



Teepol Broth (Twin Pack)

M529

Teepol Broth (Twin Pack) is used for selective isolation and identification of enteric lactose fermenting bacteria.

Composition**

Ingredients	Gms / Litre
Part A	-
Peptic digest of animal tissue	20.000
Lactose	10.000
Sodium chloride	5.000
Phenol red	0.020
Part B	-
Teepol	1.000
Final pH (at 25°C)	7.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 35.02 grams of Part A and then add 1 gram of Part B in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense in tubes containing inverted Durham's tubes. Sterilize by autoclaving at 15 lbs pressure at (121°C) for 15 minutes.

Principle And Interpretation

Faecal coliform bacteria are a group of bacteria passed through faecal excrement of humans, livestock and wild life. They are used as indicators of faecal pollution in water such as waste waters, effluents, rivers, marine environments, recreational waters and raw sources of drinking water supplies.

The use of teepol in place of bile salts was previously recommended by Jameson and Emberley (1). Burman (2) showed that if a preliminary incubation is carried out at lower temperature resuscitation is not required. Non-chlorinated organisms benefit from 4 hours incubation at 30°C but chlorinated organisms require 6 hours incubation at 25°C.

The coliform and *Escherichia coli* count are made on separate volumes of water. The water samples are filtered through membrane filter and this filter is placed face upwards on an absorbent pad saturated with Teepol Broth. The yellow colonies formed are further identified.

Presumptive coliform organisms : Yellow colonies from membranes incubated at 35°C, when subcultured in Lactose Peptone Water produce gas at 35°C after 43 hours.

Presumptive *Escherichia coli* : Yellow colonies from membrane at 44°C when subcultured into Lauryl Tryptose Mannitol Broth, incubated at 44°C produce gas and indole after 24 hours.

Quality Control

Appearance

Part A : Light yellow to light pink homogeneous free flowing powder Part B : Colourless viscous solution

Colour and Clarity of prepared medium

Red coloured clear to slightly opalescent solution

Reaction

Reaction of (3.5% w/v Part A + 0.1% v/v Part B) aqueous solution at 25°C. pH : 7.6±0.2

pH

7.40-7.80

Cultural Response

M529: Cultural characteristics observed after an incubation for 24-48 hours at following temperatures.

Organism	Growth at 35-37°C	Growth at 43-45°C
<i>Escherichia coli</i> ATCC 25922	good-luxuriant	good-luxuriant
<i>Enterobacter aerogenes</i> ATCC 13048	good-luxuriant	inhibited

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1. Jameson J.E. and Emberley N.W., 1956, J. Gen. Microbiol., 15:198.
2. Burman N.P., 1967 b, Rec. Adv. in Bacteriological Examination of Water, Collins C. H. (Ed.), Butterworth, London, pg. 185.

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