

Technical Information

M-Nutrient Broth

Product Code: DM 2126

Application: - M-Nutrient Broth is recommended for enumeration of bacteria using membrane filter technique.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	40.000
Yeast extract	6.000
Final pH (25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

M-Nutrient Broth is used for enumeration of non-fastidious bacteria using membrane filtration technique. The medium was originally developed as Nutrient Broth as mentioned in Standard Methods for Examination of Water and Waste Water⁽¹⁾.

This medium has very simple formulation with high amount of peptic digest of animal tissue and low amount of yeast extract. These nutrients support the growth of non-fastidious microorganisms and thus enable the user to enumerate and cultivate the bacteria in any liquid materials using membrane filtration technique⁽²⁾. Sterile cotton absorbent pads are saturated with about 2 ml M-Nutrient Broth. Sterile membrane filters used for filtering water samples are aseptically placed on the saturated cotton absorbent pads. These are then incubated at 35-37°C for a period of 18-48 hours.

Methodology

Suspend 46 grams of powder media in 1000 ml distilled water. Shake well & heat if necessary to ensure complete solution. Dispense as desired 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

Light yellow coloured clear solution without any precipitate

Reaction

Reaction of 4.6% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH range 7.00-7.40

Cultural Response/ characteristics

DM 2126: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant
<i>Enterococcus faecalis</i> ATCC 29212	50-100	luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant
<i>Staphylococcus epidermidis</i> ATCC 12228	50-100	luxuriant



Dehydrated Culture Media
Bases / Media Supplements

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: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Eaton A. D., Clesceri L. S. and Greenberg A. E., (Ed.), 1995, Standard Methods for the Examination of water and Wastewater, 19th Ed., American Public Health Association, Washington, D.C.
2. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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