

# **Technical Information**

### **AATCC Bacteriostasis MiVeg Agar**

### **Product Code: VM1231**

Application:- AATCC Bacteriostasis MiVeg Agar is used for the detection of antibacterial activity of fabrics.

### Composition

Ingredients	Gms / Litre
MiVeg peptone	10.00
MiVeg extract	5.00
Sodium chloride	5.00
Agar	15.00
Final pH (at 25°C)	$7.2 \pm 0.2$

<sup>\*\*</sup> Formula adjusted, standardized to suit performance parameters.

### Principle & Interpretation

AATCC Bacteriostasis MiVeg Agar is the modifications of AATCC Bacteriostasis Agar in which the animal based peptones is replaced by vegetable peptones which makes the media BSE/TSE risk free. AATCC Bacteriostasis MiVeg Agar is used in accordance with the standard procedure (1, 2, 3). AATCC Bacteriostasis MiVeg Agar may be used to carry stock cultures of Escherichia coli and Staphylococcus aureus. Also, it is used for the detection of antibacterial activity of fabrics. AATCC Bacteriostasis MiVeg Agar like the conventional media serves the same above mentioned purposes.

The test cultures of *Escherichia coli* and *Staphylococcus aureus* are grown in AATCC Bacteriostasis MiVeg Broth for 24 hours. 1 ml of this culture is mixed with 150 ml of AATCC Bacteriostasis MiVeg Broth (VM1221) and poured into the plate. After the agar solidifies, apply a circular sterile test fabric of 28.6 mm diameter onto the plate. Incubate at 35-37°C for 18 - 24 hours and observe the inhibition of growth around test fabric.

MiVeg peptone and MiVeg extract provides nitrogenous nutrients and sodium chloride maintains the osmotic balance of the medium.

### Methodology

Suspend 35 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### **Quality Control**

#### Physical Appearance

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

Amber coloured, clear to slightly opalescent gel forms in petri plates.

#### Reaction

Reaction of 3.5% w/v aqueous solution pH: 7.2±0.2 at 25°C

#### pH range

7.00-7.40

#### CulturalResponse/Characteristics

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





<b>Organisms (ATCC)</b> Escherichia coli (25922)	Inoculum (CFU) 10 <sup>2</sup>	<b>Growth</b> luxuriant	Recovery >70%
Staphylococcus aureus (6538)	10 <sup>2</sup>	luxuriant	>70%
Pseudomonas aeruginosa (27853)	102	luxuriant	>70%
Salmonella serotype Typhi (6539)	102	luxuriant	>70%

Lack of bacterial growth indicates that the fabric has antibacterial activity.

# 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:** 2-80 in sealable plastic bags for 2-5 days.

## **Further Reading**

- 1. Williams (Ed.), 2005, Official methods of Analysis of AOAC, 18<sup>th</sup> ed. AOAC, Washington D.C.
- 2. Tech. Manual of AATCC, 1985, Vol. 61, AATCC, Research Triangle Park, N.C.
- 3. Ruuhle and Brewer, 1931, USFDA Methods of Testing Antiseptics and Disinfectants, USDA Circ.:198.

### 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
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