

TM 2219 - M-T 7 Agar

INTENDED USE

Recommended for growth and recovery of injured *E. coli* and total coliforms from water samples by membrane filtration.

PRODUCT SUMMARY AND EXPLANATION

MT7 Agar is recommended by APHA for water testing to detect *Escherichia coli* and total coliforms from water by membrane filtration technique.

COMPOSITION

Ingredients	Gms / Ltr		
Proteose peptone	5.000		
Yeast extract	3.000		
Lactose	20.00		
Tergitol 7	0.400		
Polyoxyethylene ether	5.000		
Bromothymol blue	0.100		
Bromocresol purple	0.100		
Agar	15.000		

PRINCIPLE

Proteose peptone and yeast extract supplies nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients to the organisms. Lactose is the fermentable carbohydrate. Bromothymol blue and Bromocresol purple are the pH indicators. Lactose fermenting colonies turn yellow while lactose non-fermenters turn blue to purple. Tergitol 7 and Polyoxyethylene ether inhibits gram-positive organisms.

INSTRUCTION FOR USE

- Dissolve 48.60 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

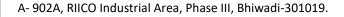
Appearance of Powder	: Light yellow to greyish purple homogeneous free flowing powder
Appearance of prepared medium	: Greyish purple clear to slightly opalescent gel forms in Petri plates
pH (at 25°C)	: 7.4±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism ATCC Inoculum (CFU/mI) Growth Recovery Colour of Colour of Colony (membrane) Incubation Temperature Period
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Escherichia coli	25922	50-100	good- luxuriant	>=50 %	yellow	35-37°C	18-24 Hours
Klebsiella aerogenes	13048	50-100	good- luxuriant	>=50 %	yellow	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	good- luxuriant	>=50 %	yellow	35-37°C	18-24 Hours
<i>Salmonella</i> Enteritidis	13076	50-100	good- luxuriant	>=50 %	blue to purple	35-37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	25923	>=10 ⁴	inhibited	0%	-	35-37°C	18-24 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.

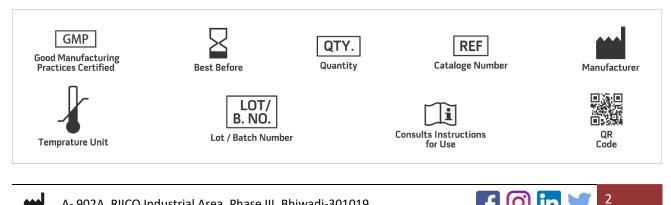
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

- 1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
- 2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.



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A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.

PRODUCT DATA SHEET



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only Revision: 08 Nov., 2019

