

Buffered HiVeg™ Peptone Water w/ NaCl**MV1275**

Buffered HiVeg Peptone Water with NaCl is recommended as a diluent for carrying out microbial limit test from clinical and nonclinical specimens.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	1.0
Potassium dihydrogen phosphate	3.56
Disodium hydrogen phosphate	7.23
Sodium chloride	4.3

Final pH (at 25°C) 7.0 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 16.09 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Add 0.1 to 1% w/v polysorbate 20 or 80 if desired. Dispense in tube or flasks and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation :

Buffered HiVeg Peptone Water with NaCl is prepared by completely replacing animal based peptones by vegetable peptones. Edel and Kampelmacher (1) noted that sub lethal injury to *Salmonellae* might occur in many food preservation processes. Preenrichment in a nonselective medium allows for repair of cell damage and facilitates the recovery of *Salmonellae*. Enriching injured cells in Lactose broth (pH 6.9) may be further detrimental to their recovery (2).

Pre-enrichment in Buffered HiVeg Peptone Water with NaCl which is the modification of Buffered Peptone Water with NaCl at 35°C for 18-24 hours results in repair of injured cells (3). HiVeg peptone serves as source of carbon, nitrogen, vitamins and minerals. Phosphate buffers the medium. Sodium chloride maintains the osmotic equilibrium.

Inoculate 10 grams specimen in 50 ml of this medium and incubate at 35°C for 18 hours. Transfer 10 ml from this medium to 100 ml of Tetrathionate HiVeg Broth (MV032) and incubate at 43°C for 24-48 hours and then subculture on selective plating media. Examine the plates for colonies of *Salmonellae* species.

Quality Control :**Appearance of powder**

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

Colour and Clarity

Light amber coloured, clear solution without any precipitate.

Reaction

Reaction of 1.61% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV)®	Animal based (Code M)
MV1275 HiVeg peptone	M1275 Peptic digest of animal tissue

Recommended for : Diluent for carrying microbial limit test from clinical and non clinical specimens.

Reconstitution : 16.09 g/l

Quantity on preparation (500g) : 31.07 L

pH (25°C) : 7.0 ± 0.2

Supplement : Polysorbate 20 or Polysorbate 80 (if desired.)

Sterilization : 121°C / 15 minutes.

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

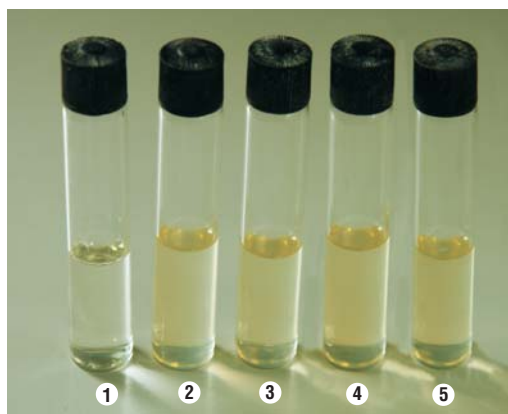
Cultural Response

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

Organisms (ATCC)	Inoculum (CFU)	Growth
<i>Bacillus subtilis</i> (6633)	30-10 ²	good-luxuriant
<i>Escherichia coli</i> (25922)	30-10 ²	good-luxuriant
<i>Salmonella</i> serotype Typhimurium (14028)	30-10 ²	good-luxuriant
<i>Staphylococcus aureus</i> (25923)	30-10 ²	good-luxuriant

References :

- Edel W. & Kampelmacher E.H., 1973, Bull. Wld. Hlth. Org., 48:167.
- Angelotti R., 1963, "Microbiological Quality of Foods", Academic Press, New York.
- Sadovski A.Y., 1977, J. Fd. Technol., 12:85.

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- Control
- Bacillus subtilis*
- Escherichia coli*
- Salmonella* serotype Typhimurium
- Staphylococcus aureus*