

Specification

Liquid medium used for the detection and enumeration of coliform bacteria according to IDF-FIL 73B and ISO Standards.

Presentation

	Packaging Details	Shelf Life	Storage
20 Tubes Tube 17 x 145 mm with: 10 ± 0,2 ml	17x145 mm glass tubes, ink labelled, metal-Non injectable cap. - 20 tubes per box. and Durham tube	12 months	8-25°C

Composition

Composition (g/l):

Tryptose.....	40.0
Lactose.....	10.0
Sodium chloride.....	10.0
Dipotassium hydrogen phosphate.	5.5
Potassium dihydrogen phosphate.	5.5
Sodium lauryl sulfate.....	0.2

Description /TechniqueDescription:

Lauryl sulfate broth is used for the MPN Presumptive Test of coliforms in water and sewage, confirmatory test of lactose fermentation with gas production for milk and detection of coliforms in food.

The high nutrient quality and the presence of phosphate buffer in this medium ensure rapid growth and increased gas production, even by slow lactose-fermenting coliforms.

Indol production is observed by adding a few drops of Kovacs' Reagent to the broth (with or without previous extraction) and shaking gently. Formation of a red ring indicates indol production.

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results. Dispense liquid medium in appropriate containers if the original container is of large volume.

Inoculate aseptically the tubes with the prepared sample or its dilution.

Incubate the tubes tightly closed aerobically at 35-37°C for up to 48 hours.

Read the turbidity increase as growth indicator.

(Incubation times, temperature and sample volumes may vary depending on the sample, on the specifications...)

Presumptive isolation / recovery of coliforms must be confirmed by further microbiological and biochemical tests. Lauryl Sulphate largely inhibits the growth of undesired bacteria.

Each laboratory must evaluate the results according to their specifications.

Quality control**Physical/Chemical control**

Color : Orange pH: 6.8 ± 0.3 at 25°C

Microbiological control

Inoculate: Practical range 100 ± 20 CFU; Min. 50 CFU (Productivity)/ 10⁴-10⁶ (Selectivity).

Dilute to normal concentration

Aerobiosis. Incubation at 37 °C±1, reading after 24-48±2h

Microorganism

Escherichia coli ATCC® 25922, WDCM 00013

Escherichia coli ATCC® 8739, WDCM 00012

Citrobacter freundii ATCC® 43864, WDCM 00006

Enterococcus faecalis ATCC® 19433, WDCM 00009

Growth

Good - Gas Positive

Good - Gas Positive

Good - Gas Positive

Inhibited - poor

Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

Bibliography

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