Reference: 171114ZA **Technical Data Sheet**

Product: **Tryptic Soy Agar (TSA) (EP)**

Specification

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

Presentation

30 Membrane filtration plates
55 mm Plates for filtration purposes
with: 9 ± 1 ml

Packaging Details
1 box containing: 6 plastic bags with 5 plates of 55 mm/ bag.

Shelf Life	Storage
6 months	2-25 ºC

Composition

Composition (g/l):
Peptone from casein 15.0
Soya peptone..... 5.0
Sodium chloride..... 5.0
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.

Technique:
Collect, dilute and prepare samples and volumes to be filtered as required according to specifications, directives, official standard regulations and/or expected results.
Filter the sample through a 0.45 µm pore membrane and apply it onto the surface of the agar.
The inoculated plates are incubated at 30-35 º 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,...)
After incubation, enumerate all the colonies on the surface of the membrane.
Calculate total microbial count per ml of sample by multiplying the average number of colonies per membrane by the inverse dilution factor. Report results as Colony Forming Unit (CFU's) per ml along with incubation time and temperature.

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Quality control

Physical/Chemical control

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

Microbiological control

Growth Promotion Test 50-100 CFU according to harmonized Pharmacopoeia monographs (EP) and test methods & ISO 11133:2014/A1:2018
Membrane Filtration /Practical range 100 ± 20 CFU. min. 50 CFU (productivity)./10^4-10^6 CFU (selectivity)/ ≥10^3 CFU (specificity).

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

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

Microorganism	Growth
Escherichia coli ATCC® 8739, WDCM 00012	Good (≥70%)
Staphylococcus aureus ATCC® 6538, WDCM 00032	Good (≥70%)
Bacillus subtilis ATCC® 6633, WDCM 00003	Good (≥70%)
Candida albicans ATCC® 10231, WDCM 00054	Good (≥70%)
Ps. aeruginosa ATCC® 9027, WDCM 00026	Good (≥70%)
Salmonella typhimurium ATCC® 14028, WDCM 00031	Good (≥70%)
Aspergillus brasiliensis ATCC® 16404, WDCM 00053	Good (≥70%)
L. monocytogenes ATCC® 13932, WDCM 00021	Good (≥70%)
Bacillus cereus ATCC® 11778, WDCM 00001	Good (≥70%)
Enterococcus faecalis ATCC® 29212, WDCM 00087	Good (≥70%)
Clostridium perfringens ATCC® 13124, WDCM 00007, NCTC® 8237	Good (≥70%)
Clostridium sporogenes ATCC® 19404, WDCM 00008	Good (≥70%)
Stph. aureus ATCC® 25923, WDCM 00034	Good (≥70%)
Escherichia coli ATCC® 11775, WDCM 00090	Good (≥70%)

Sterility Control

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

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