°C, refer to pack label.

**Precautions**

For *in vitro* diagnostic use only. Observe approved hazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet (available on request or via MAST website).

Selenite F Broth has the following safety labels:

- R20/22: Harmful by inhalation and if swallowed.
- R33: Danger of cumulative effects.
- R51/S3: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S28: After contact with skin, wash immediately with plenty of water.
- S44: If you feel unwell, seek medical advice (show the label where possible).
- S61: Avoid release to the environment. Refer to special instructions/safety data sheet.

**Materials required but not provided**

Standard microbiological supplies and equipment such as loops, MAST selective supplements, swabs, applicator sticks, incinerators and incubators, etc., as well as serological and biochemical reagents and additives such as blood.

**Procedure**

1. Refer to pack label for quantities and volumes required. Prepare MAST Selenite F Broth (DM210) by suspending the powder in distilled or deionised water.

2. Heat gently to dissolve.

3. Dispense into suitable containers (bottles or tubes). A depth of at least 5cm is recommended, as salmonellae survive better at low oxygen tensions.

4. Sterilise by boiling in a water bath or steaming, for 10 minutes.

5. A yellow precipitate may form. This does not effect the growth properties of the medium. Over heating the medium will give an orange precipitate and may effect the properties of the medium. DO NOT AUTOCLAVE.

6. Inoculate with faeces directly. Urines are best examined by the addition of an equal volume to double strength Mast Selenite F Broth.

7. Incubate at 35-43°C for 12-24 hours.

**Interpretation of results**

After incubation record growth of organisms, indicated by turbidity in the medium.

**Quality control**

The list below illustrates a range of performance control strains in routine use, which can also be easily obtained as MAST QC STICKS™ by the end user:

<table>
<thead>
<tr>
<th>Test Organisms</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Salmonella typhimurium</em> ATCC 14028</td>
<td>Growth</td>
</tr>
<tr>
<td><em>Escherichia coli</em> ATCC 25922</td>
<td>Partial to marked inhibition</td>
</tr>
</tbody>
</table>

User quality control: Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate expected performance. Do not use the product if the result with the control organism is incorrect.

**References**

Bibliography available on request.

*Formulation may change to meet performance criteria*