Salmonella Selective Enrichment Broth base

**Intended Use:**
Recommended for selective isolation and differentiation of *Salmonella* species.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptone</td>
<td>5.000</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>5.000</td>
</tr>
<tr>
<td>Buffer mixture</td>
<td>10.000</td>
</tr>
<tr>
<td>Growth mixture</td>
<td>5.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.0±0.2</td>
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</tbody>
</table>

**Directions**

Suspend 25 grams in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add the rehydrated contents of one vial of Salmonella Selective Enrichment Supplement (FD275). Mix well and dispense as desired.

**Principle And Interpretation**

*Salmonella* are ubiquitous in the environment. These organisms are usually present in small numbers compared to coliforms; therefore it is necessary to examine a relatively large sample to isolate the organisms (1). *Salmonella* present in food samples may be sublethally damaged during various stages of food processing where they may be exposed to low temperatures, heat drying, radiations, various chemicals (2). These damaged cells are able to cause spoilage, and if ingested cause diseases under favourable conditions. Therefore it is important to resuscitate these damaged bacteria before enumeration.

Salmonella Enrichment Broth Base is recommended for the selective enrichment of *Salmonella* species within 18-24 hours.

**Type of specimen**

Food samples.

**Specimen Collection and Handling**

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (5). After use, contaminated materials must be sterilized by autoclaving before discarding.

**Warning and Precautions**

Read the label before opening the container. Wear protective gloves/protection clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

**Limitations**

1. Further biochemical testing on pure colony is required for complete identification of organisms.

**Performance and Evaluation**

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.
Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and clarity of prepared medium
Light yellow coloured clear solution without any precipitate

Reaction
Reaction of 2.5% w/v aqueous solution 25°C. pH : 7.0±0.2

Cultural Response
Cultural characteristics observed with added Salmonella Selective Enrichment Supplement (FD275) after an incubation at 35-37°C for 18-24 hours.

Organism | Inoculum (CFU) | Growth
--- | --- | ---
*Salmonella Typhimurium* ATCC 14028 (00031*) | 50-100 | good-luxuriant
*Salmonella Enteritidis* ATCC 13076 (00030*) | 50-100 | good-luxuriant
*Salmonella Abony* NCTC 6017 (00029*) | 50-100 | good-luxuriant
*Staphylococcus aureus subsp. aureus* ATCC 25923 (00034*) | >=10⁴ | inhibited

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life
Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label.

Product performance is best if used within stated expiry period.

Disposal
User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

Disclaimer:
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