Fluid Casein Digest-Soy-Lecithin Polysorbate 20 Medium (Twin Pack)

MAP117

(MU117/ MM117))

Intended Use:

Recommended for sanitary examination of surfaces and microbial limit tests in accordance with USP/IP.

Composition**

Ingredients	g / L
Part A	-
Tryptone	20.000
Soy lecithin	5.000
Part B	-
Polysorbate 20 (Tween 20)	40.000

**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 dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Fluid Casein Digest Soy Lecithin-Polysorbate 20 Medium is recommended for sanitary examination of surfaces by USP and IP (1,2). Weber and Black had described the importance of a highly nutritional medium containing the neutralizing agents for quaternary ammonium compounds (3,4). The medium contains tryptone which provide the necessary nutrients for the growth of the organisms. Soy lecithin neutralizes the quaternary ammonium compounds while polysorbate 20 neutralizes phenolic disinfectants, hexachlorophene and formalin (5). This medium is also recommended by NASA for the microbiological sampling of environmental surfaces sanitized with quaternary ammonium compounds (6).

Type of specimen

Environmental samples- swabs.

Specimen Collection and Handling:

For environmental samples follow appropriate techniques for handling specimens as per established guidelines (7,8). 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. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

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 to yellow viscous liquid

Colour and Clarity of Prepared medium

Yellow coloured clear solution.

Growth Promotion Test

In accordance with the USP/IP.

Cultural Response
Cultural characteristics observed after an incubation at 30-35°C for 48-72 hours.

Organism	Inoculum (CFU)	Growth
Candida albicans ATCC 10231 (00054*)	50-100	good-luxuriant
** *Bacillus spizizenii* ATCC 6633 (00003*)	50-100	good-luxuriant
Escherichia coli ATCC 25922 (00013*)	50-100	good-luxuriant
Escherichia coli ATCC 8739 (00012*)	50-100	good-luxuriant
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	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 15-30°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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (7,8).

Reference

1. The United States Pharmacopoeia-National Formulatory (USP-NF), 2022.
2. Indian Pharmacopoeia, 2022, Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare Government of India.
3. Weber and Black, 1948, Soap and Sanitary Chemicals, 24:134.
4. Weber and Black, 1948, Am. J. Public Health, 38:1405.
5. Favero (chm.), 1967, Microbiological Sampling of Surfaces, Biological Contamination Control Committee, American Asso. for Contamination Control.
6. National Aeronautics and Space Administration, 1966, Standard Procedures for the Microbiological Examination of Space Hardware.
7. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
8. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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