



# Technical Data

## Soyabean Casein Digest Agar w/ Yeast Extract and LTHTh

M1983

This medium is recommended in disinfectant testing where neutralization of the chemical is important for determining its bactericidal activity.

### Composition\*\*

Ingredients	Gms / Litre
Casein peptone	15.000
Soya peptone	5.000
Yeast extract	6.000
Sodium chloride	5.000
Sodium pyruvate	2.000
Soya lecithin	0.700
Polysorbate 80 (Tween 80)	5.000
Sodium thiosulphate,5H <sub>2</sub> O	0.050
L-Histidine	1.000
Agar	20.500
Final pH ( at 25°C)	7.3±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 60.23 grams (the equivalent weight of dehydrated medium per litre) in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and pour into sterile Petri plates.

### Principle And Interpretation

Soyabean Casein Digest Agar w/ yeast extract and LTHTh is used for the detection and enumeration of microorganisms for products of sanitary importance, water miscible cosmetics, Products containing antimicrobials or preservatives (1)

Casein peptone,soya peptone and yeast extract provides nitrogenous compounds and other essential growth factors.

Sodium pyruvate protects injured cells and helps recovery It also stimulates the growth of *Staphylococcus species* . Lecithin, polysorbate 80 (Tween 80) and thiosulphate act as neutralizing agents that neutralizes the activity of antimicrobial agents. Lecithin and polysorbate 80 neutralizes quaternary ammonium compounds and parahydroxy benzoates. Sodium thiosulphate neutralizes mercurial, halogens, aldehydes etc. Histidine acts as a reducing agent.

Collection of samples from areas before and after the treatment with disinfectant evaluates cleaning procedures in environmental sanitation. The presence and number of microorganisms is determined by the appearance of colonies on the agar surface (2).

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Colour and Clarity of Prepared Medium

Light to medium amber coloured, clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 6.02% w/v aqueous solution at 25°C. pH : 7.3±0.2

#### pH

7.10-7.50

#### Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

#### Cultural Response

Organism	Growth	Growth w/ disinfectant
<b>Cultural Response</b> <i>Escherichia coli</i> ATCC 25922	luxuriant	fair-good, (depends on concentration of quarternary ammonium compounds)
<i>Pseudomonas aeruginosa</i> ATCC 27853	luxuriant	fair-good, (depends on concentration of quarternary ammonium compounds)
<i>Staphylococcus aureus</i> ATCC 25923	luxuriant	fair-good, (depends on concentration of quarternary ammonium compounds)

### Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8 °C. Use before expiry date on label.

### Reference

- Hall and Hartnett, 1964, Public Hlth. Rep., 79:1021.
- Murray PR, Baron, Pfaller, and Tenover (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.

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