

Technical Information

M-Endo MiVeg Broth

Product Code : VM2107

Application:- M-Endo MiVeg Broth is recommended for estimation of coliforms in water samples using membrane filter technique.

Composition

Ingredients	Gms / Litre
MiVeg peptone	20.0
Yeast extract	6.0
Lactose	25.0
Dipotassium phosphate	7.0
Basic fuchsin	1.0
Sodium sulphite	2.5
Final pH (at 25°C)	7.5±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

M-Endo MiVeg Broth is prepared by using MiVeg peptone in place of animal based peptones thereby making the medium free from BSE/TSE risks. This medium is the modification of M-Endo Broth which was used for studying milk lines of milk handling equipment (1) and for examination of swimming pool waters (2) using membrane filter technique. It is like the conventional medium gives higher counts and is most satisfactory of the many media used since colonies of coliform bacteria, develop rapidly (3). Preliminary enrichment and saturated relative humidity are not necessary and results are in good agreement with the Standard methods MPN Test.

This medium contains Yeast extract and MiVeg peptone which supplies essential nutrients to the coliforms. Lactose serve as the fermentable carbohydrate source in the medium. Basic fuchsin and sodium sulphite present in the medium inhibits gram-positive bacteria.

Methodology

Suspend 61.5 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 5 minutes. Cool and use as required in membrane filtration technique. The medium should be used on the same day of its rehydration.

Caution : Basic fuchsin is a potential carcinogen and care should be taken to avoid inhalation of the powdered dye and contamination of the skin.

Quality Control

Physical Appearance

Purple coloured, homogeneous, free flowing powder.

Colour and Clarity of prepared medium

Pinkish orange coloured solution without any precipitate.

Reaction

Reaction of 6.15 % w/v aqueous solution pH: 7.5 ±0.2 at 25°C

pH range

7.3-7.7

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony*
<i>Escherichia coli</i> (25922)	10 - 100	good-luxuriant	pink with metallic sheen
<i>Salmonella</i> serotype Typhimurium (14028)	10 - 100	good-luxuriant	colourless-light pink
<i>Staphylococcus aureus</i> (25923)	10 - 100	inhibited	-

Key : * = on membrane filter

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. Olson, Brown and Mickle, J. 1960, Milk and Food Tech., 23:86.
2. Shipe and Fields, 1955, Public Health Lab., 13:44.
3. Slanetz and Bartley, 1955, Applied Microbiol., 3:46.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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