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Technical Data Sheet

Tryptic Soya Agar (MML-TRSA-01)

Principle
Tryptic Soya Agar is used for cultivation of a wide variety of organisms. The medium is a highly nutritious composed of tryptone, soya peptone, sodium chloride, dextrose, Dipotassium hydrogen phosphate and agar. Tryptone, papain digest of soy peptone provides ample amount of the carbon and nitrogen source and trace. Dextrose is carbon source. Phosphate is buffering agent. Sodium chloride maintains the osmotic balance and agar is used as solidifying agent. Media is specially used for the cultivation of *Salmonella typhimurium* from clinical and non-clinical samples, food and dairy products. In addition to that it is also used for isolation, cultivation and maintenance of other fastidious organisms too.

Use: Recommended for the isolation and cultivation and maintenance of *Salmonella typhimurium* from clinical and non-clinical samples.

Contents*

Ingredients	**Gram/Litre**
Tryptone	17.00
Soya Peptone	3.00
Sodium Chloride	5.00
Dextrose	2.50
Dipotassium hydrogen phosphate	2.50
Agar	15.00
pH at 25˚C	7.3 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 45.00 grams in 1000 ml distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 42-45 °C and distribute aseptically in petri plates and allow to solidify. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed
Pharmaceutical samples, clinical and non-clinical sample.

Precautions to be taken
These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving.Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation
The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Light beige colored, free-flowing, homogeneous
Reaction of 4.5% solution	7.30 ±0.2 at 25 ˚C
pH	7.10- 7.50
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Light amber, clear opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 ºC for 18-72 h

Indicative properties	Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	ATCC	Growth	Recovery (%)	Incubation
Salmonella typhi	6539	Luxurious	92.31	30-37°C, 18-24 hrs
Staphylococcus aureus	25923	Luxurious	90.22	30-37°C, 18-24 hrs
Bacillus spizizenii	6633	Luxurious	90.80	30-37°C, 18-24 hrs
Pseudomonas aeruginosa	27853	Luxurious	88.30	30-37°C, 18-24 hrs
Escherichia coli	8739	Luxurious	91.86	30-37°C, 18-24 hrs
Candida albicans	10231	Luxurious	60-46%	30-37°C, 24-72 hrs
Aspergillus brasiliensis	16404	Luxurious	72.41%	30-37°C, 24-72 hrs
Clostridium sporogenes	19404	Luxurious	60.43%	30-37°C, 24-72 hrs

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.

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