

Specification

General purpose solid medium containing animal and plant peptone, and neutralisers, according to Pharmacopoeial Harmonised Method and ISO Standards.

Presentation

	Packaging Details	Shelf Life	Storage
30 Contact Plates/lrd. Contact Plates - Triple Wrapping with: 15 ± 2 ml	1 box with 3 x 10 plates BOPP plastic bags (triple wrapping) with stacks of 5 plates inside. Every pack exhibits a irradiation indicator stacked on the side of the bag (8-14 KGy). LATERAL LABELLING LOCKABLE PETRI LID	9 months	15-25 °C

Composition

Composition (g/l):	
Peptone from casein	15.0
Soya peptone.....	5.00
Sodium chloride.....	5.00
Histidin.....	1.00
Lecithine.....	0.70
Polysorbate 80.....	5.00
Sodium Thiosulfate.....	0.50
Agar.....	15.0

Description /Technique

Description

TSA is a widely used medium containing two peptones which support the growth of a wide variety of organisms, even that of very fastidious ones such as Neisseria, Listeria, Brucella, etc. It is frequently used for routine diagnostic purposes due to its reliability and its easily reproducible results.

The addition of the neutralizing agents TLHTh (Tween 80 - Lecithin - Histidine - Sodium Thiosulphate) may inactivate a variety of disinfectants.

- * The combination of lecithin, polysorbate 80 and histidine neutralizes aldehydes and phenolic compounds.
- * The combination of lecithin and polysorbate 80 neutralizes the quaternary ammonium compounds.
- * The polysorbate 80 neutralizes hexachlorophene and mercurial derivatives.
- * Sodium thiosulphate neutralizes halogen compounds.
- * Lecithin neutralizes chlorhexidine.
- * Histidine neutralizes formaldehyde.

Technique

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

This medium is also well suited for air environmental sampling (total compatibility with most commercially available air samplers) or for other types of environmental sampling (fingers or gloves of operators, swab streaking,...).

Spread the plates by streaking methodology or by spiral method.

The inoculated plates are incubated at 30-35 ° C for 24-72 h (bacteria) and 3-5 days for fungi (yeast & molds). Examined daily.

(Incubation times greater than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications,... This medium can be inoculated directly or after enrichment broth).

After incubation, enumerate all the colonies that have appeared onto the surface of the agar.

Each laboratory must evaluate the results according to their specifications.

Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor if streaked a diluted sample. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

The lid can be used locking the plate in two positions after taking the sample:

- **AIR:** lid closed, but leaving certain movement, for AEROBIC and ANAEROBIC incubations.
- **CLOSE:** lid completely closed. Better for transport, avoiding risk of contamination due to its possible opening during the transport.

Attention: Plates are used for monitoring the microbiological contamination of surface and air inside cleanrooms, isolators, RABS, food industries and hospitals. The double/triple irradiated wrapping ensures that the package itself doesn't contaminate the environment as the first wrapper is removed just before entering the clean area.

Wrapping resistant to hydrogen peroxide vapors penetration.

Product: **TSA-Tween-Lecithin-Agar (Ph. Eur.) triple wrap,
for microbiology**

Quality control

Physical/Chemical control

Color : Straw-coloured yellow pH: 7.3 ± 0.2 at 25°C

Microbiological control

Growth Promotion Test 50-100 CFU according to harmonized Pharmacopoeia monographs (EP) and test methods & ISO 11133:2014/A1:2018
Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 30-35 °C. Read after 18-24 h to 72 h for bacteria and 3-5 days for fungi.

Microorganism

Escherichia coli ATCC® 8739, WDCM 00012
Staphylococcus aureus ATCC® 6538, WDCM 00032
Bacillus subtilis ATCC® 6633, WDCM 00003
Candida albicans ATCC® 10231, WDCM 00054
Aspergillus brasiliensis ATCC® 16404, WDCM 00053
Ps. aeruginosa ATCC® 9027, WDCM 00026

Growth

Good (≥70%)
Good (≥70%)
Good (≥70%)
Good (≥70%)
Good (≥70%)
Good (≥70%)

Sterility control

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

- ATLAS, R.M. & L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press, Inc. London.
- COLIPA (1997) Guidelines on Microbial Quality Management (MQM). Brussels.
- DOWNES, F.P. & K. ITO (2001) Compendium of Methods for the Microbiological Examination of Food, 4th ed, ASM, Washington D.C.
- EUROPEAN PHARMACOPOEIA 10.0 (2020) 10th ed. § 2.6.13. Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. EDQM. Council of Europe. Strasbourg.
- FDA (Food and Drug Administrations) (1998) Bacteriological Analytical Manual. 8th ed. Revision A. AOAC International. Gaithersburg, MD.
- HORWITZ, W. (2000) Official Methods of Analysis of AOAC INTERNATIONAL, 17th ed. Gaithersburg, MD. USA.
- ISO 9308-1 Standard (2000) Water Quality. Detection and enumeration of E. coli and coliform bacteria. Membrane filtration method.
- ISO 11731 Standard (2017) Water Quality. - Enumeration of Legionella.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ISO 18415 Standard (2017) Cosmetics - Microbiology - Detection of specified and non-specified microorganisms.
- ISO 21149 Standard (2017) Cosmetics - Microbiology - Enumeration and detection of aerobic mesophilic bacteria.
- ISO 21150 Standard (2015) Cosmetics - Microbiology - Detection of Escherichia coli.
- ISO 22717 Standard (2015) Cosmetics - Microbiology - Detection of Pseudomonas aeruginosa.
- ISO 22718 Standard (2015) . Cosmetics - Microbiology - Detection of Staphylococcus aureus.
- ISO 22964 (2017) Microbiology of the food chain.- Horizontal method for the detection of *Cronobacter spp*
- PASCUAL ANDERSON, M^aR^a (1992) Microbiología Alimentaria. Díaz de Santos S.A., Madrid.
- USP 33 - NF 28 (2011) <62> Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. USP Corp. Inc. Rockville. MD. USA.