PRODUCT DATA SHEET

A - 1 MEDIUM TM 001

For determination of faecal coliforms in water and foods by two – step MPN technique

Composition

Ingredients	g/L
Tryptone	20.00
Lactose	5.00
Sodium chloride	5.00
Salicin	0.50
Triton X - 100	1.00 ml

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 31.50g in 1000ml of distilled water. Gently heat to boil with gentle swirling and dissolve the medium completely. Dispense the medium in culture tube or as desired, place Durham's tube inverted in the culture tube. Sterilize by autoclaving at 15 psi (121ºC) for 15 minutes. Cool to room temperature prior to use.

Appearance: Light amber, clear, may have a flocculent precipitate
pH (at 25°C): 6.9 ± 0.2

Principle

A-1 MEDIUM used for determination of faecal coliforms in samples by - two steps MPN technique. Andrews and Presnell developed the medium.

Tryptone provides the nitrogen, vitamins, minerals and amino acids. Lactose as a carbon source, in combination with Salicin, provides energy for growth. Sodium chloride maintains osmotic balance and Triton X-100 as surfactant. This medium recovers *Escherichia coli* from estuarine water in 24 hours instead of 72 hours and in large number without the pre - enrichment step. This medium was devised to reduce the recovery time.

Microbiological parameters (Growth promotion test)

Cultural characteristics observed after inoculation (10^3CFU / ml) Step-1 at 35 ± 2°C for three hours (pre-incubation) and subsequent incubation Step-2 at 44.5ºC for 19 - 22 hours.

Test strains	ATCC	Inoculum (CFU/ml)	Growth	Gas production
Escherichia coli	25922	10^3	Good	+
Enterobacter aerogenes	13048	10^3	Poor - good	-
Enterococcus faecalis	19433	10^3	None - poor	-
Bacillus subtilis	6633	10^3	None	-

References

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