

Bromo Cresol Purple Azide HiVeg™ Broth

MV1212

BCP Azide HiVeg Broth is used for the confirmation of the presence of faecal *Streptococci* in water and wastewater.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate	10.0
Yeast extract	10.0
D-Glucose	5.0
Sodium chloride	5.0
Dipotassium hydrogen phosphate	2.7
Potassium dihydrogen phosphate	2.7
Sodium azide	0.5
Bromo cresol purple	0.032

Final pH (at 25°C) 7.0 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 36 grams in 1000 ml distilled water. Add 5 ml/l glycerol if desired. Dispense into test tubes and sterilize by autoclaving at 10 lbs pressure (115°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.

Principle and Interpretation :

Bromocresol Purple Azide HiVeg Broth is prepared by using HiVeg hydrolysate which is free from BSE/TSE risks which can be used for confirming the presence of *Enterococci*, particularly in bacteriological analysis of water according to Hajna and Perry (1). This medium can be used for testing after preliminary testing of water sample in the Azide Dextrose HiVeg Broth (MV345) or equivalent Azide Dextrose Broth (M345), medium recommended for enumerating of faecal *Streptococci* by MPN technique as cited in APHA (2).

Bromocresol Purple Azide HiVeg Broth has dextrose (D-glucose) as fermentable carbon source and added bromocresol purple as an indicator. The colour change of the medium from purple to yellow indicates fermentation of dextrose (D-glucose) due to growth and subsequent acid production. According to Hajna *Enterococcal* dextrose fermentation is improved by the addition of glycerol (1). HiVeg hydrolysate and yeast extract supply nitrogenous compounds, sulphur, amino acids and trace ingredients. Sodium chloride maintains osmotic balance of the medium. Sodium azide inhibits the entire bacterial flora including those species which may have grown in the preliminary test media. Colour change to yellow with turbidity indicates and confirms growth of *Enterococci*.

Quality Control :**Appearance of powder**

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

Colour and Clarity

Purple coloured, clear solution without any precipitate.

Reaction

Reaction of 3.6% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV)©		Animal based (Code M)	
MV1212 HiVeg hydrolysate		M1212 Casein enzymic hydrolysate	
Recommended for	:	Confirmation of faecal <i>Streptococci</i> in water and wastewater	
Reconstitution	:	36.0 g/l	
Quantity on preparation (500g):	:	13.88 L	
pH (25°C)	:	7.0 ± 0.2	
Supplement	:	Glycerol, if desired	
Sterilization	:	115°C / 15 minutes.	
Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.			

Cultural Response

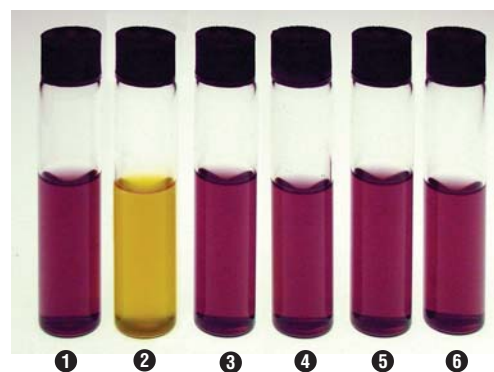
Cultural characteristics observed after an incubation at 35 - 37°C for 24 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Acid
<i>Enterococcus faecalis</i> (29212)	10 ² -10 ³	good-luxuriant	+
<i>Escherichia coli</i> (25922)	10 ² -10 ³	inhibited	-
<i>Pseudomonas aeruginosa</i> (27853)	10 ² -10 ³	inhibited	-
<i>Streptococcus agalactiae</i> (13813)	10 ² -10 ³	none-poor	-
<i>Streptococcus pyogenes</i> (19615)	10 ² -10 ³	none-poor	-

Key : + = positive reaction, yellow colour
- = negative reaction, no colour change

References :

- Hajna, A. A. and Perry, C.A. 1943, Am. J. Publ. Health, 33: 550.
- Eaton, A.D., Clesceri, L.S and Greenberg, A.E. (eds.) 2005, Standard methods for the examination of water and wastewater, 21st edition, APHA, Washington, DC.

**MV1212 Bromo Cresol Purple Azide HiVeg Broth**

- Control
- Enterococcus faecalis*
- Pseudomonas aeruginosa*
- Escherichia coli*
- Streptococcus agalactiae*
- Streptococcus pyogenes*