

## Technical Information

### Wort MiVeg Agar

**Product Code : VM1129**

**Application:-** Wort MiVeg Agar is used for the cultivation and enumeration of yeasts.

### Composition\*\*

Ingredients	Gms / Litre
Malt extract	15.00
MiVeg peptone	0.78
Maltose	12.75
Dextrin	2.75
Dipotassium phosphate	1.00
Ammonium chloride	1.00
Agar	15.00
Final pH (at 25°C)	4.8 ± 0.2

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

### Principle & Interpretation

Wort MiVeg Agar is prepared by adding MiVeg peptone in place of Peptic digest of animal tissue thereby making the medium BSE/TSE risks free. Wort MiVeg Agar is the modification of Wort Agar which was formulated as described by Parfitt (1) for the cultivation and enumeration of fungi especially yeasts in syrups and butter. Yeast grows well in culture media containing dextrose or maltose in acidic environment.

MiVeg peptone and malt extract supplies nitrogenous compound and certain other essential growth nutrients. Dextrin and maltose are fermentable carbohydrates. Glycerol serve as an energy source and promotes growth of yeasts. Acidic pH of the medium inhibits many bacteria. Avoid reliquification of the agar medium as it may cause alteration in the medium due to hydrolysis of agar at low pH and results in failure to become gel, on cooling (2).

**Techniques:** For the microbiological examination of butter, make appropriate dilutions in quarter strength Ringer solution. Transfer 1 ml of each dilution to a separate petriplate, then add about 15 ml of melted Wort MiVeg Agar, cooled to 45°C. Mix well by gently rotating the plates for even distribution. Allow the plates to set at room temperature for 30–50 minutes. Incubate at 25°C for upto 5 days. Count the number of yeast and mould colonies.

For the examination of sugar products for osmophilic yeasts, dissolve Wort MiVeg Agar in a syrup containing 35 parts w/w of sucrose and 10 parts w/w of glucose. Sterilize by autoclaving at 110°C for 20 minutes. Inoculate and mix well. Incubation to be carried out at 27°C for 3-4 days for *Schizosaccharomyces* species and for 5 days for less osmophilic yeasts.

### Methodology

Suspend 48.3 grams of powder media in 1000 ml distilled water containing 2.35 grams of glycerol. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C. Shake and pour into sterile petri plates.

### 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

Yellow coloured, opalescent gel forms in petri plates.

## Reaction

Reaction of 4.83% w/v aqueous solution is pH 4.8  $\pm$  0.2 at 25°C.

## pH Range

4.6-5.0

## Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 30°C for for 40-48 hours.

## Organisms (ATCC)

*Aspergillus niger* (16404)

*Saccharomyces cerevisiae* (9763)

*Saccharomyces uvarum* (9080)

*Candida albicans* (10231)

## Growth

Luxuriant

Luxuriant

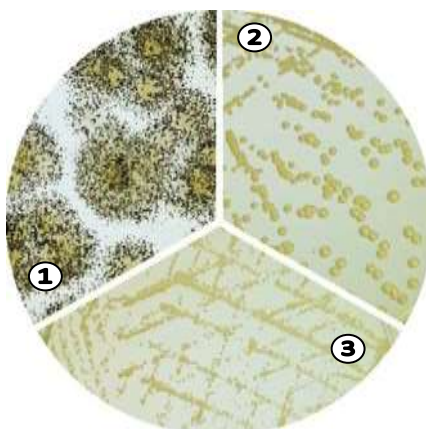
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## Storage and Shelf Life

**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.



## VM1129 Wort MiVeg Agar

1. *Aspergillus niger*

2. *Candida albicans*

3. *Saccharomyces cerevisiae*

## Further Reading

1. Parfitt, 1933., J. Dairy Sci., 19 : 141.

2. Macfaddin J. 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1. Williams and Wilkins, Baltimore.

## Disclaimer :

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