



## Nutrient Broth with 1% Peptone

M244S

Nutrient Broth with 1% Peptone is used as a general purpose culture medium in accordance with Indian standard published by BIS under specification IS 5887 (Part II, IV) 1976.

### Composition\*\*

| Ingredients                    | Gms / Litre |
|--------------------------------|-------------|
| Peptic digest of animal tissue | 10.000      |
| Meat extract                   | 10.000      |
| Sodium chloride                | 5.000       |
| Final pH ( at 25°C)            | 7.5±0.2     |

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 25 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### Principle And Interpretation

Nutrient Broth is a general purpose medium used for the examination of water and dairy products according to Standard Methods for the Examination of Water and Wastewater (1) and Dairy Products (2). It can also be used for cultivating several less fastidious microorganisms. Nutrient media may be used as enriched media by the addition of 10% blood or other biological fluids like ascitic fluid, serum etc. This medium is general purpose culture medium in accordance with Indian standard published by BIS under specification IS 5887 (Part II, IV) 1976 (4).

Meat extract and peptic digest of animal tissue provide the necessary nitrogen compounds, carbon, vitamins and also some trace nutrients. Sodium chloride maintains osmotic equilibrium of the medium.

### Quality Control

#### Appearance

Yellow coloured homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Light yellow coloured clear solution

#### Reaction

Reaction of 2.5% w/v aqueous solution at 25°C. pH : 7.5±0.2

#### pH

7.30-7.70

#### Cultural Response

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

#### Cultural Response

| Organism                                 | Inoculum (CFU) | Growth    |
|------------------------------------------|----------------|-----------|
| <b>Cultural Response</b>                 |                |           |
| <i>Enterobacter aerogenes</i> ATCC 13048 | 50-100         | luxuriant |
| <i>Escherichia coli</i> ATCC 25922       | 50-100         | luxuriant |
| <i>Klebsiella pneumoniae</i> ATCC 13883  | 50-100         | luxuriant |
| <i>Salmonella Typhimurium</i> ATCC 14028 | 50-100         | luxuriant |

#### Growth promoting

## Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

## Reference

- 1.Greenberg A.E., Trussell R.R. and Clesceri L.S. (Eds.), 1985, Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA, Washington, D.C.
- 2.American Public Health Association, 1978, Standard Methods for the Examination of Dairy Products, 14th ed., APHA, Inc., Washington,D.C.
- 3.Bureau of Indian Standards, 1S:5887 (Part 1) 1976, affirmed 1986.
- 4.Bureau of Indian Standards, 1S:5889 (Part II) 1976, Second Reprint December 1994.
- 5.Bureau of Indian Standards, 1S:5887 (Part IV) 1976.

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### Disclaimer :

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