Intended use
Recommended for presumptive identification of coliforms from variety of specimens such as water, milk and food etc.

Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>HiVeg™ peptone</td>
<td>23.000</td>
</tr>
<tr>
<td>Lactose</td>
<td>10.000</td>
</tr>
<tr>
<td>Synthetic detergent No. V</td>
<td>2.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Bromo cresol purple</td>
<td>0.010</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.4±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters

Directions
Suspend 40 grams in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium and distribute into test tubes filled with inverted Durham tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50ºC.

Principle And Interpretation
MacConkey HiVeg™ Broth Purple w/ BCP is prepared by incorporating vegetable peptone in place of animal peptones which makes the medium free of BSE/TSE risks. This medium is modification of MacConkey Broth, purple which is the earliest selective and differential medium for cultivation of enteric microorganisms from a variety of clinical, food and water specimens (3, 4, 7, 2).

Medium contains HiVeg™ peptone, synthetic detergents, sodium chloride and bromo cresol purple. HiVeg™ peptone provides nitrogenous compounds, peptides, amino acids, carbonaceous compounds and vitamins. The selective action of this medium is attributed to synthetic detergent, which is inhibitory to most species of gram-positive bacteria. Gram-negative bacteria grow well on the medium and are differentiated by their ability to ferment lactose. Lactose fermenting strains turn the medium yellow. The yellow colour is due to production of acid from lactose, absorption of bromo cresol purple and a subsequent colour change of the dye when the pH of medium falls below 6.8. Lactose non-fermenting strains, such as Shigella and Salmonella do not alter appearance of the medium. Liquid specimens are directly inoculated while solids have to be homogenized in appropriate diluents such as physiological saline, phosphate buffers, etc. The inoculation must be effected at 10% v/v in Durhams tubes. If the inoculum is greater than 1 ml, it is necessary to use the medium at double strength, inoculating equal volumes of specimen and medium.

Type of specimen
Food and dairy samples; water samples, Clinical samples - stool samples.

Specimen Collection and Handling
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).
For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,7,8).
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (2). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions
In Vitro diagnostic Use only. 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.

Please refer disclaimer Overleaf.
Limitations:
1. This medium may not support the growth of fastidious organisms like *Neisseria gonorrhoeae, Gardnerella vaginalis, Chlamydia, Ureaplasma.*
2. Further biochemical testing on pure cultures is required for complete 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.

Quality Control

Appearance
Cream to greenish yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Purple coloured clear to slightly opalescent solution forms in tubes

Reaction
Reaction of 4.0% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH
7.20-7.60

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

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Cultural Response
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<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Acid production</th>
<th>Gas production</th>
</tr>
</thead>
<tbody>
<tr>
<td># Klebsiella aerogenes ATCC 13048 (00175*)</td>
<td>50-100</td>
<td>luxuriant</td>
<td>positive reaction, yellow reaction</td>
<td>positive reaction, yellow reaction</td>
</tr>
<tr>
<td><em>Escherichia coli ATCC 25922 (00013</em>)</td>
<td>50-100</td>
<td>luxuriant</td>
<td>positive reaction, yellow reaction</td>
<td>positive reaction, yellow reaction</td>
</tr>
<tr>
<td>*Salmonella Choleraesuis ATCC 12011</td>
<td>50-100</td>
<td>fair-good</td>
<td>negative reaction</td>
<td>negative reaction</td>
</tr>
<tr>
<td>Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)</td>
<td>&gt;=10⁴</td>
<td>inhibited</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Escherichia coli ATCC 8739 (00012</em>)</td>
<td>50-100</td>
<td>luxuriant</td>
<td>positive reaction, yellow reaction</td>
<td>positive reaction, yellow reaction</td>
</tr>
<tr>
<td>*Escherichia coli NCTC 9002</td>
<td>50-100</td>
<td>luxuriant</td>
<td>positive reaction, yellow reaction</td>
<td>positive reaction, yellow reaction</td>
</tr>
<tr>
<td>Staphylococcus aureus subsp. aureus ATCC 6538 (00032*)</td>
<td>&gt;=10³</td>
<td>inhibited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staphylococcus aureus NCIMB 9518</td>
<td>&gt;=10⁴</td>
<td>inhibited</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key : (*) Corresponding WDCM numbers. (#) Formerly known as *Enterobacter aerogenes*

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.

Please refer disclaimer Overleaf.
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


Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.