TM 2188 - M-(HPC) HETEROTROPHIC PLATE COUNT AGAR BASE

INTENDED USE

For enumeration of heterotrophic microorganisms from water samples using membrane filter technique.

PRODUCT SUMMARY AND EXPLANATION

Heterotrophs are organisms including bacteria, yeasts and molds that require an external source of organic carbon for growth. The heterotrophic plate count (HPC), formerly known as the standard plate count, is a procedure for estimating the number of live heterotrophic bacteria in water and measuring changes during water treatment and distribution or in swimming pools. Heterotrophic Plate Count Method has been applied in many variants and is widely used to measure the heterotrophic microorganism population in drinking water and other media. M-(HPC) Heterotrophic Plate Count Agar Base with added glycerol is recommended for the detection of heterotrophic organisms of potable water, swimming pool and other waters. Three different methods are described for determining the heterotrophic plate count i.e. pour plate method, spread plate method and membrane filter method. M-(HPC) Heterotrophic Plate Count Agar Base is employed for use in the membrane filtration technique. M-(HPC) Heterotrophic Plate Count Broth Base can also be employed for the determination of Heterotrophic Plate Count by the membrane filter method. Sterile cotton absorbent pads are saturated with the broth medium. Membrane filters are then placed on these saturated cotton absorbent pads or agar surface and incubated.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	20.000
Gelatin	25.000
Agar	15.000

PRINCIPLE

Peptic digest of animal tissue is the source of nutrients for organisms, which are not highly fastidious. Gelatin is utilized by microorganisms through a proteolytic mechanism. The addition of glycerol to the basal medium provides a source of carbon and energy.

INSTRUCTION FOR USE

- Dissolve 60.0 grams in 1000 ml distilled water containing 10 ml glycerol.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 5 minutes.
- Mix well and dispense as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder

Appearance of prepared medium : Light yellow coloured clear to slightly opalescent gel forms in Petri plates

pH (at 25°C) : 7.1±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

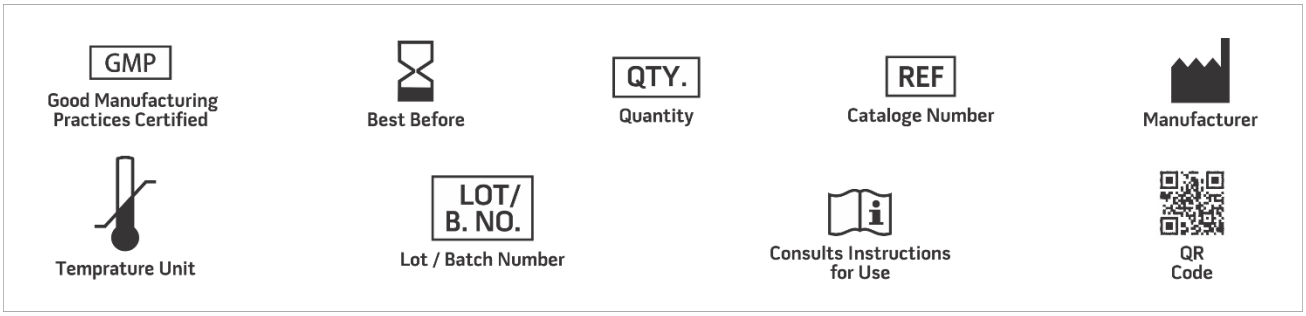
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Escherichia coli	*25922*	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
Enterococcus faecalis	*29212*	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
Pseudomonas aeruginosa	*27853*	50-100	luxuriant	>=70 %	35-37°C	18-24 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. Taylor R. H. and Geldreich E. E., 1979, J. Am. Water works Assoc. 71:402.
2. Eaton A. D., Clesceri L. S. and Greenberg a W., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C.



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