Chaitanya Group Of Industries

ReadyMED®
Dehydrated Cell Culture Media

Technical Data Sheet

# Brilliant Green Bile Broth RDM-BGB-01

**Principle**
Brilliant green bile broth (BGB) medium is composed of peptone, which provide ample amount of the carbon, nitrogen, essential and non-essential amino acids, along with the trace minerals. The Bile salts in it inhibit the gram-positive microbes. Lactose is a carbohydrate source. Bacteria that ferment lactose are detected by the gas production trapped inside the Durham's tube. Brilliant Green inhibits gram-positive bacteria and many gram-negative bacteria other than coliforms. Bile broth base used as selective microbial media for enumeration and detection of the enterococcus family members.

**Use**: Recommended for detection and confirmation of coliform bacteria in municipal water, waste water, food, milk and dairy products.

**Contents***

| **Ingredients** | **Gram/Litre** |
|---|---|
| Peptone | 10.000 |
| Bile Salts | 20.000 |
| Lactose | 10.000 |
| Brilliant Green | 0.013 |
| pH at 25˚C | 7.2 ±0.2 |

* Formula adjusted for optimum performance and parameters

**Directions:** Dissolve 40.0 grams in 1000 ml distilled water. Heat to dissolve the medium completely and distribute in fermentation tubes containing inverted Durham's tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. For preparation of double strength, it is recommended to dissolve 80.00 grams per litre in 1000ml distilled water.

**Specimens types analyzed**
*Enterobacteriaceae* suspicious and in culture of blood clots from patients with suspected enteric fever, *etc*.

**Precautions to be taken**
These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

**Performance and Evaluation**
The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

**Quality Control**

| | |
|---|---|
| **Appearance** | Greenish beige colored free flowing, homogeneous powder |
| **Reaction of 4.0% solution** | 7.2 ±0.2 at 25 ˚C |
| **pH** | 7.00- 7.60 |
| **Color and clarity of ready medium** | Emerald green, clear solution |
| **Growth Promotion properties** | Best at ≤ 100 CFU at 32-37 ºC for 18-72 h |
| **Indicative properties** | Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h |
| **Negative control** | Performed using sterile distilled water |

**Different Microbial Response**

| Organism | ATCC | Inoculum | Growth | Gas production | Incubation period |
|---|---|---|---|---|---|
| *Escherichia coli* | 25922 | 50-100 | Luxurious | Positive reaction | 32-37 ºC for 18-48 h |
| *Bacillus subtilis* | 6633 | 50-100 | Inhibited | --- | 32-37 ºC for 18-48 h |

**Storage and Shelf Life**

Hygroscopic; keep container tightly closed. Store in cool dry place.

**Disposal**: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

**Reference**


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2. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
3. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), (2015), *Standard Methods for the Examination of Water and Wastewater*, 23rd Ed., APHA, Washington, D.C.
4. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
5. MacFaddin, (2000), *Biochemical Tests for the Identification of Medical Bacteria*, 3rd Ed., Williams and Wilkins, Baltimore.
6. Rand, M. C., Arnold E. Greenberg, and Michael J. Taras, (1976), *Standard methods for the examination of water and wastewater*. Prepared and published jointly by American Public Health Association, American Water Works Association, and Water Pollution Control Federation.





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