Lauryl Tryptose Mannitol Broth W / Tryptophan

Intended Use
Lauryl Tryptose Mannitol Broth w/ Tryptophan is used for the confirmation of *Escherichia coli* in drinking water.

Summary
Identification of bacteria that constitute the coliform group sometimes is necessary to determine the nature of pollution. It is of particular importance in reference to distinguishing the presence of *Escherichia coli*, an indicator of fecal contamination. Lauryl Tryptose Mannitol Broth w/ Tryptophan is a single tube medium used for the confirmation of *E. coli* in drinking water. This medium is also recommended by the ISO committee and is also a suitable medium as per the requirements of the EC Directive for the quality of drinking water. This medium may be used in parallel to Lauryl Tryptose Broth to detect nonlactose fermenting strains of *E. coli*.

Principle
Tryptose is the source of carbon, nitrogen, vitamins, amino acids and other essential growth requirements. Mannitol is the fermentable carbohydrate. Phosphates buffer the medium whereas sodium lauryl sulphate serves to inhibit accompanying non-coliform bacteria. L-tryptophan is a substrate of tryptophan deaminase enzyme.

Formula*

Ingredients	**g/L**
Tryptose	20.0
Mannitol	5.0
Sodium Cholride	5.0
Dipotassium Phosphate	2.75
Monopotassium Phosphate	2.75
Sodium Lauryl Sulphate	0.10
L-Tryptophan	0.20
Final pH (at 25°C)	6.8 ± 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
Water samples

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

Directions
1. Suspend 35.80 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Warm slightly to dissolve the powder completely.
4. Dispense into tubes containing inverted Durham's tubes.
5. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: Cream to yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Yellow coloured, clear solution without any precipitate.
Cultural Response: Cultural characteristics observed after an incubation at 44°C for 18-24 hours.

Organism (ATCC)	Growth	Gas	Indole Production
Escherichia coli (25922)	Good	+	+
Klebsiella aerogenes (13048)	Inhibited	-	-
Staphylococcus aureus subsp. *aureus* (25923)	Inhibited	-	-

Interpretation of Results

E. coli is confirmed by gas and indole production when incubated at 44°C for 24 hours. If the indole test is negative even if in a single tube medium, repeat the test in Tryptone Water.

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.

Reference

1. Departments of the Environment, Health and Social Security and Public Health Laboratory Service, 1982, The Bacteriological Examination of Drinking Water Supplies, Report on Public Health and Medical Subjects No. 71, HMSO, London.
2. International Organization for Standardization (ISO), 1990, Draft ISO/DIS 9308.
3. Joint Circular 20/82, Departments of the Environment, 1982, incorporating EC Directive relating to the Quality of Water intended for Human Consumption (80/778/EEC), HMSO, London.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201120140100	Dehydrated Culture Media	100 g
201120140500	Dehydrated Culture Media	500 g