TSB Cap 4 w/ Tween 80

M1992

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

Composition**

Ingredients	Gms / Litre
Part A	-
Pancreatic digest of casein	17.000
Peptone	2.500
Papaic digest of soyaben meal	3.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	2.500
Dextrose(Glucose)	2.500
Soya lecithin	5.000
Part B	-
Tamol	7.500
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)

Pancreatic digest of casein, papaic digest of soyabean meal and peptone provides nitrogenous compounds,amino acids and long chain peptides for the growth of microorganisms. Dextrose 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(2).

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-

Cultural Response

Organism	Inoculum (CFU)	Growth	Incubation temperature	Incubation period
Growth promoting				
Staphylococcus aureus ATCC 6538	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Staphylococcus aureus ATCC 25923	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Escherichia coli ATCC 8739	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Escherichia coli ATCC 25922	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	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Pseudomonas aeruginosa ATCC 27853	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Bacillus subtilis ATCC 6633	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	50 -100	luxuriant	30 -35 °C	18 -24 hrs
Salmonella Abony NCTC 6017	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	50 -100	luxuriant	20 -25 °C	<=5 d
Candida albicans ATCC 2091	50 -100	luxuriant	20 -25 °C	<=5 d
**Aspergillus brasiliensis ATCC 16404*	50 -100	luxuriant	20 -25 °C	<=5 d
Sterility Testing- Growth promotion+Validation				
Staphylococcus aureus ATCC 6538	50 -100	luxuriant	20 -25 °C	<=3 d
Staphylococcus aureus ATCC 25923	50 -100	luxuriant	20 -25 °C	<=3 d
Escherichia coli ATCC 8739	50 -100	luxuriant	20 -25 °C	<=3 d
Escherichia coli ATCC 25922	50 -100	luxuriant	20 -25 °C	<=3 d
Escherichia coli NCTC 9002	50 -100	luxuriant	20 -25 °C	<=3 d
Pseudomonas aeruginosa ATCC 9027	50 -100	luxuriant	20 -25 °C	<=3 d
Pseudomonas aeruginosa ATCC 27853	50 -100	luxuriant	20 -25 °C	<=3 d
Bacillus subtilis ATCC 6633	50 -100	luxuriant	20 -25 °C	<=3 d
Micrococcus luteus ATCC 9341	50 -100	luxuriant	20 -25 °C	<=3 d
Salmonella Typhimurium ATCC 14028	50 -100	luxuriant	20 -25 °C	<=3 d
Salmonella Abony NCTC 6017	50 -100	luxuriant	20 -25 °C	<=3 d
Streptococcus pneumoniae ATCC 6305	50 -100	luxuriant	20 -25 °C	<=3 d

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8 °C. Use before expiry date on label.

Reference

1.Hall and Hartnett, 1964, Public Hlth. Rep., 79:1021.
2.Murray PR, Baron, Pfaller, and Yolken (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.

Revision : 0 / 2015

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory,diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.