

Technical Information

Tryptone Soya Mi Veg Agar w/Lecithin and Polysorbate 80

Product Code : VM1449

Application:- Tryptone Soya MiVeg Agar with Lecithin and Polysorbate 80 is recommended for determining the efficiency of sanitization of containers, equipment surfaces, water miscible cosmetics etc.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	15.00
Papaic digest of soyabean meal	5.00
Sodium chloride	5.00
Lecithin	0.70
Polysorbate 80 (Tween 80)	5.00
Agar	15.00
Final pH (at 25°C)	7.3±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Tryptone Soya MiVeg Agar with Lecithin and polysorbate 80 is prepared by using vegetable peptone in place of animal based peptones thereby making the medium free from BSE/ TSE risks. This medium is the modification of Tryptone Soya Agar with Lecithin and polysorbate 80 which is used in RODAC (Replicate Organism Detection and Counting) plates (1) for the detection and enumeration of microorganisms present on surfaces of sanitary importances (2, 3). It contains MiVeg hydrolysate and Papaic digest of soyabean meal which supplies nitrogenous compounds and other nutrients essential for microbial replication. Lecithin and polysorbate 80 serve as neutralizers reported to inactivate residual disinfectants from where the sample is collected (4). Lecithin neutralizes quaternary ammonium compounds while polysorbate 80 neutralizes phenolic disinfectants, hexachlorophene, formalin and with lecithin ethanol (5).

Collection of samples from areas before and after the treatment with disinfectant evaluates cleaning procedures in environmental sanitation. The presence and number of microorganisms is determined by the appearance of colonies on the agar surface (6). After counting the colonies, biochemical testing should be carried out for identification.

Methodology

Suspend 45.7 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 12 to 15 lbs pressure (118-121°C) for 15 minutes.

Quality Control

Physical Appearance

Light yellow coloured, homogeneous, free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Light to medium amber coloured, slightly opalescent gel forms in petri plates.

Reaction

Reaction of 4.57 % w/v aqueous solution pH: 7.3 ±0.2 at 25°C

pH range

7.1-7.5

Cultural Response/Characteristics

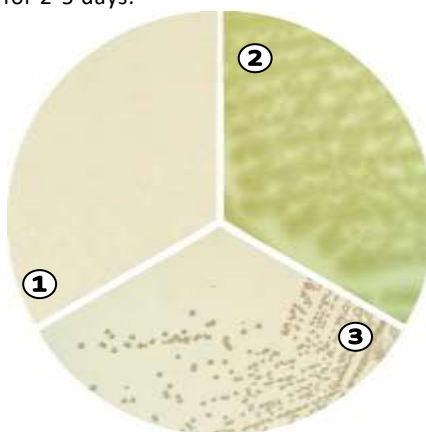
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Staphylococcus aureus</i> (25923)	10^2 - 10^3	luxuriant	>70%	yellow to gold
<i>Pseudomonas aeruginosa</i> (27853)	10^2 - 10^3	luxuriant	>70%	yellow green

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° in sealable plastic bags for 2-5 days.



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1. Control
2. *Pseudomonas aeruginosa*
3. *Staphylococcus aureus*

Further Reading

1. Hall and Hartnett, 1964, Public Hlth. Rep., 79:1021.
2. Standard Methods for the Examination of Dairy Products. 17th Edition, 2004 Edited by H. Michael Wehr and Joseph H. Frank.
3. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
4. Brummer, 1976, Appl. Environ. Microbiol., 32:80.
5. Favero (Chairman), 1967, Biological Contamination Control Committee, a state of the art report., Am. Assoc. for contamination control.
6. Lennette, Spaulding and Truant (Eds.), 1974, Manual of Clinical Microbiology, 2nd ed., ASM, Washington, D.C.

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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