BRILLIANT GREEN SELENITE BROTH

CAT Nº: 1221

For the selective enrichment of *Salmonella* species

FORMULA IN g/l

Gelatin Peptone	5.00	Monopotassium Phosphate	1.02
D-Mannitol	5.00	Sodium Taurocholate	1.00
Yeast Extract	5.00	Sodium Sulfapyridine	0.50
Sodium Selenite	4.00	Brilliant Green	0.005
Dipotassium Phosphate	2.65		

Final pH 7.4 ± 0.2 at 25°C

PREPARATION

Suspend 24.2 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Dispense into sterile containers. AVOID OVERHEATING. DO NOT AUTOCLAVE. The prepared medium should be stored at 2-8°C in the dark. It is not recommended to store longer than 8 days. Once prepared, use as soon as possible. The color is green- blue.

The dehydrated medium should be homogeneous, free-flowing and cream with a green tint in color. If there are any physical changes, discard the medium.

Caution: This medium is toxic if swallowed, inhaled or comes into contact with ~~the~~ skin. Wear gloves and eye/face protection.

USES

BRILLIANT GREEN SELENITE BROTH is a selective enrichment for *Salmonella spp*, generally following a pre-enrichment step.

The Gelatin peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. Mannitol is the fermentable carbohydrate providing carbon and energy. Brilliant green, Sodium sulfapyridine and Sodium selenite inhibit Gram-positive bacteria and most Gram-negative bacteria except for *Salmonella spp*. Sodium taurocholate acts as a selective agent inhibiting Gram-positive organisms. The Potassium phosphates act as a buffer system.

After the pre-enrichment of the sample in a suitable medium, pass 10 ml of the sample to Brilliant Green Selenite Broth. Incubate at 35 ± 2°C for 48 hours. After 24 hours subculture to plated media such as Brilliant Green Agar (Cat. 1078), Desoxycholate Citrate Agar (Cat. 1067) and Hektoen Enteric Agar (Cat. 1030) to obtain isolated colonies. Incubate these plates at 35 ± 2°C for 48 hours.

Repeat the subculture to selective plated selective media after 48 hours of incubation of the enrichment broth. Observe the plated media after 24 and 48 hours, noting the appearance and color of colonies on in each medium.

After 24 hours subculture to following plated media to obtain isolated colonies. Incubate these plates at 35 ± 2°C for 48 hours.

	Brilliant Green Agar	Desoxycholate Citrate Agar	Hektoen Enteric Agar
Salmonella	Pink to red with a red halo	Colorless to pale pink at 18 hours. When incubation time increases, they grow larger,	Blue-green. Centers may or not be black

		opaque with gray to black center	
Shigella	Null	Initially colorless, then pale pink	Greenish, moist, convex

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35 ± 2°C and observed after 6 and 24 hours.

Microorganisms	Growth		Concentration of the inoculum
	6 hours	24 hours	
Salmonella typhimurium ATCC 14028	>70%	>95%	approx. 1%
Escherichia coli ATCC 25928	<30%	<5%	approx. 99%

BIBLIOGRAPHY

International standard. ISO 3565. (1975).
Meal and meat products-detection of Salmonella (reference method). ISO 3565 (1975).

STORAGE

Once opened keep powdered medium closed to avoid hydration.