

## Specification

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

## Presentation

20 Prepared Plates  
90 mm  
with: 21 ± 2 ml

### Packaging Details

1 box with 2 packs of 10 plates/pack. Single cellophane. Side labeling.

### Shelf Life

3 months

### Storage

2-14 °C

## Composition

Composition (g/l):

Peptone from Casein .....	15.00
Soya peptone.....	5.00
Sodium chloride.....	5.00
Agar.....	15.00

## 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.

Classical media for microbiological examination of non-sterile products according to Pharmacopoeial Harmonised Methods.

### Technique

This medium can be inoculated directly or after enrichment broth.

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).

Each laboratory must evaluate the results according to their specifications.

## 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

Inoculate: 50-100 CFU (productivity) according to harmonized Eur. Pharmacopoeia and ISO 11133 standard.

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

### Growth

<i>Escherichia coli</i> ATCC® 8739, WDCM 00012	Good (≥70%)
<i>Staphylococcus aureus</i> ATCC® 6538, WDCM 00032	Good (≥70%)
<i>Bacillus subtilis</i> ATCC® 6633, WDCM 00003	Good (≥70%)
<i>Candida albicans</i> ATCC® 10231, WDCM 00054	Good (≥70%)
<i>Ps. aeruginosa</i> ATCC® 9027, WDCM 00026	Good (≥70%)
<i>Salmonella typhimurium</i> ATCC® 14028, WDCM 00031	Good (≥70%)
<i>Aspergillus brasiliensis</i> ATCC® 16404, WDCM 00053	Good (≥70%)
<i>L. monocytogenes</i> ATCC® 13932, WDCM 00021	Good (≥70%)
<i>Bacillus cereus</i> ATCC® 11778, WDCM 00001	Good (≥70%)
<i>Enterococcus faecalis</i> ATCC® 29212, WDCM 00087	Good (≥70%)
<i>Clostridium perfringens</i> ATCC® 13124, WDCM 00007, NCTC® 8237	Good (≥70%)
<i>Clostridium sporogenes</i> ATCC® 19404, WDCM 00008	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 11.0 (2023) 11th 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 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ISO 4973:2023. Quality control of culture media and diluents used in cosmetics standards.
- 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<sup>a</sup>R<sup>a</sup> (1992) Microbiología Alimentaria. Díaz de Santos S.A., Madrid.
- USP 31 - NF 26 (2008) <61> Microbial Limit Tests. US Pharmacopoeial Conv. Inc. Rockville. MD. USA
- USP 33 - NF 28 (2011)<62>Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. USP Corp. Inc. Rockville. MD. USA.
- USP 33 - NF 28 (2011) <71> Sterility Tests. Harmonised Method. USP Corp. Inc. Rockville. MD. USA.