

## Technical Information

### Eugonic MiVeg Agar

#### Product Code : VM1428

**Application:-** Eugonic MiVeg Agar is recommended for the cultivation of fastidious microorganisms like *Haemophilus*, *Neisseria*, *Brucella*, *Pasteurella* and *Lactobacillus* species.

#### Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	15.00
Papaic digest of soyabean meal	5.00
Dextrose	5.00
Sodium chloride	4.00
Sodium sulphite	0.20
L-Cystine	0.20
Agar	15.00
Final pH (at 25°C)	7.0 ± 0.2

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

#### Principle & Interpretation

Eugonic MiVeg Agar is prepared by adding MiVeg hydrolysate in place of Casein enzymic hydrolysate thus making the medium free from BSE/TSE risks. Eugonic MiVeg Agar is the modification of media formulated by Vera (1) to obtain Eugonic (luxuriant) growth of fastidious microorganisms like *Brucella* which are otherwise difficult to cultivate. Pelczar and Vera (2) used the conventional media for enumeration of bacteria in milk and milk products and Niven (3) for the detection of lactic acid in cured meats. Eugonic MiVeg Agar like Eugonic Agar can be used for bacterial counts in frozen meat, poultry microbiology (4, 5). It can be used with or without enrichments.

MiVeg hydrolysate, Papaic digest of soyabean meal provides the nitrogen source, vitamins and amino acids. Dextrose is the energy source for rapid growth of bacteria. L-Cystine and sodium sulfite are added to stimulate growth and sodium chloride maintains the osmotic balance of the media.

#### Methodology

Suspend 44.4 grams of powder media in 1000ml distilled water. Mix thoroughly. Boil with frequent stirring to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C and add 5 -10% v/v sterile defibrinated blood if desired. The blood may be chocolate by heating, if chocolate agar plates are required.

#### 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, clear to slightly opalescent gel forms in petri plates.

##### Reaction

Reaction of 4.44% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

## pH Range

6.8-7.2

## Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery**
* <i>Streptococcus pneumoniae</i> (6303) 10	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>70%
* <i>Streptococcus pyogenes</i> (19615)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>70%
* <i>Brucella abortus</i> (4315)	10 <sup>2</sup> -10 <sup>3</sup>	good	>50%
<i>Neisseria meningitidis</i> (13090)	10 <sup>2</sup> -10 <sup>3</sup>	good	>50%
<i>Lactobacillus fermentum</i> (9338)	10 <sup>2</sup> -10 <sup>3</sup>	good	>50%
<i>Candida albicans</i> (26790)	10 <sup>2</sup> -10 <sup>3</sup>	good	>50%
<i>Bacillus pumilus</i> (14884)	10 <sup>2</sup> -10 <sup>3</sup>	good (with 0.1% starch)	>50%

Key : \* = under 10% CO<sub>2</sub>

\*\*= on VM 1428

## 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. Vera, 1947, J. Bact., 54:14.
2. Pelczar and Vera, 1949, Milk Plant Monthly, 38:30.
3. Niven 1949, J. Bacteriol. 58 :633
4. Harrison and Hansen, 1950, J. Bact., 59:197.
5. Frank, 1955, J. Bact., 70:269.

## 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.