TSB Cap4 w/Tween 80 (Twin Pack)

M1992

Intended Use:

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

Composition**

Ingredients	Gms / Litre
Part A	-
Tryptone	17.000
Peptone	2.500
Soya peptone	3.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	2.500
Dextrose(Glucose)	2.500
Soya lecithin	5.000
Part B	-
Tamol	7.500
Polysorbate 80 (Tween 80)	35.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 37.5 grams of Part A in 800 ml purified / distilled water. Separately add 42.5 ml of Part B in 100 ml purified/ distilled water. Mix well and add to Part A solution. Make up the volume to 1000 ml. Heat if necessary to dissolve the medium completely. Mix well and dispense in tubes or flasks or as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Note : Medium may show haziness after sterilization but on cooling the medium becomes clear.

Principle And Interpretation

Tryptone Soya lecithin Broth with Tween 80 & Tamol is used for the detection and enumeration of microorganisms for products of sanitary importance, water miscible cosmetics and containing antimicrobials or preservatives (1)

Tryptone, soya peptone and peptone provides carbonaceous and nitrogenous compounds, long chain amio acids, vtamins and other essential growth nutrients for the microorganisms. Dextrose (Glucose) is the source of carbohydrate. Sodium chloride maintains the osmotic balance. Dipotassium hydrogen phosphate buffers the medium. Soya lecithin, polysorbate 80 (Tween 80) and tamol act as neutralizing agents that neutralizes the activity of antimicrobial agents. Lecithin and polysorbate 80 neutralizes quaternary ammonium compounds, parahydroxy benzoates and substituted phenolics. Collection of samples from areas before and after the treatment with disinfectant evaluates cleaning procedures in environmental sanitation (4).

Type of specimen

Environmental samples

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. This medium is general purpose medium and may not support the growth of fastidious organisms.

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: Yellow to amber viscous solution.

Colour and Clarity of prepared medium

Light to medium amber coloured, clear to slightly opalescent solution

Reaction

Reaction of 3.75% w/v aqueous solution of Part A and 4.2 ml of Part B at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural response

Cultural characteristics observed after an incubation at-specified temprature and period.

Organism Growth promoting	Inoculum (CFU)	Growth	Incubation temperature	Incubation period
Staphylococcus aureus subsp. *aureus ATCC 6538* (00032*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Staphylococcus aureus subsp. *aureus ATCC 25923* (00034*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Escherichia coli ATCC 8739 (00012*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Escherichia coli ATCC 25922 (00013*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Escherichia coli NCTC 9002	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Pseudomonas aeruginosa ATCC 9027 (00026*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Pseudomonas aeruginosa ATCC 27853 (00025*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Bacillus subtilis ATCC 6633 subsp. spizizenii (00003*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Micrococcus luteus ATCC 9341	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Salmonella Typhimurium *ATCC 14028* (00031*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Salmonella Abony *NCTC 6017* (00029*)	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Streptococcus pneumoniae ATCC 6305	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Candida albicans ATCC 10231 (00054*)	50 -100	luxuriant	20 -25 °C	<=5 d
Candida albicans ATCC 2091 (00055*)	50 -100	luxuriant	20 -25 °C	<=5 d
# *Aspergillus brasiliensis ATCC 16404* (00053*)	50 -100	luxuriant	20 -25 °C	<=5 d

Sterility Testing- Growth promotion+Validation

Staphylococcus aureus subsp. *aureus ATCC 6538* (00032*)	50 -100	luxuriant	20 -25 °C	<=3 d
Staphylococcus aureus subsp. *aureus ATCC 25923* (00034*)	50 -100	luxuriant	20 -25 °C	<=3 d
Escherichia coli ATCC 8739 (00012*)	50 -100	luxuriant	20 -25 °C	<=3 d
Escherichia coli ATCC 25922 (00013*)	50 -100	luxuriant	20 -25 °C	<=3 d
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Pseudomonas aeruginosa ATCC 9027 (00026*)	50 -100	luxuriant	20 -25 °C	<=3 d
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Salmonella Typhimurium *ATCC 14028* (00031*)	50 -100	luxuriant	20 -25 °C	<=3 d
Salmonella Abony *NCTC 6017* (00029*)	50 -100	luxuriant	20 -25 °C	<=3 d
Streptococcus pneumoniae ATCC 6305	50 -100	luxuriant	20 -25 °C	<=3 d

Key : (*) - Corresponding WDCM numbers. (#) - Formely known as *Aspergillus niger*

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 (2,3).

Reference

1. Hall and Hartnett, 1964, Public Health. Rep., 79:1021.

2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

3. 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.

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

Revision : 01 / 2019