

## TMT 015- DILUENT TSB WITH CAP 4

### INTENDED USE

For total aerobic microbial, count of water soluble specimens to be tested in pharmaceuticals, cosmetic etc.

### PRODUCT SUMMARY AND EXPLANATION

Tryptone Soya Broth is recommended by various pharmacopeias as a sterility testing and as a microbial limit testing medium. This medium is a highly nutritious medium used for cultivation of a wide variety of organisms.

### COMPOSITION

Ingredients	Gms / Ltr
Pancreatic digest of casein	17.000
Papaic digest of soyabean meal	3.000
Sodium chloride	5.000
Dextrose	2.500
Dibasic potassium phosphate	2.500
Cap 4 /100 ml	25.000ml
Lecithin	2.000
Peptone	1.000
Tween 80	14.000
Tamol	3.000
Distilled water	75.000ml

### PRINCIPLE

The combination of pancreatic digest of casein and papaic digest of soyabean meal makes the medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Dextrose and dibasic potassium phosphate serve as the carbohydrate source and the buffer, respectively in the medium. Sodium chloride maintains the osmotic balance of the medium. Cap 4 added to the medium is a mixture of dispersant and neutralizers that are reported to disperse the hydrophobic copolymer and to inactivate residual disinfectants in the sample. This medium can thus be used for detection and enumeration of microbial counts in a wide variety of samples.

### INSTRUCTION FOR USE

Inoculate the sample and incubate at specified temperature and time.

### QUALITY CONTROL SPECIFICATION

Appearance of prepared medium	:	Dark amber coloured, clear solution.
Quantity of Medium	:	10 ml of medium in tubes.
pH (at 25°C)	:	7.3 ± 0.2
Sterility Check	:	Passes release criteria

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period



Growth promoting					
<i>Bacillus subtilis</i>	6633	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Streptococcus pneumoniae</i>	6305	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Micrococcus luteus</i>	9341	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Staphylococcus aureus</i>	6538	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Escherichia coli</i>	8739	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	9027	50-100	Luxuriant	30-35 °C	18-24 Hours
<i>Salmonella typhimurium</i>	14028	50-100	Luxuriant	30-35 °C	18-24 Hours

### PACKAGING:

Pack of 25 Ready-To-Use Liquid Medium tubes containing 10 ml in each tube.

Pack of 50 Ready-To-Use Liquid Medium tubes containing 10 ml in each tube.

### STORAGE

On receipt, store tubes in the dark at 10-25 °C. Avoid freezing and overheating. Do not open until ready to use. Minimize exposure to light. Tubed media stored as labeled until just prior to use may be inoculated up to the expiration date and incubated for the recommended incubation times. Allow the medium to warm to room temperature before inoculation.

### DISPOSAL

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques.

### REFERENCES

1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C
2. Engley and Dey, 1970. Chem. Spec. Manuf. Assoc. Proc., Mid-Year Meet., p. 100.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
6. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
**Revision: 25<sup>th</sup> March. 2022**

