

## TM 678- BRILLIANT GREEN BILE BROTH 2% (IS 5401-2-2012)

### INTENDED USE

For detection and confirmation of coliform bacteria in water and foods.

### PRODUCT SUMMARY AND EXPLANATION

BRILLIANT GREEN BILE BROTH 2% is used for the detection of coliform organisms in foods, dairy products, water and wastewater, as well as in other materials of sanitary importance. It is recommended by BIS committee under the specifications IS: 5401-2-2012.

### COMPOSITION

Ingredients	Gms / Ltr
Oxgall	20.000
Peptic digest animal tissue	10.000
Lactose	10.000
Brilliant green	0.013

### PRINCIPLE

The media contains Peptic digest of animal tissue provides the essential nutrients for growth: nitrogen, vitamins, minerals and amino acids. Brilliant green and oxgall present in the medium inhibit gram-positive bacteria including lactose fermenting Clostridia. Production of gas from lactose fermentation is detected by incorporating inverted Durham's tube and this indicates a positive evidence of faecal coliforms since nonfaecal coliforms growing in this medium do not produce gas.

### INSTRUCTION FOR USE

1. Dissolve 40.00 grams in 1000ml distilled water.
2. Gently heat to boiling with swirling to dissolve the medium completely.
3. Dispense in fermentation tubes containing inverted Durhams tubes.
4. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
5. Cool at room temperature prior to use.

### QUALITY CONTROL SPECIFICATIONS

<b>Appearance of Dehydrated powder</b>	:	Cream to pale green, Homogeneous free flowing powder
<b>Appearance of Prepared medium</b>	:	Emerald green coloured, clear solution without any precipitate
<b>pH (at 25°C)</b>	:	7.2± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Gas production	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Good-	Positive	35-37°C	18-48 Hours.



			Luxuriant	reaction		
<i>Enterobacter aerogenes</i>	13048	50-100	Good-Luxuriant	Positive reaction	35-37°C	18-48 Hours.
<i>Enterococcus faecalis</i>	29212	50-100	None-Poor	Negative reaction	35-37°C	18-48 Hours.
<i>Staphylococcus aureus</i>	25923	≥1000	Inhibited	-	35-37°C	18-48 Hours.

### PACKAGING

In 100 & 500 gm packaging size.

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

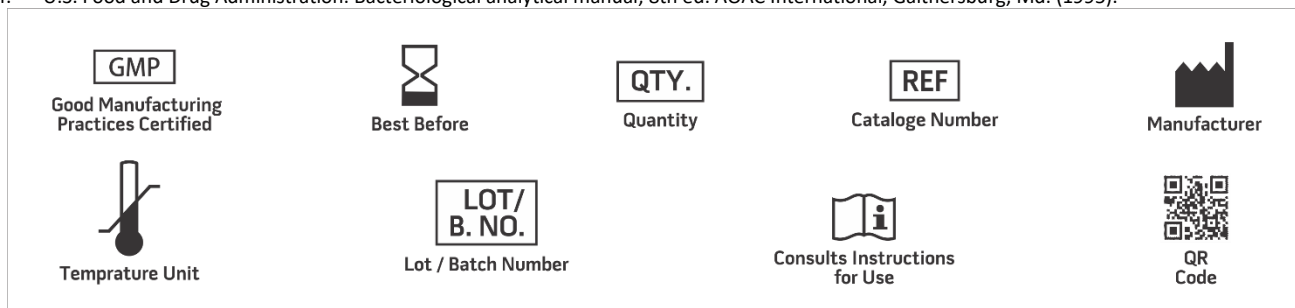
**Product Deterioration:** Do not use powder if they show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

### REFERENCES

1. Wehr and Frank (ed.). Standard methods for the examination of dairy products, 17th ed. American Public Health Association, Washington, D.C. (2004).
2. U.S. Food and Drug Administration. Bacteriological analytical manual, online. AOAC International, Gaithersburg, Md. (2001).
3. Clesceri, Greenberg and Eaton (ed.). Standard methods for the examination of water and wastewater, 20th ed. American Public Health Association, Washington, D.C. (1998).
4. U.S. Food and Drug Administration. Bacteriological analytical manual, 8th ed. AOAC International, Gaithersburg, Md. (1995).



**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
Revision: 05<sup>th</sup>Oct. 2019