



## Emerson Agar

M325

Emerson Agar is used for isolation and cultivation of *Actinomycetaceae* , *Streptomycetaceae* , fungi and moulds.

### Composition\*\*

Ingredients	Gms / Litre
Beef extract	4.000
Yeast extract	1.000
Peptic digest of animal tissue	4.000
Dextrose	10.000
Sodium chloride	2.500
Agar	20.000
Final pH ( at 25°C)	7.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 41.5 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Add 0.05 grams / litre cycloheximide, if desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

Emerson Agar was originally formulated by Emerson et al (1) and is used for the cultivation of moulds and bacterial species resembling moulds (3). This medium was further modified by Gottlieb et al (2) and is used for screening potent antibiotic-producing organisms (4). In their study, they stored *Streptomyces* in soil for long time and transferred them as needed, to slants of Emerson Agar. The slant cultures were incubated for 3-7 days. The spores were gently scraped from the cultures surface to form a spore inoculum.

Yeast extract provides a source of trace elements, vitamins and amino acids. For the selective isolation of *Streptomyces* species, cycloheximide is incorporated in the medium, which limits the growth of moulds. This medium is also used for routine cultivation and maintenance of pure cultures.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 2.0% agar gel.

#### Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 4.15% w/v aqueous solution at 25°C. pH : 7.0±0.2

#### pH

6.80-7.20

#### Cultural Response

Organism	Growth
* <i>Aspergillus brasiliensis</i> ATCC 16404	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	luxuriant
<i>Streptomyces albus subsp</i> <i>albus</i> ATCC 3004	luxuriant

*Streptomyces lavendulae* luxuriant  
ATCC 8664  
*Streptomyces achromogenes* luxuriant  
ATCC 12767

\*Key: Formerly known as *Aspergillus niger*

## Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

## Reference

1. Emerson R. L., Whiffen A. J., Bohonos M. and DeBoer C., 1946, J. Bacteriol., 52:357.
2. Gottlieb D., Bhattacharya P. K., Anderson H. W. and Carter H. E., 1948, J. Bacteriol., 55:409.
3. Haynes W. C., Wickerham L. J. and Hesseltine C. W., 1955, Appl. Microbiol., 3:361.
4. Schmitz H. and Woodside R., 1955, Antibiot. Chemother., 5:652.

Revision : 1 / 2011



### 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.