

Letheen Broth

Intended Use

Letheen Broth is a medium recommended for determination of bactericidal activity of quaternary ammonium compounds using *Escherichia coli* or *Staphylococcus aureus*.

Summary

Letheen Broth is used to determine the phenol co-efficient of cationic surfactants as recommended by the Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC). It is also used in hygiene swabbing protocols where it is necessary to neutralize quaternary ammonium compounds. A modification of FDA Broth, Letheen Broth is easily prepared and has a clear appearance aiding in visual inspection for growth.

Principle

Beef extract, casein enzymic hydrolysate, supply essential nutrients and other trace elements for the microbial growth. Lecithin and polysorbate 80 enables the recovery of bacteria from solutions containing residues of disinfectant used in sanitization of utensils and equipments. Lecithin neutralizes quaternary ammonium compounds and polysorbate 80 neutralizes phenolic disinfectants, hexachlorophene and formalin. Dehydrated medium may appear moist with brown sugar appearance, which does not indicate deterioration.

Formula*

Ingredients	g/L
Peptic Digest of Animal Tissue	10.0
Beef Extract	5.0
Sodium Chloride	5.0
Lecithin	0.7
Polysorbate 80	5.0ml
Final pH (at 25°C)	7.0 ± 0.2

*Adjusted to suit performance parameters.

Directions

1. Bring the Letheen Broth vial to the room temperature 22°C-30°C.
2. Use Letheen Broth as per required application.

Quality Control

Appearance: Light amber coloured, clear solution without any precipitate.

Cultural Response: Cultural characteristics observed after an incubation of 24-48 hours at 35-37°C.

Organism (ATCC)	Growth
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (25923)	Good
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (6538)	Good
<i>Escherichia coli</i> (25922)	Good

Note: Inoculum cfu for good growth is 10-100.

Remarks

1. Do not use media bottles that exhibit any damage, cracks, microbial contamination, discoloration, drying or other sign of deterioration.
2. Ensure that the temperature of water bath is at 100°C so that the medium melts completely. Cooler water baths give rise to lumpy, uneven medium.
3. Before pouring into sterile petriplates, gently swirl the bottle to check whether the entire contents are properly mixed and melted.
4. Good laboratory practices and hazard precautions must be observed at all times.
5. After use media containers, prepared plates, sample, sample containers and other contaminated materials must be sterilized or incinerated before discarding.

Storage and Stability

1. Store the ready to use Letheen Broth at 15°C-25°C in a cool, dry place away from light.
2. Stability of the kit is as per expiry date mentioned on the label.

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. Association of Analytical Chemists,(1995). Official methods of analysis, 16th edition, section 6. Association of Official Analytical Chemists, Washington, D.C.
2. Roberts, D., Hooper, W. and Greenwood, M. (1995). Methods for the examination of food for micro-organisms of public health significance, 2nd edition, section 5.10, Practical Food Microbiology. Butler & Tanner. ISBN 0 901144 36 3.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat. No.	Product Description	Pack Size
203120700090	Bottle Media	10 x 90 mL

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.
