

## TM 309 – DEXTROSE PEPTONE BROTH

### INTENDED USE

For routine sterility testing and for cultivation of fastidious organisms.

### PRODUCT SUMMARY AND EXPLANATION

Dextrose Peptone Broth is formulated as per the procedures described by Williams for the cultivation of microorganisms that are fastidious, or present in small numbers and also for the enumeration of thermophilic bacteria responsible for flat-sour spoilage of canned foods. This medium is recommended by AOAC for the routine cultivation purpose. Dextrose is the readily available energy source for most of the organisms. Dextrose Peptone Broth can also be used for routine sterility testing. Supplementation of the medium with blood provides additional nutrients.

### COMPOSITION

| Ingredients        | Gms / Ltr |
|--------------------|-----------|
| Peptone            | 20.000    |
| Dextrose (Glucose) | 10.000    |
| Sodium chloride    | 5.000     |

### PRINCIPLE

The medium consists of Peptone supplies amino acids, peptides etc. for the growth of the organisms. Dextrose is the readily available energy source for the most of the organisms. Sodium chloride maintains the osmotic balance of the medium.

### INSTRUCTION FOR USE

- Dissolve 35 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15psi pressure (121°C) for 15 minutes. Cool to 45-50° C.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.

**Appearance of prepared medium** : Light yellow coloured to amber coloured, clear to slightly opalescent solution in tubes.

**pH (at 25°C)** : 7.2 ± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

| Microorganism           | ATCC  | Inoculum (CFU/ml) | Growth    | Incubation Temperature | Incubation Period |
|-------------------------|-------|-------------------|-----------|------------------------|-------------------|
| <i>Escherichia coli</i> | 25922 | 50-100            | Luxuriant | 35-37 °C               | 18-48 Hours       |



|                                            |       |        |           |          |             |
|--------------------------------------------|-------|--------|-----------|----------|-------------|
| <i>Pseudomonas aeruginosa</i>              | 27853 | 50-100 | Luxuriant | 35-37 °C | 18-48 Hours |
| <i>Streptococcus pyogenes</i>              | 19615 | 50-100 | Luxuriant | 35-37 °C | 18-48 Hours |
| <i>Staphylococcus aureus subsp. aureus</i> | 25923 | 50-100 | Luxuriant | 35-37 °C | 18-48 Hours |

#### PACKAGING:

In pack size of 500 gm bottles.

#### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

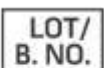
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

#### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

#### REFERENCES

1. Association of Official, Analytical, Chemists, 1978, Bacteriological Analytical Manual, 5th Ed, AOAC, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
5. Williams O.B., 1936, Food Res., 1(3):217.

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|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <br>GMP<br>Good Manufacturing<br>Practices Certified | <br>Best Before                          | <br>QTY.<br>Quantity                  | <br>REF<br>Catalogue Number | <br>Manufacturer |
| <br>Temperature Unit                                 | <br>LOT/<br>B. NO.<br>Lot / Batch Number | <br>Consults Instructions<br>for Use | <br>QR<br>Code              |                                                                                                       |

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
Revision: 06 Dec., 2023