

## Tryptone Soya Broth with 4% Polysorbate 20 and 0.5% Lecithin (Twin Pack)

### Intended Use

Tryptone Soya Broth with 4% Polysorbate 20 and 0.5% Lecithin is a general-purpose medium recommended for sanitary examination of surfaces.

### Summary

This medium is recommended for sanitary examination of surfaces. Weber and Black had described the importance of a highly nutritional medium containing neutralizing agents for neutralizing quaternary ammonium compounds. For the microbiological examination of surfaces, RODAC (Replicate Organism Detection and Counting) and surface plates are used. Microbiological examination of surfaces before and after treatment with disinfectant provides data about cleanliness, which is used for validation of cleaning procedures in environmental sanitation. It is further recommended for microbiological examination of food products, nutritional and dietary supplements.

### Principle

Casein enzymic hydrolysate and papaic digest of soyabean meal serves as a source of nitrogen. Sodium chloride provides sodium ions for the membrane transport and maintains osmotic equilibrium of the medium. Lecithin and Polysorbate 80 inactivates disinfectant. Lecithin neutralizes quaternary ammonium compounds and tween 80 neutralizes substituted phenolic disinfectant.

### Formula\*

Ingredients	g/L
<b>Part A</b>	
Casein Enzymic Hydrolysate	17.0
Papaic Digest of Soyabean Meal	3.0
Sodium Chloride	5.0
Dextrose (Glucose)	2.5
Dipotassium Hydrogen Phosphate	2.5
Soya Lecithin	5.0
<b>Part B</b>	
Polysorbate 20 (Tween 80)	40.0
Final pH (at 25°C)	7.3 ± 0.2

\*Adjusted to suit performance parameters.

### Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C -8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

### Type of Specimen

Pharmaceutical sample

### Specimen Collection and Handling

1. Ensure that all samples are properly labelled.
2. Follow appropriate techniques for handling samples as per established guidelines.
3. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
4. The samples must be stored and tested within the permissible time duration.
5. After use, contaminated materials must be sterilized by autoclaving before discarding.

### Directions

1. Suspend 35.0 grams of Part A in 960 ml purified / distilled water.
2. Heat if necessary to dissolve the powder completely.
3. Add 40 ml of Part B.
4. Mix well and dispense into tubes or flasks as desired.
5. Sterilize by autoclaving at 121°C (15psi) for 15 minutes as per validated cycle.

### Quality Control

**Dehydrated Appearance:** Part A: Cream to yellow coloured, homogeneous, free flowing powder.

Part B: Colourless, clear viscous liquid.

**Prepared Appearance:** Yellow coloured, slightly opalescent solution with precipitation.

**Cultural Response:** Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours ( for fungal species incubate at 25-30°C for 24-48 hours).

Organism (ATCC)	Growth	Incubation Temperature	Incubation Period
<i>Escherichia coli</i> (8739)	Good	35-37°C	18 Hours
<i>Escherichia coli</i> (25922)	Good	35-37°C	18 Hours
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (6538)	Good	35-37°C	18 Hours
<i>Pseudomonas aeruginosa</i> (9027)	Good	35-37°C	18 Hours
<i>Bacillus spizizenii</i> (6633)	Good	35-37°C	18 Hours
<i>Candida albicans</i> 3147 (10231)	Good	25-30°C	24 Hours

### Cultural Response Test in presence of Quaternary Ammonium Compound:

Organism (ATCC)	Expected Test	Expected Control	Incubation Temperature	Incubation Period
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (6538)	Good	Inhibited	35-37°C	18 Hours
<i>Bacillus spizizenii</i> (6633)	Good	Inhibited	35-37°C	18 Hours

**Test** - Tryptone Soya Broth w/ 4% Polysorbate 20 & 0.5% Lecithin (Twin Pack).

**Control** - Soyabean Casein Digest Medium.

### Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

### Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

### References

1. Weber and Black, 1948, Soap and Sanitary Chemicals, 24:134.
2. Weber and Black, 1948, Am. J. Public Health, 38:1405.
3. Favero (chm.), 1967, Microbiological Sampling of Surfaces, Biological Contamination Control Committee, American Asso. for Contamination Control.
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
5. 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.
6. Vesley D., Keenan K. M., AND Halbert M. M. 1966. Appl. Environ. Microbiol. 14: 203- 205.
7. Brumer B, 1976 Appl. Environ. Microbiol. 32:80.
8. Data on file: Microexpress®, A Division of Tulip Diagnostics (P) Ltd.

### Product Presentation:

Cat No.	Product description	Pack Size
201200310500	Dehydrated Culture Media	500 g

### Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.