Tryptone Water Broth w/ BCP

Tryptone Water Broth is used for the cultivation of Salmonella species from foods.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casein enzymic hydrolysate</td>
<td>10.000</td>
</tr>
<tr>
<td>Dextrose</td>
<td>5.000</td>
</tr>
<tr>
<td>Dipotassium phosphate</td>
<td>1.250</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>1.000</td>
</tr>
<tr>
<td>Bromocresol purple</td>
<td>0.040</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.0±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters**

**Directions**

Suspend 17.29 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle And Interpretation**

Examination of various types of food products for presence of Salmonella requires methods different from those used in clinical laboratories. The need for such method is due to the generally low numbers of Salmonellae in foods and the frequently poor physiological state of these pathogens following exposure to stressful conditions during food processing or storage. Injured or debilitated Salmonella are resuscitated in a non-selective broth medium. Although qualitative recovery of foodborne Salmonella is generally sought, the analytical approach used in conventional methods can be adapted for the enumeration of Salmonella by MPN techniques (2). It is generally accepted that pre-enrichment of processed foods in a non-selective broth medium facilitates detection of sublethally injured Salmonella. The ideal pre-enrichment broth should provide for the repair of cell damage, dilute toxic or inhibitory substances and be of such nutritive capacity so as to favour a better growth of Salmonella. In the analysis of foods for Salmonella, the pre-enriched cultures are transferred to an enrichment broth and further streaked on one or more selective media.

Tryptone Water Broth w/BCP is recommended and prepared as per APHA (1) for cultivating Salmonella species from foods.

Casein enzymic hydrolysate and yeast extract provide the essential nitrogenous compounds, vitamin B complex and other growth nutrients for the growth of Salmonellae. Dextrose is the fermentable carbohydrate. Bromocresol purple is the pH indicator. The medium is buffered by dipotassium phosphate.

**Quality Control**

**Appearance**

Cream to pale green homogeneous free flowing powder

**Colour and Clarity of prepared medium**

Purple coloured clear solution without any precipitate.

**Reaction**

Reaction of 1.73% w/v aqueous solution at 25°C. pH : 7.0±0.2

**pH**

6.80-7.20

**Cultural Response**

M1198: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Color of medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Response</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Salmonella Enteritidis ATCC 13076
Salmonella Typhimurium ATCC 14028

Storage and Shelf Life
Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference