# Technical Information

## Brilliant Green MiVeg Broth 2%

## Product Code : VM1121

**Application:-** Brilliant Green MiVeg Broth 2% is recommended for the detection and confirmation of coliform bacteria in water, waste water, foods, milk and dairy products.

## Composition

| Ingredients | Gms / Litre |
|---|---|
| MiVeg peptone | 25.0 |
| Lactose | 10.0 |
| Synthetic detergent No. II | 5.0 |
| Brilliant green | 0.0133 |
| Final pH ( at 25°C) | 7.2±0.2 |

** Formula adjusted, standardized to suit performance parameters.

## Principle & Interpretation

Brilliant Green MiVeg Broth 2% is specially prepared using MiVeg peptone instead to animal base peptone to avoid BSE/TSE risks. This medium is the modification of Brilliant Green Bile Broth 2% which is used for presumptive identification and confirmation of coliform bacteria (1,2). It contains Brilliant green and synthetic detergent No. II to inhibit gram-positive bacteria. Incorporation of inverted Durham's tube detects the production of gas from lactose fermentation, which indicates a positive evidence of faecal coliforms since nonfaecal coliforms growing in this medium do not produce gas. During examination of water samples, growth from presumptive positive tubes showing gas in Lactose MiVeg Broth (MV1026) or Lauryl Tryptose MiVeg Broth (MV1080) is inoculated in Brilliant Green MiVeg Broth 2% wherein gas formation within 48 ± 2 hours confirms the presumptive test.

## Methodology

Suspend 40 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat if necessary to boiling to ensure complete solution. Distribute in fermentation tubes containing inverted Durham's tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

## Quality Control

**Physical Appearance**

Greenish yellow coloured, homogeneous, free flowing powder

**Colour and Clarity of prepared medium**

Emerald green coloured, clear solution without anyprecipitate.

**Reaction**

Reaction of 4.0 % w/v aqueous solution pH: 7.2±0.2 at 25°C

**pH range**

7.0-7.4

**Cultural Response/Characteristics**

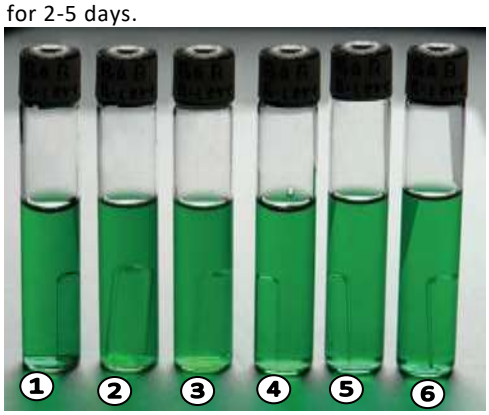
Cultural characteristics observed after an incubation at 35-37°C for 18-48hours

| Organisms (ATCC) | Inoculum (CFU) | Growth | Gas |
|---|---|---|---|
| *Bacillus cereus* (10876) | $10^2$-$10^3$ | inhibited | - |
| *Enterobacter aerogenes* (13048) | $10^2$-$10^3$ | luxuriant | + |

| | | | |
|---|---|---|---|
| *Enterococcus faecalis* (29212) | $10^2$-$10^3$ | None-poor | - |
| *Escherichia coli* (25922) | $10^2$-$10^3$ | luxuriant | + |
| *Staphylococcus aureus* (25923) | $10^2$-$10^3$ | inhibited | - |

## 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.




**VM1121 Brilliant Green MiVeg Broth 2%**

1. Control
2. *Escherichia coli*
3. *Enterobacter aerogenes*
4. *Bacillus cereus*
5. *Enterococcus faecalis*
6. *Staphylococcus aureus*

## Further Reading

1. McCrady and Langerin, 1932, J. Dairy Science, 15:321.
2. McCrady, 1937, Am. J. Publ. Health, 27:1243.

## 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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