Technical Information

Shapton MiVeg Medium

Product Code : VM1645

Application:- Shapton MiVeg 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	Gms / Litre
MiVeg peptone	5.0
MiVeg hydrolysate	2.5
MiVeg 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.

Principle & Interpretation

Shapton MiVeg Medium is prepared by adding vegetable peptones in place of animal based peptone thereby making the medium BSE/TSE risks free. This medium is the modification of the medium formulated by Shapton and Hindes (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 examination is suspended in Ringer's salt solution and then added to sterile molten Shapton MiVeg Medium and is held at 100°C for upto 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 poured into plates, which are then incubated at 55^0C upto 48 hours.

MiVeg peptone, Miveg hydrolysate, Miveg extract and yeast extract supplies all the essential nitrogenous sources, vitamin B and certain other necessary nutrients required for the optimum growth of the organisms. Dextrose serves as fermentable carbohydrate in the medium. Bromocrseol purple is the pH indicator. Upon Dextrose utilization colour.

Methodology

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

Quality Control

Physical Appearance

Greenish yellow coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

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.

pH Range

7.2-7.6

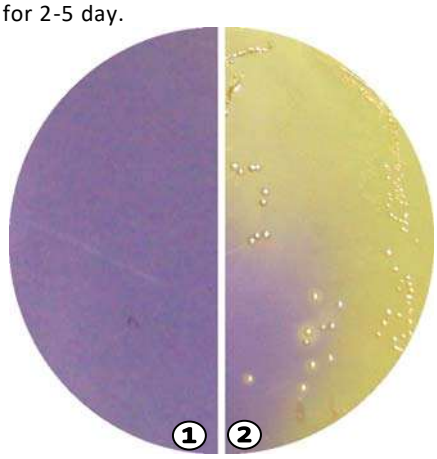
Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony
Bacillus stearothermophilus (7953)	10^2-10^3	luxuriant	yellow

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 day.



VM1645 Shapton MiVeg Medium

1. Control
2. *Bacillus stearothermophilus*

Further Reading

1. Shapton D.A. and Hindes W.R., 1963, Chemistry and Industry, p. 230.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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