

**YEAST EXTRACT AGAR****TM 496**

For plate count of microorganisms in water

Composition

Ingredients	Gms/Ltr.
Agar	15.00
Peptic digest of animal tissue	5.00
Yeast extract	3.00

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 23.00gms in 1000ml of distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving for 15 psi (at 121°C) for 15 min. Cool to 40 - 45°C, mix well and pour into sterile petri plates.

Appearance: Light yellow colour, opalescent

pH (at 25°C): 7.2 ± 0.2

Principle

YEAST EXTRACT AGAR is used for plate count of microorganisms in water. Yeast Extract and Peptic digest of animal tissue provide sources of nitrogen, amino acids, essential vitamins, and carbon required for organism growth. Agar is the solidifying agent. In nature, all water contains some impurities. As we know that microbial pathogens are often found in water frequently as a result of fecal matter from sewage discharges, leaking septic tanks, or runoff from animal feedlots. As water flows in streams, sits in lakes, and filters through layers of soil and rock in the ground, it dissolves or absorbs the substances that it touches. The combination of media ingredients and the appropriate incubation temperature of 35 ± 2°C and allow the detection of a large number of microbial contaminants. Incubation period can extend up to 7 days also at 22 ± 2°C aerobically.

Interpretation

Cultural characteristics observed after incubation at 35 ± 2°C for 18 - 24 hours.

Microorganisms	ATCC	Inoculum (CFU)	Growth
<i>Escherichia coli</i>	25922	10 ³	Luxuriant
<i>Enterobacter aerogenes</i>	13048	10 ³	Luxuriant
<i>Staphylococcus aureus</i>	25923	10 ³	Luxuriant
<i>Pseudomonas aeruginosa</i>	27853	10 ³	Luxuriant



PRODUCT DATA SHEET

<i>Candida albicans</i>	10131	10 ³	Inhibited
<i>Aspergillus brasiliensis</i>	16404	Point inoculation	Inhibited

References

1. Taylor W. E., The examination of Waters and Water Suppliers, 7th ed., Churchill Ltd., London, pg 394, 778. (1958).
2. International Organization for Standardization: Water Quality - Enumeration of culturable microorganisms - Colony count by inoculation in a nutrient agar culture medium. International Standard IS) 6222. (1999).