

## **Technical Information**

### Standard Methods MiVeg Agar w/ Tween 80 and Lecithin

### Product Code: VM1302

**Application:**- Standard Methods MiVeg Agar with Tween 80 and Lecthin is used for examination of sanitary quality of surfaces.

### Composition

Ingredients	Gms / Litre	
MiVeg hydrolysate	5.0	
Yeast extract	2.5	
Dextrose	1.0	
Lecithin	0.7	
Polysorbate 80 (Tween 80)	5.0	
Agar	15.0	
Final pH (at 25°C)	7.0 ± 0.2	
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<sup>\*\*</sup> Formula adjusted, standardized to suit performance parameters.

### Principle & Interpretation

Standard Methods MiVeg Agar with Tween 80 and Lecthin is prepared by adding MiVeg hydrolysate in place of Casein enzymic hydrolysate thereby making the medium BSE/TSE risks free. This medium is the modification of Standard Methods MiVeg Agar with Tween 80 and Lecthin which is formulated as recommended by APHA (1) for the enumeration of microorganisms from flat and nonporous surfaces. For the intended purpose the plates of this medium should be prepared carefully to ensure the presence of meniscus of agar extending above the top of the poured plate. MiVeg hydrolysate and yeast extract provides amino acids and vitamin B complex to the growing organisms. Dextrose serves as an energy source. Polysorbate 80 and lecithin act as neutralizing agents that inactivates the residual disinfectants if any, in the collected samples (2,3). Lecithin inactivates quaternary ammonium compounds whereas polysorbate 80 neutralizes formalin, phenolic disinfectants, hexachlorophene etc.

### Methodology

Suspend 29.2 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

# **Quality Control**

#### Physical Appearance

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

#### Gelling

Firm, comparable with 1.5% Agar gel.

#### Colour and Clarity of prepared medium

Light yellow coloured, slightly opalescent gel forms in petri plates.

#### Reaction

Reaction of 2.92% w/v aqueous solution is pH 7.0  $\pm$  0.2 at 25°C.

#### pH Range

6.8-7.2





#### Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Escherichia coli (25922)	102-103	luxuriant	>70%
Staphylococcus aureus (25923)	102-103	luxuriant	>70%

## 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 day.

# **Further Reading**

- 1. Richardson (Ed.) Standard Methods for the Examination of Dairy Products. 15<sup>th</sup> Edition, 1985, APHA, Washington, D.C.
- 2. Erlandson and Lawrence, 1953, Science, 118:274.
- 3. Brummer, 1976, Appl. Environ. Microbiol., 32:80.

### **Disclaimer:**

- User must ensure suitability of the product(s) in their application prior to use.
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