Technical Information

Ethyl Violet Azide MiVeg Broth (E.V.A. MiVeg Broth)

Product Code :VM1426

Application:- Ethyl Violet Azide MiVeg Broth (E.V.A. MiVeg Broth) is used as a confirmatory medium for selective detection of *Enterococci* and as an indicator of faecal contamination in water and other specimens.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	20.0
Dextrose	5.0
Dipotassium phosphate	2.7
Monopotassium phosphate	2.7
Sodium chloride	5.0
Sodium azide	0.4
Ethyl violet	0.00083
Final pH (at 25°C)	7.0 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Ethyi Violet Azide MiVeg Broth is prepared by replacing Casein enzymic hydrolysate with MiVeg hydrolysate which is free from BSE/ TSE risks. EVA MiVeg Broth is modification of the medium formulated by Litsky et al (1). The reduced amount of dextrose and increased dye concentration is highly specific for *Enterococci*. The presence of *Enterococci* acts as a valuable index of faecal or sewage contamination in water sample(2). EVA MiVeg Broth is used in conjunction with Azide Dextrose MiVeg Broth (VM1345). Azide Dextrose MiVeg Broth like Azide Dextrose Broth can be used as a presumptive medium and EVA MiVeg Broth for the confirmation of the presence of *Streptococci* in frozen foods. It is found that generally faecal *Streptococci* were recovered more consistently and in greater number than the coliforms and could be used in preference to coliforms as an indicator bacteria in frozen foods (3).
MiVeg hydrolysate and dextrose provide the necessary nutrients for the growth of *Enterococci*. Sodium azide and Ethyl Violet in the medium inhibit gram-negative bacilli and gram-positive cocci other than *Enterococci*. The phosphates buffer the medium and sodium chloride maintains the osmotic balance.

Methodology

Suspend 35.8 grams of powder media in 1000ml distilled water. Mix thoroughly. Heat if necessary to dissolve the medium completely. Dispense in tubes in 10ml amounts and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.
Warning: Sodium Azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.

Quality Control

Physical Appearance

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Colour and Clarity of prepared medium

Light amber coloured, clear solution without any precipitate.

Reaction

Reaction of 3.58% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

pH Range

6.8-7.2

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 24 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth
Enterococcus faecalis (29212)	10^2-10^3	luxuriant with purple button at the bottom of tube
Escherichia coli (25922)	10^3-2x10^3	inhibited
Streptococcus pyogenes (19615)	10^3-2x10^3	inhibited

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: 2-8^0 in sealable plastic bags for 2-5 day.

Further Reading

1. Litsky W., Mallmann W.L. and Fifield C.W., 1953, Am. J. Publ. Health, 43:873.
2. Eaton A.D., Clesceri L.S. and Greenberg A.E., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st ed, APHA, Washington, DC.
3. Frances Pouch Downes and Keith Ito (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.

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