Certified Peptone

Principle And Interpretation

Certified Peptone is manufactured under controlled condition with ultra-filtration to control endotoxin in the final product. It serves as a source of organic nitrogen. Recommended as a growth factor for cell culture and fermentation processes.

Quality Control

Appearance
Off-white to yellow homogenous free flowing powder, having characteristic odour but not putrescent.

Solubility
Freely soluble in distilled water, insoluble in alcohol and ether.

Clarity
1% w/v aqueous solution remains clear without haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Reaction
Reaction of 2% w/v aqueous solution at 25°C.

pH
6.10-7.10

Microbial Load:

Total aerobic microbial count (cfu/gm)
By plate method when incubated at 30-35°C for not less than 3 days.
Bacterial Count : <= 2000 CFU/gram

Total Yeast and mould count (cfu/gm)
By plate method when incubated at 20-25°C for not less than 5 days.
Yeast & mould Count : <= 100 CFU/gram

Test for Pathogens

Indole Test
Tryptophan content: Passes

Cultural response
Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Nutrient Agar (M001) using Certified Peptone (CR031) as an ingredient.

Cultural Response

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escherichia coli ATCC 25922</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 27853</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Staphylococcus aureus ATCC 25923</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Salmonella Typhi ATCC 6539</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Streptococcus pyogenes ATCC 19615</td>
<td>Luxuriant</td>
</tr>
</tbody>
</table>
Chemical Analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nitrogen</td>
<td>&gt;= 11.0%</td>
</tr>
<tr>
<td>Amino Nitrogen</td>
<td>&gt;= 3.50%</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>&lt;= 5.0%</td>
</tr>
<tr>
<td>Loss on drying</td>
<td>&lt;= 5.0%</td>
</tr>
<tr>
<td>Residue on ignition</td>
<td>&lt;= 12%</td>
</tr>
</tbody>
</table>

Storage and Shelf Life

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources. Seal the container tightly after use.