

# Lethen Agar

Medium used for the identification and determination of phenol coefficient of quaternary ammonium compounds.

## • CONTENTS (Liter)

Beef Extract	3.0 g
Peptone	5.0 g
Dextrose	1.0 g
Tween 80	7.0 g
Lecithin	1.0 g
Agar	15.0 g
Final pH = 7.0 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 32.0 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

## • INTERPRETATION

Lethen Agar is a medium used for determining the phenol coefficient of quaternary ammonium compounds. Peptone and beef extract provide nitrogen, carbon, vitamins and minerals in the medium. Dextrose is the carbohydrate. The medium contains tween 80 and lecithin, neutralizing agents for quaternary ammonium compounds contained in sanitizers. Lecithin neutralizes quaternary ammonium compounds and tween 80 neutralizes phenols, hexachlorophene, formalin, and with Lecithin, ethanol. Agar is the solidifying agent.

## • TECHNIC

Inoculate the plates with spreading the specimen on surface of the medium using a sterile loop. Incubate at 35 ± 2°C for 40 - 48 hours. Refer appropriate references and procedures for results.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: moist appearance, with a tendency to clump

Color: beige

### Prepared medium

Appearance: slightly opalescent, may have a slight precipitate

Color: light amber

Incubation conditions: 35 ± 2°C / 40 - 48 hours

Microorganism	ATCC	Inoculum CFU	Growth
<i>Escherichia coli</i>	25922	50-100	good
<i>Staphylococcus aureus</i>	6538	50-100	good
<i>Salmonella typhimurium</i>	14028	50-100	good

## • STORE

The powder is very hygroscopic. Store the powder at 2 - 8°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2 - 8°C.

## • REFERENCES

1. Weber, G.L, and L.A. Black (1948). Soap and Sanit. Chem. 24:134-139.
2. Official methods of analysis, 16th ed. (1995). Association of Official Analytical Chemists, Washington, D.C.
3. Standard test method for preservatives in water containing cosmetics, E 640-78. (1991). Annual Book of ASTM Standards, Philadelphia, PA.

## • PACKAGE

Cat. No : MB-L1076 Lethen Agar	500 G
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## • MICROBIAL CULTURE IMAGES



*Escherichia coli* ATCC 25922 (100 CFU)

Incubation conditions : 35±2°C 24h