

Specification

General purpose medium containing animal and plant peptone according to the European and US Pharmacopoeia Harmonised Method and ISO Standards.

Presentation

10 Prepared bottles
Bottles 250 ml
with: 200 ± 5 ml

Packaging Details

1 box with 10 bottles 250 ml. Plastic screw inner cap.

Shelf Life

16 months

Storage

2-25 °C

Composition

Composition (g/l):

Casein peptone.....	15.0
Soy peptone.....	5.00
Sodium chloride.....	5.00
Agar.....	15.0

Description /Technique

Description

TSA provided in bottles, is a general purpose medium which, after pouring into Petri dishes or tubes, supports the growth of nonfastidious as well as moderately fastidious microorganisms. In clinical microbiology, it is not used for the isolation of pathogens from clinical specimens but may be used for cultivating bacterial strains. After supplementation with blood, it may be used as a primary isolation medium in clinical microbiology.

In the pharmaceutical industry, TSA is used to determine the Total Aerobic Microbial Count (TAMC) of non-sterile pharmaceutical products. It complies with the European, United States Pharmacopoeia and Japanese (EP, USP, JP)

Directions for Use:

Melt the medium contained in the bottles in a water bath or in a microwave oven.

Once the medium has melted, the bottle can be kept in a water bath at 45-47°C for a maximum time of 8h.

Dispense liquid medium in appropriate containers.

Once solidified on a flat surface, 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 at 30-35°C and 20-25°C for 3-5 days for fungi (yeast & molds). Examined daily.

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.

Note: The solid mediums can be melted in different ways: autoclave, bath and, if the customer considers appropriate, also the microwave. Whenever the microwave option is chosen, it is necessary to take certain safety measures to avoid breaking of the containers, such as loosening the screw cap and putting the bottle or tube in a water bath in the microwave. The fusion temperature and time will depend on the shape of the container, the volume of medium and the heat source. Avoid overheating as both the heating periods.

Quality control
Physical/Chemical control

Color : Yellow-light amber pH: 7.3 ± 0.2 at 25°C

Microbiological control

Melt Medium - Prepare Plates - According to harmonized European and US Pharmacopoeia monographs, ISO standards and test methods

Spiral Spreading: Practical range 50 - 100 CFU (productivity).

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 30-35-37 °C. Read after 18-24 h to 72 h for bacteria and 3-5 days for fungi.

Fungi double incubation temperature 30-35 °C / 20-25 °C to 3-5 days

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>Ps. aeruginosa</i> ATCC® 9027, WDCM 00026	Good (≥70%)
<i>Salmonella typhimurium</i> ATCC® 14028, WDCM 00031	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	Good (≥70%)
<i>Clostridium sporogenes</i> ATCC® 19404, WDCM 00008	Good (≥70%)
<i>Stph. aureus</i> ATCC® 25923, WDCM 00034	Good (≥70%)
<i>Escherichia coli</i> ATCC® 11775, WDCM 00090	Good (≥70%)
<i>Ps. aeruginosa</i> ATCC® 10145, WDCM 00024	Good (≥70%)
<i>Candida albicans</i> ATCC® 10231, WDCM 00054 (20-25°C)	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.

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