Modified Buffered Peptone Water with Imbentin (Twin Pack)  M1747

Intended Use:
Recommended as pre-enrichment medium of injured *Salmonella* species from food prior to selective enrichment and isolation.

Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>-</td>
</tr>
<tr>
<td>Proteose peptone</td>
<td>10.000</td>
</tr>
<tr>
<td>Disodium hydrogen phosphate</td>
<td>7.000</td>
</tr>
<tr>
<td>Potassium dihydrogen phosphate</td>
<td>3.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Part B</td>
<td>-</td>
</tr>
<tr>
<td>Imbentin (Nonidet)</td>
<td>2.250(ml)</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 25.00 grams of part A in 1000 ml purified / distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Steam up 2.25ml of part B in appropriate container, up right with lid slightly loosened in either water bath or autoclave at 15 lbs pressure (121°C) for 15 minutes. Cool to 40 to 45°C, aseptically add Part B to sterile Part A. Mix well and dispense as desired.

Principle And Interpretation
Edel and Kampelmacher (3) noted that sublethal injury to *Salmonella* may occur in many food preservation processes. Enriching injured cells in Lactose broth (pH 6.9) may be further detrimental to their recovery (2). Pre-enrichment in modified Buffered Peptone Water with imbentin (M1747) at 35°C for 18-24 hours results in repair of injured cells.
Inoculate 10 grams specimen in 50 ml of this medium and incubate at 35°C for 18 hours. Transfer 10 ml from this medium to 100 ml of Tetrathionate Broth (M032) and incubate at 43°C for 24 - 48 hours and then subculture on selective plating media. Examine the plates for colonies of *Salmonella* species.

Type of specimen
Food and dairy samples

Specimen Collection and Handling
For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,6,7). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions
Read the label before opening the container. Wear protective gloves/protective 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. Recovery on selective media is necessary for further analysis.
2. Biochemical and serological tests must be carried out for complete identification.

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.

Please refer disclaimer Overleaf.
Quality Control

Appearance
Part A : Cream to yellow homogeneous free flowing powder Part B : Colourless viscous liquid

Colour and Clarity of prepared medium
Light yellow coloured, clear solution without any precipitate.

Reaction
Reaction of 2.5% w/v Part A and 0.225% w/v Part B at 25°C. pH : 7.0±0.2

pH
6.80-7.20

Cultural Response
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>
</tr>
</thead>
<tbody>
<tr>
<td>Salmonella Choleraesuis ATCC 12011</td>
<td>50-100</td>
<td>good</td>
</tr>
<tr>
<td>Salmonella Enteritidis ATCC 13076 (00030*)</td>
<td>50-100</td>
<td>good</td>
</tr>
<tr>
<td>Salmonella Typhimurium ATCC 14028 (00031*)</td>
<td>50-100</td>
<td>good</td>
</tr>
</tbody>
</table>

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life
Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°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 (4,5).

Reference

Disclaimer:
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