Technical Data

Tryptone Soya Agar Plate w/ Lecithin and Polysorbate 80 (Tryptone Soya Agar Plate w/ Lecithin & Polysorbate 80)

MP449

Intended use

Recommended for determining efficiency of sanitization of containers, equipment, surfaces, water miscible cosmetics etc.

Composition**

Ingredients	Gms / Litre
Tryptone	15.000
Soya Peptone	5.000
Sodium chloride	5.000
Lecithin	0.700
Polysorbate 80 (Tween 80)	5.000
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Principle And Interpretation

Tryptone Soya Agar with Lecithin and Polysorbate 80 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).

Tryptone and Soya peptone provide nitrogenous compounds and other nutrients essential for microbial replication. Lecithin and polysorbate 80 (Tween 80) are neutralizers reported to inactivate residual disinfectants from where the sample is collected (4). Lecithin neutralizes quaternary ammonium compounds and 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, carry out biochemical testing for identification.

Type of specimen

Swabs of containers, Equipment surfaces, Water miscible cosmetics etc.

Specimen Collection and Handling

For swabs of containers, equipment surfaces, water miscible cosmetics 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.Individual strain of a microorganism may have unique growth requirements with respect to nutrients and physical conditions. Based on which the growth pattern of each varies on a medium and some even may display significant delay in development.

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.
3. It is recommended to store the plates at24-30°C to avoid minimum condensation.

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

Sterile Tryptone Soya Agar Plate w/ Lecithin and Polysorbate 80 in 90 mm disposable plates.

Colour of medium

Amber coloured medium

Quantity of medium

25 ml of medium in 90 mm disposable plates.

Reaction

7.10-7.50

Sterility Test

Passes release criteria

Cultural Response

Growth Promotion was observed after an incubation at 30-35°C for 18-24 hours for bacteria and for fungus <=5 days.

Recovery rate

Recovery rate is considered 100% for bacterial growth on Blood Agar and fungal growth on Sabouraud Dextrose Agar.

Growth promoting properties

Growth of microorganism comparable to that previously obtained with previously tested and approved lot of medium occurs at the specified temperature for not more than the shortest period of time specified inoculating <=100 cfu (at 30-35°C for 18 hours).

Organism	Inoculum (CFU)	Growth	Observed Lot value (CFU)	Recovery	Incubation temperature	Incubation period
Growth promoting						
Bacillus subtilis subsp. spizizenii ATCC 6633 (00003*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Staphylococcus aureus subsp. aureus ATCC 6538 (00032*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Escherichia coli ATCC 25922 (00013*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Escherichia coli ATCC 8739 (00012*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Escherichia coli NCTC 9002	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Pseudomonas aeruginosa ATCC 27853 (00025*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Pseudomonas aeruginosa ATCC 9027 (00026*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Salmonella Abony *NCTC 6017*	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Micrococcus luteus ATCC 9341	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Streptococcus pneumoniae ATCC 6305	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs

Salmonella Typhimurium *ATCC 14028* (00031*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Clostridium sporogenes ATCC 19404 (00088*)	50 -100	luxuriant	35 -100	>=70 %	30 -35 °C	18 -24 hrs
Candida albicans ATCC 10231 (00054*)	50 -100	luxuriant	35 -100	>=70 %	20 -25 °C	<=5 d
Candida albicans ATCC 2091 (00055*)	50 -100	luxuriant	35 -100	>=70 %	20 -25 °C	<=5 d
Aspergillus brasiliensis ATCC 16404 (00053*)	50 -100	Good-luxuriant	25 -70	50 -70 %	30 -35 °C	<=5 d
Aspergillus brasiliensis ATCC 16404 (00053*)	50 -100	Luxuriant	35 -100	>=70 %	20 -25 °C	<=5 d
Candida albicans ATCC 10231 (00054*)	50 -100	Good-luxuriant	25 -70	50 -70 %	30 -35 °C	<=5 d
Candida albicans ATCC 2091 (00055*)	50 -100	Good-luxuriant	25 -70	50 -70 %	30 -35 °C	<=5 d

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

On receipt store between 20-30°C Use before expiry date on the label. 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

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6. Murray PR, Baron, Pfaller, and Yolken (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.
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