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Technical Data Sheet

Tryptic Soy Broth (Soybean Casein Digest Broth) (MML-TRSB-01)

Principle
Tryptic Soy Broth is composed of tryptone, soy peptone, dextrose, sodium chloride and dipotassium phosphate. Tryptone and soy peptone provide nitrogen and other essential nutrients. Dextrose is a carbon source, serves as energy source for optimum growth. Sodium chloride maintains osmotic balance, while di-potassium phosphate is a buffering agent. It is general purpose medium used for cultivation of fastidious and non-fastidious organisms.

Use: Recommended for cultivation of wide variety of microorganism.

Contents*

Ingredients	**Gram/Litre**
Tryptone	17.000
Soy peptone	3.000
Dextrose	2.500
Sodium chloride	5.000
Dipotassium phosphate	2.500
pH at 25˚C	7.3 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 30.00 grams in 1000 ml distilled water; boil to dissolve the medium completely and distribute aseptically. Sterilize by autoclaving at 15 lbs. pressure (121 °C) for 15 min, cool it to 42-45 °C and inoculate test sample aseptically.

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

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 hygroscopic powder.
Reaction of 3.0% solution	7.3 ±0.2 at 25 ˚C
pH	7.10- 7.50
Color and clarity of ready medium	Light amber colored clear solution.
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	Inoculum	Growth	Incubation
Escherichia coli	8739	50-100	Luxuriant	33-37 ℃, 18-48 h
Staphylococcus aureus	6538	50-100	Luxuriant	33-37 ℃, 18-48 h
Salmonella typhimurium	14028	50-100	Luxuriant	33-37 ℃, 18-48 h
Pseudomonas aeruginosa	10145	50-100	Luxuriant	33-37 ℃, 18-48 h
Bacillus spizizenii	6633	50-100	Luxuriant	33-37 ℃, 18-48 h
Staphylococcus aureus	25923	50-100	Luxuriant	33-37 ℃, 18-48 h
lactobacillus plantarum	8014	50-100	Luxuriant	33-37 ℃, 18-48 h
Saccharomyces cerevisiae	9736	50-100	Luxuriant	33-37 ℃, 18-48 h

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. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
2. Rand, M. C., Arnold E. Greenberg, and Michael J. Taras, (1976), *Standard methods for the examination of water and wastewater*. Prepared and published jointly by American Public Health Association, American Water Works Association, and Water Pollution Control Federation.
3. MacFaddin, J. D. (1985). *Media for isolation-cultivation identification-maintenance of medical bacteria*, p. 797, Vol. 1. Williams & Wilkins, Baltimore, MD

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