Technical Information

Buffered MiVeg Peptone Water

Product Code : VM1614

Application:- Buffered MiVeg Peptone Water is used for pre-enrichment of injured *Salmonella* species from foods prior to selective enrichment and isolation.

Composition**

Ingredients	Gms / Litre
MiVeg peptone No. 3	10.0
Sodium chloride	5.0
Disodium phosphate	3.5
Monopotassium phosphate	1.5
Final pH (at 25°C)	7.2 ±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Buffered MiVeg Peptone Water is prepared by using MiVeg peptone No.3 inplace of proteose peptone thereby making the media free from BSE/TSE risks. Edel and Kampelmacher (1) noted that sublethal injury to *Salmonellae* may occur in many food preservation processes. Enriching injured cells in Lactose broth (pH 6.9) may be further detrimental to their recovery (2). This was due to the enhanced sensitivity to low pH of freeze- injured *Salmonellae* which may contaminate frozen vegetables. Pre-enrichment in this medium which is the modification of Buffered Peptone Water (DM1614) maintaines a high pH over a period of 18-24 hours incubation. The medium overcomes the problem of low buffering capacity of Vegetable tissue (3). 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 MiVeg Broth (VM1032) and incubate at 43°C for 24 - 48 hours and then subculture on selective plating media. Examine the plates for colonies of *Salmonella* species.The type and number of connecting flora can affect recovery and may overgrow *Salmonella.*

Methodology

Suspend 20 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat if necessary to dissolve the medium completely. Dispense in 50 ml amounts. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light yellow coloured, clear solution without anyprecipitate.

Reaction

Reaction of 2.0 % w/v aqueous solution pH: 7.2 ±0.2 at 25°C

pH range

7.0-7.4

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery *	Colour of colony
Salmonella serotype Enteritidis (13076)	10^2 -10^3	luxuriant	>70%	Greenish blue**
Salmonella serotype typhi (6539)	10^2 -10^3	luxuriant	>70%	Greenish blue
Salmonella serotype Typhimurium (14028)	10^2 -10^3	luxuriant	>70%	Greenish blue**

Key: Recovery* = on Hektoen Enteric Veg Agar (MV467)
** = may have black centers

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 days.

VM1614 Buffered MiVeg Peptone Water

1. Control
2. *Salmonella* serotype Enteritidis
3. *Salmonella* serotype Typhimurium
4. *Salmonella* serotype Typhi

Further Reading

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

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
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for in fingement of any patents. Do not use the products if it fails to meet specificatons for identity and performens parameters.