

TM 2193 - M-LAURYL SULPHATE AGAR

INTENDED USE

For enumeration of *Escherichia coli* and coliforms in water, using membrane filter technique.

PRODUCT SUMMARY AND EXPLANATION

Burman substituted bile salts with teepol in Membrane Enriched Teepol Broth, the membrane filtration test medium used to detect coliform organisms in water. M-Lauryl Sulphate Agar is prepared by substituting teepol with sodium lauryl sulphate.

The water samples are filtered through sterile membrane filter and then placed face upward on agar plates contains M-Lauryl Sulphate Agar. Burman recommended the following incubation temperatures and durations.

Unchlorinated waters:

Coliform organisms :4 hours at 30°C followed by 14 hours at 35°C

Escherichia coli: 4 hours at 30°C followed by 14 hours at 44°C

Non-chlorinated organisms benefit from 4 hours' incubation at 30°C but chlorinated organisms require 6 hours incubation at 25°C. After incubation, yellow colonies are formed which should be confirmed further.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	39.000
Yeast extract	6.000
Lactose	30.000
Sodium lauryl sulphate	1.000
Phenol red	0.200
Agar	15.000

PRINCIPLE

Peptic digest of animal tissue and yeast extract act as a source of nitrogen, carbon and amino acids. Lactose is the source of fermentable carbohydrate. Phenol red serves as an indicator. Sodium lauryl sulphate inhibits gram positive bacteria.

INSTRUCTION FOR USE

- Dissolve 91.2 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Light yellow to pink homogeneous free flowing powder.
- Appearance of prepared medium** : Red coloured clear to slightly opalescent gel forms in Petri plates.
- pH (at 25°C)** : 7.4±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth at 35-37°C	Growth at 44°C	Recovery 35-37°C	Recovery at 44°C	Colour of Colony on Membrane	Incubation Period
<i>Enterobacter aerogenes</i>	13048	50-100	Luxuriant	Inhibited	≥70%	0%	yellow	24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	Luxuriant	≥70%	≥70%	yellow	24 Hours
<i>Bacillus subtilis</i>	6633	≥10 ³	Inhibited	Inhibited	0%	0%	-	24 Hours
<i>Staphylococcus aureus</i>	25923	≥10 ³	Inhibited	Inhibited	0%	0%	-	24 Hours
<i>Enterococcus faecalis</i>	29212	≥10 ³	Inhibited	Inhibited	0%	0%	-	24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.







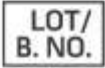


DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- Burman N.P., 1967, Proc. Soc. Wat. Treat. Exam., 16:40.
- Burman N.P., 1967, Rec. Adv. in Bacteriological Examination of waters; C.H. Collins (Ed.), Butterworth, London.



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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