Fluid Casein Digest Soya Lecithin Medium (Twin Pack) M117

Intended use

Fluid Casein Digest Soya Lecithin Medium is recommended for sanitary examination of surfaces.

Composition**

Ingredients	Gms / Litre
Part A	-
Tryptone	20.000
Soya lecithin	5.000
Part B	-
Polysorbate 20 (Tween 20)	40.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 25.0 grams of Part A in 960 ml purified/ distilled water. Heat if necessary to dissolve the medium completely. Add 40 ml of Part B. Mix well and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and dispense into tubes or flasks as desired.

Principle And Interpretation

Fluid Casein Digest Soya Lecithin Medium is recommended by USP for use in Microbial Limit Tests (4) and by the Indian Pharmacopeia (2) for sanitary examination of surfaces. Weber and Black had described the importance of a highly nutritional medium containing neutralizing agents for neutralizing quaternary ammonium compounds (6, 5). This medium is also recommended by NASA for the microbiological sampling of environmental surfaces sanitized with quaternary ammonium compounds (3). It is further recommended for microbiological examination of food products, nutritional and dietary supplements.

The medium contains tryptone, which provides necessary nutrients for the growth of the organisms. Soya lecithin neutralizes the quaternary ammonium compounds while polysorbate 20 neutralizes phenolic disinfectants, hexachlorophene and formalin (1).

Type of specimen

Environmental samples- swabs.

Specimen Collection and Handling

For environmental samples follow appropriate techniques for handling specimens as per established guidelines (1).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Due to nutritional variations some organisms may show less growth.
2. Further biochemical characterization is required for identification upto species level.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Part A :Cream to yellow homogeneous free flowing powder Part B : Colourless clear viscous liquid

Colour and Clarity of prepared medium

Yellow coloured, clear solution without any precipitate

Reaction

Reaction of the medium (2.5% w/v Part A + 4.0% w/v Part B) at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours (for fungal species incubate at 25-30°C for 24-48 hrs).

Organism	Inoculum (CFU)	Growth	Recovery
Candida albicans ATCC 10231 (00053*)	50-100	good-luxuriant	
Bacillus subtilis subsp. spizizzenii ATCC 6633 (00003*)	50-100	good-luxuriant	
Escherichia coli ATCC 25922 (00013*)	50-100	good-luxuriant	
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	50-100	good-luxuriant	
Escherichia coli NCTC 9002	50-100	good-luxuriant	
Escherichia coli ATCC 8739 (00032*)	50-100	good-luxuriant	
Staphylococcus aureus subsp. *aureus* ATCC 6538 (00032*)	50-100	good-luxuriant	

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (5,3).

Reference

1. Favero (chm.), 1967, Microbiological Sampling of Surfaces, Biological Contamination Control Committee, American Asso. for Contamination Control.
2. Indian pharmacopoeia, 2010, Govt. of India, Ministry of Health and Family Welfare, Vol. II, Controller of Publications, New Delhi.
3. National Aeronautics and Space Administration, 1966, Standard Procedures for the Microbiological Examination of Space Hardware.

4. The United States Pharmacopeia, 2009, The United States Pharmacopeial Convention. Rockville, MD.
5. Weber and Black, 1948, Am. J. Public Health, 38:1405.
6. Weber and Black, 1948, Soap and Sanitary Chemicals, 24:134.

Revision : 02/ 2018