

TM 2200 - M-STANDARD METHODS BROTH

INTENDED USE

For enumeration of bacteria in milk and other samples of sanitary importance in dairy industries by membrane filter technique.

PRODUCT SUMMARY AND EXPLANATION

The dairy industry has relied for safety on control of the manufacturing process and on the use of tests such as the standard plate count and coliform count as indicators of post process contamination. Testing of dairy products or dairy plant environment samples for pathogens has not been routinely performed. However, there is a need for at least surveillance testing of product and environmental samples as well as for re-evaluation of processing and environmental control procedures. Evaluation of this may require that product and environmental samples be analyzed for pathogens. M-Standard Methods Broth also called as M-Tryptone Glucose Yeast Broth is used as non-selective general purpose media recommended by APHA for determination of bacterial counts in dairy products and water, foods and other specimens respectively.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	10.000
Yeast extract	5.000
Dextrose	2.000

PRINCIPLE

M-Standard Methods Broth has similar composition as Plate Count Agar except agar and other ingredients are in double quantity. Casein enzymic hydrolysate and yeast extract provide the essential nutrients like amino acids, minerals and trace growth factors. Dextrose serves as the carbon source. About 2 ml of the broth medium is used to saturate sterile absorbent pads. Filters used for membrane filtration are then aseptically placed on these absorbent pads.

INSTRUCTION FOR USE

- Dissolve 17 grams in 1000 ml distilled water.
- Heat if necessary with frequent agitation to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder
Appearance of prepared medium	: Light amber coloured clear solution without any precipitate
pH (at 25°C)	: 7.0±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period



<i>Escherichia coli</i>	25922	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
<i>Salmonella Typhi</i>	6539	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
<i>Streptococcus pyogenes</i>	19615	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
<i>Staphylococcus epidermidis</i>	12228	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	luxuriant	>=70 %	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. American Public Health Association, 1960, Standard Methods for the Examination of Water and Wastewater, 11th ed., APHA, New York.
2. Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.), 1985, Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA, Washington, D.C.
3. Speck M. (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd ed., APHA, Washington, D.C.
4. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.



 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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