

Tryptone Yeast Extract Medium

MF035/F[▽]

Intended Use:

Recommended for estimation of microbial counts in water.

Directions

The test sample should be filtered through a sterile membrane filter having pore size of 0.22 μ / 0.45 μ . Rehydrate the nutrient pad with 2.0-2.5 ml sterile distilled / purified water. After filtration, remove the membrane filter aseptically using sterile forceps. Place the membrane filter on rehydrated nutrient pad. Incubate the inoculated nutrient. Interpret the results qualitatively by observing the presence or absence of growth and quantitatively by counting the number of colonies on the surface of the membrane filter and calculating CFU/ml.

Principle And Interpretation

DriFilter Membrane Nutrient Pad Medium is ready to use sterile culture media in the form of a 50 mm biological inert absorbent pads impregnated with Sabouraud Dextrose Medium, then dried and sterilized in 55 mm petri plate. They eliminate the need of laborious media preparation and autoclaving procedures. The nutrient pads are to be just rewetted with sterile distilled water and are ready to use. Use of nutrient pads allows larger sample volumes to be tested at a time. Interpretation of results is directly by counting the CFUs and also quantifies the microbial load present in the sample.

Periodic sampling and determination of microbial counts of water used for recreation such as beaches etc, open natural/ man made reservoir is important. The total count might be indicative of the overall sanitary conditions at that site (2). Tryptone Yeast Extract Agar is formulated as described by ISO Committee (3) for the enumeration of viable microorganisms in water under the specification ISO 6222:1988.

Tryptone and yeast extract provide nitrogenous compounds, vitamin B complex and other essential growth nutrients. Total colony forming units (CFU) from the water samples to be tested is obtained either by spread plate or by pour plate technique.

Type of specimen

Water samples

Specimen Collection and Handling:

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(1) After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1.This medium is general purpose medium and may not support the growth of fastidious organisms.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Dry filter membrane pad of 50mm diameter

Colour

Light Ambered coloured nutrient pad

Sterility test

Passes release criteria

Cultural Response

Cultural characteristics observed after incubation at 28-32° C upto 4 days.

Organism	Inoculum (CFU)	Growth	Color of colony
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	luxuriant	Colourless
<i>Staphylococcus aureus</i> ATCC 25923 (00034*)	50-100	luxuriant	Colourless
<i>Streptomyces lavendulae</i> ATCC 8664	50-100	luxuriant	Colourless
<i>Streptomyces albus subsp albus</i> ATCC 3004	50-100	luxuriant	Colourless

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

On receipt store between 10-30°C. Use before expiry date on the label.

Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

Reference

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. Corry J. E. L., Curtis G. D. W., and Baird R. M., Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam
3. International Organization for Standardization (ISO), 1988, Draft ISO/DIS 6222.
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
5. 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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Note:

MF000 - Sterile pad packed individually in sterile Petri plate without Membrane Filter

MF000F[▽] - Sterile pad packed individually in sterile Petri plate with sterile Membrane Filter (0.45 mm).

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.