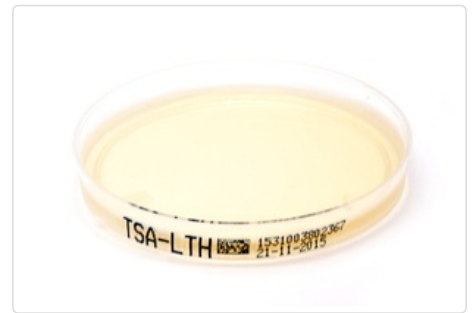


## Tryptic Soya Agar acc. to EP/USP/JP with LTH (TSA-LTH)

Recommended by the Harmonised European Pharmacopoeia, supplemented with Lecithin, Polysorbate 80 (Tween 80) and L-Histidine

<b>Shorthand symbol:</b>	TSA-LTH
<b>Item number:</b>	40-1531
<b>Format:</b>	Petri Dish, 90mm
<b>Colour:</b>	Yellowish
<b>Storage conditions:</b>	Dry, in closed bag at 15 – 22°C.
<b>Shelf-life:</b>	6 Months
<b>pH:</b>	7.3 ± 0.2 at 25°C



### Intended use and fields of application

Tryptone Soya Agar is used for the microbiological examination of non-sterile products. It contains two peptones, which support the growth of a wide variety of organisms. It is suitable for the cultivation of both aerobic and anaerobic bacteria. The later is grown either in deep cultures or by incubation under anaerobic conditions as well as yeasts and moulds.

The high number of microorganisms detectable using Tryptone Soya Agar is due to the addition of peptones gained from enzymatic hydrolysis of casein protein and soya proteins. It includes: the detection of *Listeria* spp, *Pasteurella* spp, *Vibrio* spp, *Haemophilus vaginalis* or *Candida* spp.

Tryptone Soya Agar contains no carbohydrates, so it can be used in the investigation of haemolytic reactions. The Pharmacopoeia European (PhEur) recommends TSA for the enumeration of Total Viable Count in products under examination for microbial load.

The addition of Lecithin, Tween 80 and Histidine components neutralise the inhibitory effects of aldehydes, phenols, Hexachlorophene, chlorhexidine, formaldehyde and quarternary ammonium compounds used for preservatives, cleaning and disinfection agents.

### Typical composition in g/l

#### in g per 1 litre of Nutrient medium

Pancreatic-digest of Casein Peptone	15.0
Enzyme-digest of Soya Bean Pepton	5.0
Sodium Chloride	5.0
Lecithin	0.7
Tween 80	5.0
L-Histidine	0.5
Agar	15.0

\*Adjusted as required to meet performance standards

## Microbiological quality control

The Microbiological Performance Test is carried out in accordance with the requirements of PhEur. (Microbiological Examination of Non-Sterile Products in accordance with Chapter 2.6.13).

### Productivity

Incubation conditions: 2–3 days at 30–35°C; Inoculum concentration: 10–100 CFU

Organism	Type Strain	Specification	Colony morphology
Staphylococcus aureus	ATCC 6538 / WDCM 00032	50–200 %	Medium, slightly yellowish colonies
Pseudomonas aeruginosa	ATCC 9027 / WDCM 00026	50–200 %	Medium, slightly yellowish colonies
Bacillus subtilis	ATCC 6633 / WDCM 00003	50–200 %	Large, flat, dry, irregularly shaped colonies
Candida albicans	ATCC 10231 / WDCM 00054	50–200 %	Small, white, dry colonies
Aspergillus brasiliensis	ATCC 16404 / WDCM 00053	50–200 %	Dark brown to black conidia on light mycelium
Candida albicans (3–5 days at 20–25°C)	ATCC 10231 / WDCM 00054	50–200 %	Small, white, dry colonies
Aspergillus brasiliensis (3–5 days at 20–25 °C)	ATCC 16404 / WDCM 00053	50 – 200 %	Dark brown to black conidia on light mycelium

### Microbial contamination

Incubation conditions: 5–7 days at 20–25°C and 5–7 days at 30–35 °C

### Specification

No growth present