

Technical Information

Standard Nutrient Broth No. 1

Product Code: DM 2224

Application: - Standard Nutrient Broth No. 1 is used for the cultivation of fastidious bacteria

Composition**

Ingredients	Gms / Litre
Peptone, special	15.000
Yeast extract	3.000
Sodium chloride	6.000
Dextrose	1.000
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Nutrient media are basic culture media used for maintaining microorganisms ⁽¹⁾, for purity checking prior to biochemical or serological testing. The Peptone special, incorporated in this broth is an enzymatic protein digest of animal tissue especially adapted for the preparation of media for culturing fastidious bacteria. The peptone and yeast extract provides nitrogenous compounds, carbon, sulphur, trace ingredients. Sodium chloride maintains the osmotic equilibrium.

Addition of different biological fluids such as horse or sheep blood, serum, egg yolk etc. makes the medium suitable for the cultivation of related fastidious organisms ⁽²⁾.

Methodology

Suspend 25 grams of powder media in 1000 ml distilled water. Shake well & heat if necessary to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder.

Colour and Clarity of prepared medium

Cream to yellow homogeneous free flowing powder

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

pH Range 7.30-7.70

Cultural Response/Characteristics

DM 2224: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant
<i>Erysipelothrix rhusiopathiae</i> ATCC 19414	50-100	good-luxuriant
<i>Listeria monocytogenes</i> ATCC 19111	50-100	good-luxuriant



Dehydrated Culture Media
Bases / Media Supplements

<i>Staphylococcus aureus</i> ATCC 25923	50-100	good-luxuriant
<i>Streptococcus pneumonia</i> ATCC 6303	50-100	good-luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good-luxuriant
<i>Shigella flexneri</i> ATCC 12022	50-100	good-luxuriant

Storage and Shelf Life

Dried media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

1. Lepage S., Shelton J. and Mitchell T., 1970, Methods in Microbiology, Norris J. and Ribbons D.(Eds.), Vol. 3A., Academic Press, London.
2. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

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