Reference: 111114TI **Technical Data Sheet**

Product: **TSA TLHTh Agar-Double wrapping**

Specification

General purpose medium for isolation and culture of microorganisms with neutralisers.

Presentation

	Packaging Details	Shelf Life	Storage
20 Plates /Ird. 90 mm - Double wrapping with: 21 ± 2 ml	1 box with 2 cellophane bags (double wrapping) with 10 plates/bag. Side labeling. Every pack exhibitis a irradiation indicator stacked on the side of the bag.(8 -14kGy).	3,5 months	2-14 ºC

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 neutralising agents TLHTh (Tween 80 - Lecithin - Histidine - Sodium Thiosulphate) may inactivate a variety of disinfectants.

* The combination of lecithin, polysorbate 80 and histidine neutralises aldehydes and phenolic compounds.
* The combination of lecithin and polysorbate 80 neutralises the quaternary ammonium compounds.
* The polysorbate 80 neutralises hexachlorophene and mercurial derivates.
* Sodium thiosulphate neutralises halogen compounds.
* Lecithin neutralises clorhexidine.
* Histidine neutralises 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 (e.g. 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 º C for 24-72 h (bacteria) and 3-5 days for fungi (yeast & molds). Examined daily (Incubation times greater then 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.

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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
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.
Incubation 14 days at 32.5 ± 2 ºC: NO GROWTH.

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Storage

Storage conditions: 2-14ºC

Alternatively the plates may also be stored at the range of 2 - 25ºC, with a proper performance of the medium, but some precautions must be taken into account:

-In the range of 2 - 8 ºC avoid direct contact with surfaces that can freeze product.

-In the range of 15 - 25 ºC, dehydration control must be taking in account.