Peptone Water BIS

Intended Use
Peptone Water is a non-selective medium used for cultivating non-fastidious organisms and a base for carbohydrate fermentation media in compliance with BIS specification IS:5887 (Part 1):1976.

Summary
Peptone Water BIS is used for biochemical tests such as determining carbohydrate fermentation pattern, which help in differentiation of genera and species. With the pH adjusted to 8.4 it is suitable for the cultivation and enrichment of *Vibrio cholerae* Adding Andrade indicator and the test carbohydrate to detect the fermentation reactions may modify Peptone Water BIS.

Principle
Peptone provides the essential nutrients while sodium chloride maintains the osmotic equilibrium. Added Andrade's indicator acts as a pH indicator, which shows a colour change of the medium from yellow to pink in the presence of an acid.

Formula*
Ingredients	**g/L**
Peptone	20.0
Sodium Chloride	5.0
Final pH (at 25°C)	7.4 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2ºC-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 25.00 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Warm slightly with frequent agitation to dissolve the powder completely.
4. Dispense in tubes with or without Durham's tubes as desired.
5. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Cream to yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Light yellow coloured, clear solution without any precipitate.
Cultural Response: Cultural characteristics observed after an incubation of 18 - 24 hours at 35°C-37°C.

Organisms (ATCC)	**Growth**	**Indole Test**
Escherichia coli (25922)	Good	Positive reaction, Red ring at the interface of the medium
Salmonella enterica subsp. *enterica* serovar *Typhimurium* (23564)	Good	Negative reaction, No red ring at the interface of the medium
Staphylococcus aureus subsp. *aureus* (25923)	Good	Negative reaction, No red ring at the interface of the medium

Interpretation of Results

Acid is produced when carbohydrates are fermented which is indicated by a pink colour in the medium and gas production is detected by formation of gas bubbles in the Durham's tubes.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions / Limitations

1. A pure culture in Peptone Water is a convenient inoculum.
2. Each tube of Peptone Water with carbohydrate should be correctly coded for the contained carbohydrate.
3. Peptone Water with Andrade indicator is reddish-pink when hot; and should return to a colourless or slightly pink colour when cooled to room temperature.
4. Some sugar solutions may affect the pH of Peptone Water, which must be checked and corrected.
5. It may be required to make subcultures to ensure purity of the inoculum since mixed or contaminated cultures may give false reactions.
6. Andrade indicator may fade on prolonged storage; do not use beyond expiry period.
7. It is advisable to maintain cultures of organisms, which have known positive and negative reactions in each sugar. Using fresh sub-cultures test each batch of sugar media with the appropriate organisms.
8. *Vibrio* species should not be incubated longer than 18-20 hours as it may lead to development of suppressed forms

Warranty

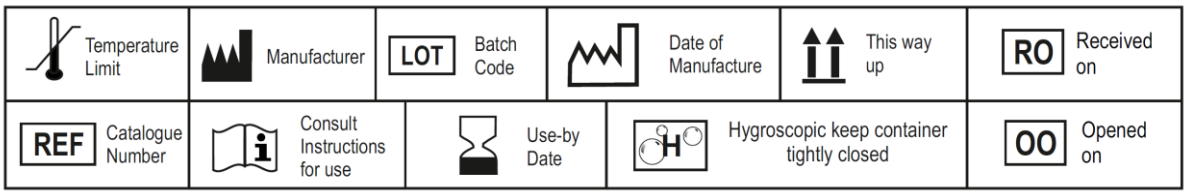
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Bureau of Indian Standards IS: 5887 (Part I) 1976, reaffirmed 1986.
2. Macfaddin J., 1980, Biochemical Tests for Identification of Medical Bacteria, 2nd ed., Williams and Wilkins, Baltimore.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd

Product Presentation:

Cat No.	Product description	Pack Size
201160030100	Dehydrated Culture Media	100 g
201160030500	Dehydrated Culture Media	500 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.