

A1 Broth

Medium used for the identification and determination of faecal coliforms in water.

• CONTENTS (Liter)

Tryptone	20.0 g
Lactose	5.0 g
Sodium Chloride	5.0 g
Salicin	0.5 g
Triton X 100	1.0 g
Final pH = 6.9 ± 0.2 at 25°C	

• PROCEDURE

Suspend 31.5 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 10 minutes. Cool to 45 - 50°C in water bath. Pour into tubes with durham tubes.

• INTERPRETATION

A1 Broth is a medium used for the identification and determination of faecal coliforms in water. Tryptone provides nitrogen, carbon, vitamins and minerals for the growth of microorganisms. Lactose and salicin are used for energy sources. Sodium chloride maintains the osmotic balance. Triton X 100 is a surfactant.

• TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at 35 ± 2°C for 3 hours and then 44.5°C for 21 ± 2 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: moist appearance, with a tendency to clump

Color: light beige

Prepared medium

Appearance: clear

Color: light amber

Incubation conditions: 35 ± 2°C / 3 hours and then 44.5°C / 21 ± 2 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Escherichia coli</i>	8739	50-100	good	Gas +
<i>Escherichia coli</i>	25922	50-100	good	Gas +
<i>Enterobacter aerogenes</i>	13048	50-100	good	Gas + / -
<i>Bacillus subtilis</i>	6633	50-100	inhibited	-

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Andrews, W.H., C.D. Diggs., and C.R.Wilson (1975). Appl. Microbiol. 29:130-131.
2. Andrews., W.H., and M.W. Presnell (1972). Appl. Microbiol. 23:521-523.
3. Eaton, A.D., L.S. Clesceri, and A.E. Greenberg (ed.) (1995). Standards methods for the examination of water and wastewater, 19 th Edition. American Public Health Association, Washington D.C.

• PACKAGE

Cat. No : MB-A1105 A1 Broth	500 G
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