# Technical Information

## Milk MiVeg Agar

## Product Code : VM1163

**Application:-** Milk MiVeg Agar is used for enumeration of bacteria in milk and milk products, rinse waters, ice creams

## Composition

| Ingredients | Gms / Litre |
|---|---|
| MiVeg peptone | 5.0 |
| Yeast extract | 3.0 |
| Milk solids | 1.0 |
| Agar | 15.0 |
| Final pH ( at 25°C) | 7.2±0.2 |

** Formula adjusted, standardized to suit performance parameters.

## Principle & Interpretation

Milk MiVeg Agar is prepared by using vegetable peptones in place of animal based peptones which makes the medium BSE/TSE risks free. This medium is the modification of Milk Agar formulated as per the official medium described by Dept. of Health Memo (1).

To test milk samples, dilutions of 1/10, 1/100 and 1/1000 are prepared with 1/4 strength Ringer solution. 1 ml of each is pipetted aseptically into sterile petri plates and 10 ml of sterile medium is added to it and mixed well. Plates should be poured within 15 minutes of dilution preparation. After solidification of medium allow the plates to stand for 1 hour before transferring to the incubator. Incubate for 2 days at 35°C or 3 days at 30°C. Higher counts may be obtained after incubation at 22°C and 30°C than at 35°C (2, 3, 4). Count the colonies within 4 hours after the incubation and read it as per ml of sample.

## Methodology

Suspend 24 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**

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 2.4 % w/v aqueous solution pH: 7.2 ±0.2 at 25°C

**pH range**

7.0-7.4

**Cultural Response/Characteristics**

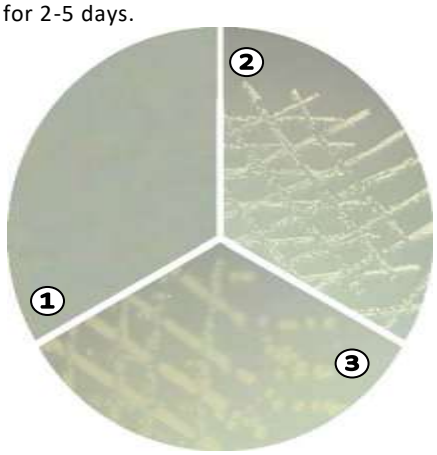
Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours

| Organisms (ATCC) | Inoculum (CFU) | Growth | Recovery |
|---|---|---|---|
| *Bacillus subtilis* (6633) | 30-300 | good-luxuriant | >70% |
| *Lactobacillus casei* (9595) | 30-300 | good-luxuriant | >70% |
| *Pseudomonas aeruginosa* (27853) | 30-300 | good-luxuriant | >70% |

| | | | |
|---|---|---|---|
| *Serratia marcescens* (8100) | 30-300 | good-luxuriant | >70% |
| *Staphylococcus aureus* (25923) | 30-300 | good-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$^0$ in sealable plastic bags for 2-5 days.




**VM1163 Milk MiVeg Agar**
(Against dark background)
1. Control
2. *Staphylococcus aureus*
3. *Pseudomonas aeruginosa*

## Further Reading

1. Dept. of Health, 1987, Memo. 139/Foods.
2. Davis J.G., 1959, 'Milk Testing', 2nd ed., Dairy Industries Ltd., London, Pg. 175.
3. Thomas S.B. and Jenkins E., 1940, Proc. Soc. Appl. Agric., 38:40.
4. Wilson G.S., 1935, 'Bacteriological Grading of Milk, HMSO, London.

## 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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