ETHYL VIOLET AZIDE BROTH TM 103

For selective and confirmatory detection of Enterococci as an indicator of faecal pollution in water

Composition

Ingredients	Gms/Ltr.
Casein enzymatic hydrolysate	20.00
Dextrose	5.00
Sodium chloride	5.00
Dipotassium phosphate	2.70
Monopotassium phosphate	2.70
Sodium azide	0.25
Ethyl violet	0.00083

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 35.8gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121ºC) for 15 minutes and dispense into sterile tubes.

Appearance: Light amber colour, clear solution
pH (at 25°C): 7.0 ± 0.2

Principle

ETHYL VIOLET AZIDE BROTH used for selective and confirmatory detection of Enterococci as an indicator of faecal pollution in water. Ethyl Violet Azide Broth was formulated according to the recommendations of "Litsky", "Malmann" and "Fifield", who investigated the action of a number of dyes and selective agents for the formulation of a confirmation medium for fecal streptococci. The selectivity of the medium for enterococci is due to the presence of ethyl violet and sodium azide, which inhibit the growth of Gram-negative bacilli and sporulated Gram-positive species. Medium composed of Casein enzymatic hydrolysate that acts as a source of minerals, nitrogen. Dipotassium phosphate and Monopotassium phosphate buffers the medium well. Sodium chloride maintains the osmotic balance of the medium. Dextrose acts as a source of fermentable carbon.

Interpretation

Cultural characteristics observed after inoculating ($10^2 - 10^3$ CFU / ml), on incubation at 35 - 37°C for 24 - 48 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
Escherichia coli	25922	$10^2 - 10^3$	Inhibited
Enterococcus faecalis	29212	$10^2 - 10^3$	Luxuriant
Streptococcus bovis	27960	$10^2 - 10^3$	Inhibited

References

1. Litsky W., Mallmann W.L. and Fifield C.W., 1953, Am. J. Publ. Health, 43:873.
2. Litsky W., Mallmann W.L. and Fifield C.W., 1955, Am. J. Publ. Health, 45:104