

TM 441 – TERGITOL - H - 7 BROTH

INTENDED USE

A selective and differential medium for detection and enumeration of coliforms.

PRODUCT SUMMARY AND EXPLANATION

Tergitol-7 Broth was originally designed by Chapman and later on modified by incorporating 2,3,5-Triphenyl Tetrazolium Chloride (TTC) into the medium. This medium is selective and differential which is used for the detection and enumeration of coliform organisms. Pollard has reported the selective bactericidal property of sodium heptadecyl sulphate (Tergitol-7). Kulp et al corroborated the use of Tergitol-7 medium with TTC in routine analysis of water and Mossel used this medium for the examination of food materials.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	5.000
Yeast extract	3.000
Lactose	10.000
Sodium heptadecyl sulphate(Tergitol-7)	0.100
Bromo thymol blue	0.025

PRINCIPLE

Sodium heptadecyl sulphate (Tergitol-7) inhibits gram-positive bacteria and Proteus swarming and yields better recovery of coliforms. Bromo thymol blue is the pH indicator. Lactose fermenting organisms form yellow coloured medium while Klebsiella and Enterobacter form greenish yellow coloured medium. Lactose non-fermenters produce blue coloured medium. TTC is reduced in the bacterial cell to form formazan, a red coloured insoluble complex, thereby producing red coloured medium.

INSTRUCTION FOR USE

- Dissolve 18.13 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Aseptically add 3 ml of Triphenyl Tetrazolium Chloride (TTC) Solution, if desired.
- Mix well and dispense into sterile tubes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to light green homogeneous free flowing powder.
Appearance of prepared medium	: Green coloured clear to slightly opalescent solution in tubes.
pH (at 25°C)	: 6.9±0.2

INTERPRETATION

Cultural characteristics observed after incubation if desired with added TTC Solution 1%.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Luxuriant	Yellow	35-37°C	18-48 Hours
<i>Enterobacter aerogenes</i>	13048	50-100	Luxuriant	Yellow	35-37°C	18-48 Hours
<i>Proteus vulgaris</i>	13315	50-100	Good	Blue-green	35-37°C	18-48 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good	Blue-green	35-37°C	18-48 Hours
<i>Salmonella Typhimurium</i>	14028	50-100	Luxuriant	Blue-green	35-37°C	18-48 Hours
<i>Shigella flexneri</i>	12022	50-100	Luxuriant	Blue-green	35-37°C	18-48 Hours
<i>Staphylococcus aureus</i>	25923	$\geq 10^3$	Inhibited	-	35-37°C	18-48 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. Chapman G.H., 1947, J. Bact., 53:504.
2. Pollard A.L., 1946, Science, 103:758.
3. Kulp W., Mascoli C. and Tavshanjian O., 1953, Am. J. Public Health, 43:1111.
4. Mossel D.A.A., 1962, J. Appl. Bact., 25:20.



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Cataloge Number	 Manufacturer
 Temprature Unit	 EC REP Authorized Representative <small>MedNet GmbH Berkstrasse 10 48163 Muenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

***For Lab Use Only**
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