Gelatin Phosphate Buffer

Gelatin Phosphate buffer is recommended for toxin detection in food products when *Clostridium botulinum* is suspected.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium dihydrogen phosphate</td>
<td>4.000</td>
</tr>
<tr>
<td>Gelatin</td>
<td>2.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>6.2±0.1</td>
</tr>
</tbody>
</table>

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

**Directions**

Suspend 6.0 grams in 1000 ml distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

**Principle And Interpretation**

Botulinum toxin (botox) types A-G are produced by heterogeneous stains of *Clostridium botulinum*. Botox types A,B,E and F have caused serious and sometimes fatal, cases of food borne illness in humans. The vast majority of botulinum outbreaks in red meat and poultry products have involved either toxin A or B.

The current botulinum toxin test method is the mouse bioassay procedure (1). Gelatin Phosphate Buffer is one of the reagent used in this test method.

**Quality Control**

**Appearance**

Cream to yellow coloured homogeneous coarse powder

**Gelling**

Semisolid comparable with 0.2% gelatine

**Colour and Clarity of prepared medium**

Colourless clear solution forms in tubes.

**Reaction**

Reaction of 0.6% w/v aqueous solution at 25°C. pH: 6.2±0.1

**pH**

6.10-6.30

**Cultural Response**

M1359: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Gelatinase reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Clostridium botulinum</em> ATCC 25763</td>
<td>50-100</td>
<td>good</td>
<td>Positive reaction</td>
</tr>
</tbody>
</table>

**Storage and Shelf Life**

Store below 30°C in tightly closed container and use freshly prepared medium. Use before expiry date on the label.

**Reference**

Disclaimer:

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