**Potato Infusion Broth**

### Intended Use:
Recommended for isolation of *Brucella* species.

### Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato infusion from</td>
<td>200.000</td>
</tr>
<tr>
<td>Peptone</td>
<td>10.000</td>
</tr>
<tr>
<td>HM peptone B #</td>
<td>5.000</td>
</tr>
<tr>
<td>Dextrose (Glucose)</td>
<td>10.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>6.8±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters

# Equivalent to Beef extract

### Directions
Suspend 34.0 grams in 1000 ml of purified / distilled water containing 20 ml of glycerol. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks or as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### Principle And Interpretation
*Brucella* is a strictly aerobic, gram-negative coccobacilli which causes Brucellosis. This organism is sometimes carried by animals and only causes incidental infections in humans. Infection usually occurs due to consumption of contaminated milk, meat or direct contact. Potato Infusion Broth is used for the isolation of *Brucella* species (2). It is also used for the cultivation of *Brucella* species in large scale for antigen and vaccine preparation. This medium enables *Brucella* species to form typical colonies when isolated from infected materials.

Potato Infusion Broth contains infusion of Potato, Peptone and HM peptone B which provide necessary nutrients required for the growth of *Brucella*. Dextrose (Glucose) serves as source of energy and sodium chloride maintains the osmotic equilibrium of the medium.

### Type of specimen
Dairy samples - Milk samples.

### Specimen Collection and Handling
For dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,5). After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions
Read the label before opening the container. Wear protective gloves/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. Some strains may show poor growth due to nutritional variations.
2. Further biochemical and serological tests must be carried out for further 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
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Yellow coloured clear to slightly opalescent gel forms in Petri plates.

Reaction
Reaction of 3.4% w/v aqueous solution (containing 2% v/v Glycerol) at 25°C. pH : 6.8±0.2
pH
6.60-7.00

Cultural Response
Cultural characteristics observed after an incubation at 35 - 37°C for 24 - 72 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bordetella bronchiseptica ATCC 4617</td>
<td>50-100</td>
<td>luxuriant</td>
</tr>
<tr>
<td>Brucella melitensis ATCC 4309</td>
<td>50-100</td>
<td>luxuriant</td>
</tr>
<tr>
<td>Brucella suis ATCC 6597</td>
<td>50-100</td>
<td>luxuriant</td>
</tr>
<tr>
<td>Streptococcus pneumoniae ATCC 6303</td>
<td>50-100</td>
<td>luxuriant</td>
</tr>
</tbody>
</table>

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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference