

## Technical Information

### Yeast Extract Agar

**Product Code: DM 1456**

**Application:** Yeast Extract Agar is a highly nutritive medium recommended for plate count of microorganisms in water.

### Composition\*\*

| Ingredients                    | Gms / Litre |
|--------------------------------|-------------|
| Peptic digest of animal tissue | 5.000       |
| Yeast extract                  | 3.000       |
| Agar                           | 15.000      |
| Final pH ( at 25°C)            | 7.2±0.2     |

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

### Principle & Interpretation

Yeast Extract Agar is formulated as per the formula described by Windle Taylor <sup>(1)</sup> for the plate count of microorganisms in water. Water can contain a large number of microorganisms, particularly coming from the earth and vegetation.

Yeast extract and peptic digest of animal tissue provide nitrogenous compounds, vitamin B complex and other growth nutrients. From the water sample, make a tented dilution with Ringer Solution (DM1525) and take aliquots of these dilutions to 2 parallel series of plates. Pour the molten, cooled (45°C) Yeast Extract Agar and homogenize with sample. Incubate one of the series of plates at 35°C for 24 hours and the other series of plates at 20-22°C for 3 days. Separate counts are made of the organisms forming visible colonies after 24 hours at 35°C and the organisms forming colonies after 3 days at 20-22°C <sup>(2)</sup>. Select the plates containing 30-300 colonies.

### Methodology

Suspend 23 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

### Quality Control

#### Physical Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel.

#### Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates.

#### Reaction

Reaction of 2.3% w/v aqueous solution at 25°C. pH : 7.2±0.2

#### pH Range:-

7.00-7.40

#### Cultural Response/Characteristics

**DM1456:** Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

| Organism                                 | Inoculum(CFU) | Growth    | Recovery |
|--|---------------|-----------|----------|
| <i>Enterobacter aerogenes</i> ATCC 13048 | 50-100        | luxuriant | ≥70%     |
| <i>Escherichia coli</i> ATCC 25922       | 50-100        | luxuriant | ≥70%     |
| <i>Pseudomonas aeruginosa</i> ATCC 27853 | 50-100        | luxuriant | ≥70%     |
| <i>Staphylococcus aureus</i> ATCC 25923  | 50-100        | luxuriant | ≥70%     |



Dehydrated Culture Media  
Bases / Media Supplements

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.

## Further Reading

1. Taylor W. E., 1958, The Examination of Waters and Water Supplies, 7th Ed., Churchill Ltd, London, pg. 394, 778. 2. Dept. of Health and Social Security, 1982, report No.71: HMSO, London, 54.

## Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
- **Central Drug House 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 diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- 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. Do not use the products if it fails to meet specifications for identity and performance parameters.

