HM Peptone Type T

Principle And Interpretation
HM Peptone Type T is manufactured under controlled conditions and processed to retain all nutritive value. It is obtained by proteolytic activity of trypsin. Recommended for mass scale cultivation of microorganisms for production of antibiotics, vitamins, enzymes etc. It is equivalent to Meat Peptone Type T.

Quality Control

Appearance
Light yellow to brownish yellow homogenous free flowing powder, having characteristic odour but not putrescent.

Solubility
Freely soluble in distilled/purified water, insoluble in alcohol.

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
6.50 - 7.50

Indole Test
Tryptophan content: Passes

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
1. Escherichia coli-Negative in 10 gms of sample
2. Salmonella species-Negative in 10 gms of sample
3. Pseudomonas aeruginosa-Negative in 10 gms of sample
4. Staphylococcus aureus- Negative in 10 gms of sample
5. Candida albicans- Negative in 10 gms of sample
6. Clostridia- Negative in 10 gms of sample

Cultural response
Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Nutrient Agar (M001) using HM Peptone Type T 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>

Please refer disclaimer Overleaf.
Chemical Analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nitrogen</td>
<td>&gt;= 12.0%</td>
</tr>
<tr>
<td>Amino Nitrogen</td>
<td>&gt;= 3.50%</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>&lt;= 6.0%</td>
</tr>
<tr>
<td>Loss on drying</td>
<td>&lt;= 5.0%</td>
</tr>
<tr>
<td>Residue on ignition</td>
<td>&lt;= 15.0%</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 of ignition. Seal the container tightly after use.