**Universal Fastidious Culture Broth**

**Intended Use:**
Recommended for the cultivation of fastidious microorganisms when enriched with blood.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casitose ▲</td>
<td>7.000</td>
</tr>
<tr>
<td>HM peptone #</td>
<td>5.000</td>
</tr>
<tr>
<td>Gelatine petone</td>
<td>5.000</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>3.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.2±0.2</td>
</tr>
</tbody>
</table>

**Directions**
Suspend 25 grams in 1000ml purified / distilled water. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle And Interpretation**
Universal Fastidious Culture Broth is a basic culture media for cultivation of fastidious organisms. It is non-selective media useful in routine cultivation of microorganisms. Addition of different biological fluids such as horse or sheep blood, serum, egg yolk etc. makes it suitable for the cultivation of related fastidious organisms.

Casitose, HM peptone, gelatin peptone and yeast extract provide the necessary nitrogen, carbon compounds, long chain amino acids, vitamins and also some trace ingredients necessary for the growth of bacteria. Sodium chloride maintains the osmotic equilibrium of the medium.

**Type of specimen**
Food & dairy samples; Water samples; soil samples.

**Specimen Collection and Handling**
For Food & dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,5,7).
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (2).
For soil samples, follow appropriate techniques for sample collection and processing as per guidelines (6).
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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

**Limitations**
1. Further biochemical and serological tests must be carried out for complete identification.
2. The medium may not support the growth of highly fastidious organisms like *Haemophilus*, *Brucella* and *Neisseria*.

**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.

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*Please refer disclaimer Overleaf.*
Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light yellow coloured clear to slightly opalescent solution

pH
7.00-7.40

Cultural response
Cultural characteristics was observed after an incubation at 30-35°C for 18-48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Streptococcus pyogenes</em> ATCC 19615</td>
<td>50 -100</td>
<td>luxuriant</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em> subsp. aureus ATCC 25923 (00034*)</td>
<td>50 -100</td>
<td>luxuriant</td>
</tr>
<tr>
<td><em>Escherichia coli ATCC</em> 25922 (00013*)</td>
<td>50 -100</td>
<td>luxuriant</td>
</tr>
<tr>
<td><em>Enterococcus faecalis ATCC</em> 50 -100</td>
<td>luxuriant</td>
<td></td>
</tr>
<tr>
<td><em>Escherichia coli ATCC</em> 25922 (00013*)</td>
<td>50 -100</td>
<td>luxuriant</td>
</tr>
<tr>
<td><em>Pseudomonas aeruginosa</em> ATCC 27853 (00025*)</td>
<td>50 -100</td>
<td>luxuriant</td>
</tr>
<tr>
<td><em>Shigella flexneri ATCC</em> 12022 (00126*)</td>
<td>50 -100</td>
<td>luxuriant</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 (3,4).

Reference