

Shapton HiVeg™ Medium**MV645**

Shapton HiVeg Medium is used for enumeration of spores of *Bacillus stearothermophilus* which cause flat sour spoilage in canned foods with pH more than 4.5.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	5.0
HiVeg hydrolysate	2.5
HiVeg extract	3.0
Yeast extract	1.0
Dextrose	1.0
Bromo cresol purple	0.025
Agar	15.0

Final pH (at 25°C) 7.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 27.53 grams in 1000 ml distilled water. Soak for 5 minutes. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation :

Shapton HiVeg Medium is prepared by using vegetable peptones in place of animal based peptones which makes the medium free of BSE/TSE risks. This medium is the modification of the medium formulated by Shapton and Hinds (1) for the enumeration of spores of *Bacillus stearothermophilus* which cause flat sour spoilage in canned foods with pH more than 4.5.

The sample under test is suspended in Ringer's salt solution and then added to sterile molten Shapton HiVeg Medium and is held at 100°C for 20 minutes. The temperature is then slightly raised to 108.4°C and maintained for 10 minutes after which it is cooled to 50°C and plates are poured. The plates are incubated at 55°C for 48 hours.

HiVeg peptone, HiVeg hydrolysate, HiVeg extract and yeast extract provides essential nitrogenous sources, vitamin B and other essential sources. Dextrose serves as fermentable carbohydrate source. Bromocresol purple is the pH indicator used. On fermentation and utilization of dextrose, the colour of the colony changes to yellow.

Quality Control :**Appearance of powder**

Greenish yellow coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity

Light purple coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 2.75% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV)©	Animal based (Code M)
MV645	M645
HiVeg peptone HiVeg hydrolysate HiVeg extract	Peptic digest of animal tissue Casein enzymic hydrolysate Beef extract

Recommended for : Enumeration of spores of *Bacillus stearothermophilus* which cause flat sour spoilage in canned foods with pH more than 4.5.

Reconstitution : 27.53 g/l

Quantity on preparation (500g) : 18.16 L

pH (25°C) : 7.4 ± 0.2

Supplement : None

Sterilization : 121°C / 15 minutes

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

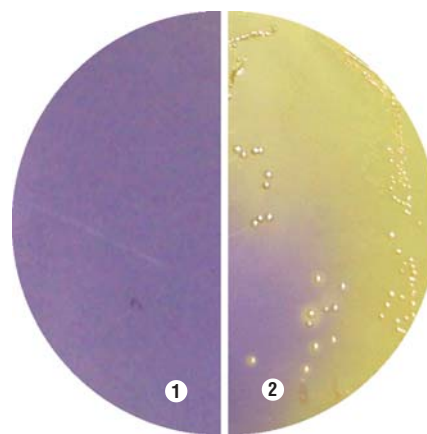
Cultural Response

Cultural characteristics observed after an incubation at 55°C for 18 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony
<i>Bacillus stearothermophilus</i> (7953)	10 ² -10 ³	luxuriant	yellow

References :

- Shapton D.A. and Hinds W.R., 1963, Chemistry and Industry, p. 230.



MV645 Shapton HiVeg Medium

- Control
- Bacillus stearothermophilus*