

**Glucose Azide HiVeg™ Broth****MV982**

Glucose Azide HiVeg Broth is used for enumeration of faecal *Streptococci* from water and sewage by MPN technique.

**Composition\*\* :**

Ingredients	Grams/Litre
HiVeg peptone	10.00
Yeast extract	3.00
Sodium chloride	5.00
Dipotassium phosphate	5.00
Monopotassium phosphate	2.00
Dextrose	5.00
Sodium azide	0.25
Bromo cresol purple	0.03

Final pH (at 25°C) 6.7 ± 0.2

\*\* Formula adjusted, standardized to suit performance parameters

**Directions :**

Suspend 30.3 grams in 1000 ml distilled water. Heat if necessary to ensure complete solution. Dispense 5 ml amounts in 16x150 mm test tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For large inocula of 5 ml or more quantities prepare double strength medium.

**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 :**

Glucose Azide HiVeg Broth is prepared by using HiVeg peptone which is free from BSE/TSE risks. Glucose Azide HiVeg Broth is the modification of Glucose Azide Broth and can be used for confirming the presence of *Enterococci* particularly in bacteriological analysis of water according to Hajna and Perry (1, 2). Preliminary testing of water sample for enumerating faecal *Streptococci* by MPN technique as cited in APHA (3) is done in the Azide Dextrose HiVeg Broth (MV345 ) or equivalent Azide Dextrose Broth (M345).

Glucose Azide HiVeg Broth has HiVeg peptone and yeast extract which supply nitrogenous compounds, sulphur, amino acids and trace ingredients required for bacterial growth. Dextrose (D-glucose) is the fermentable carbon source and bromocresol purple serves as pH indicator. The colour change of the medium from purple to yellow indicates fermentation of dextrose (D-glucose) due to growth and subsequent acid production. Sodium chloride maintains osmotic balance of the medium. Sodium azide suppresses the growth of gram negative organisms and thereby allows the cultivation of faecal *Enterococci*.

**Quality Control :****Appearance of Powder**

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

**Colour and Clarity**

Purple coloured, clear solution without any precipitate.

**Product Profile :**

Vegetable based (Code MV)☉	Animal based (Code M)
<b>MV982</b> HiVeg peptone	<b>M982</b> Peptic digest of animal tissue

**Recommended for :** Enumeration of faecal *Streptococci* from water and sewage by MPN technique.

**Reconstitution :** 30.3 g/l

**Quantity on preparation (500g) :** 16.5 L

**pH (25°C) :** 6.7 ± 0.2

**Supplement :** None

**Sterilization :** 121°C / 15 minutes.

**Storage :** Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

**Reaction**

Reaction of 3.03% w/v aqueous solution is pH 6.7 ± 0.2 at 25°C.

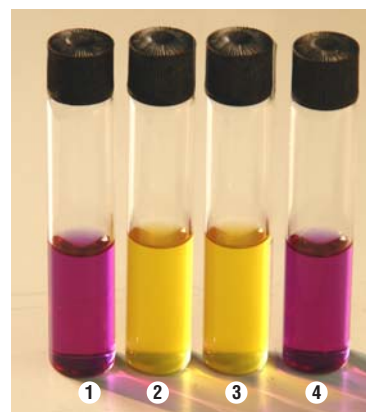
**Cultural Response**

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour change to yellow
<i>Enterococcus faecalis</i> (19433)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	+
<i>Enterococcus hirae</i> (8043)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	+
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -2 X10 <sup>3</sup>	inhibited	-
<i>Staphylococcus aureus</i> (25923)	10 <sup>2</sup> -2 X10 <sup>3</sup>	inhibited	-

**References :**

- Hajna, A.A. 1951. Publ. Health Lab., 9:80.
- 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, 21<sup>st</sup> edition, APHA, Washington, D.C.

**MV982 Glucose Azide HiVeg Broth**

- Control
- Enterococcus faecalis*
- Enterococcus hirae*
- Escherichia coli*