OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

Coliform PA Broth

Principle

Coliform PA Broth is composed of casein enzymic hydrolysate, pancreatic digest of gelatin, beef extract lactose, dipotassium phosphate, monopotassium phosphate, sodium chloride, sodium lauryl sulphate, bromocresol purple. Casein enzymic hydrolysate, pancreatic digest of gelatin, and beef extract provide nitrogen, amino acids, vitamins, and other trace factors that are essential for the growth of fastidious microorganisms. Lactose serves as a carbon source. Dipotassium phosphate, monopotassium phosphate provides good buffering capacity. Sodium chloride maintains the osmotic equilibrium. Sodium lauryl sulphate is inhibitory to many undesired microorganisms. Bromocresol purple is a pH indicator. Fermentation lactose is detected by changing the color from purple red to yellow.

Experimental Procedure

1. **Prepared triple strength Coliform PA Broth in a 250 ml screw cap bottle.**
2. **Add 100 ml of water samples and mix well.**
3. **Incubate aerobically at 35 ± 2°C for 24 to 48 hours. (Note: Make sure the bottle cap is loose.).**
4. **Fermentation of lactose changes the color of the broth yellow.**
5. **To identify gas formation, the bottles are shaken gently to observe bubble formation.**

Use: For determination of presence or absence of coliform bacteria in treated water.

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Contents*

Ingredients	Gram/Liter
Casein enzymic hydrolysate	10.000
Pancreatic digest of gelatin	5.000
Beef extract	3.000
Lactose	7.500
Dipotassium phosphate	1.375
Monopotassium phosphate	1.375
Sodium chloride	2.500
Sodium lauryl	0.050
sulphate	0.0085
Bromocresol purple	6.8 ± 0.2
pH at 25˚C	

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 92.42 grams in 1000 ml distilled water. Boil to dissolve the medium completely. Distribute 50 ml in the screw cap bottles. Sterilize by autoclaving at 15 lbs. pressure (121 °C) for 15 min, and inoculate test sample aseptically.

Specimens types analyzed

Treated, drinking water sample etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

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Quality Control

Appearance	**Beige with bluish purple tinge colored, free flowing, homogeneous powder**
Reaction of 9.24% solution	**6.8 ± 0.2 at 25 ˚C**
pH	**6.60 – 7.00**
Color and clarity of ready medium	**Purple red color, clear solution**
Growth Promotion properties	**Best at ≤ 100 CFU at 32-37 ºC for 18-72 h**
Indicative properties	**Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h**
Negative control	**Performed using sterile distilled water**

Different Microbial Response: Prepare media as per label directions. Inoculate and incubate at 35 ± 2°C for 18-48 hours. Inoculum 50-100 CFU.

Organism	ATCC	Growth	Acid production	Gas production
Escherichia coli	8739	Luxuriant	Positive, Yellow color	Positive
Escherichia coli	25922	Luxuriant	Positive, Yellow color	Positive
Klebsiella aerogenes	13048	Luxuriant	Positive, Yellow color	Positive
Salmonella typhimurium	14028	Luxuriant	Negative, no color change	Negative
Staphylococcus aureus	25923	Inhibited	--	--

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.
Note: Sterilize media immediately after reconstitution

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

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