

Product Data Sheet

BRILLIANT GREEN SULPHA AGAR (BG SULPHA AGAR)

Product No. GB-DCM-00061-1A

INTENDED USE

For isolation and detection of Salmonella species from foods.

Product Description

Salmonella species are ubiquitous in the environment. These enter the gastrointestinal tract of animals due to consumption of contaminated feed. Stringent animal husbandry practices are used in the meat (food) industry and inedible raw materials are recycled and discarded. Thus the organisms are further returned to the environment and stay in the global food chain. Eggshell and its contents are usually sterile at the time of oviposition. Subsequently it gets contaminated on contact with the nest, the floor and litter of other birds. Salmonella species are usually the causative agents of a self-limiting gastroenteritis. In some cases they may also cause typhoid fever. Salmonella contamination is most frequently encountered in the poultry industry. Brilliant Green Sulphate Agar is used for the selective isolation and detection of Salmonella species in foods especially from eggs and egg products. Brilliant Green Agar was first formulated by Kristensen, Lester and Jargens. This was further modified by Osborne and Stokes by the addition of 0.1% sodium sulphapyridine to the original formulation. This addition helped to increase the selective properties of the medium. Colonies of Salmonella may sometimes vary from red to pink to white depending upon the time and length of incubation and the strain of Salmonella. Do not autoclave the medium for more than 15 minutes as it decreases the selectivity of the medium.

Product Specifications

Ingredients	Gms / Ltr
Yeast extract	3.000
Proteose peptone	10.000
Lactose	10.000
Sucrose	10.000
Sodium sulphapyridine	1.000
Sodium chloride	5.000
Brilliant green	0.0125
Phenol red	0.080
Agar	20.000

PRINCIPLE

Yeast extract and proteose peptone provide essential growth nutrients, amino acids and vitamins. Brilliant green used in the medium is inhibitory to gram-positive and most gram-negative lactose/sucrose fermenting bacilli. Sulphapyridine enhances the selectivity of the medium. The medium does not support luxuriant growth of *Salmonella Typhi*. *Shigella* species also fail to grow on Brilliant Green Sulpha Agar. Since Brilliant Green Sulpha Agar is highly selective, a less inhibitory medium should be simultaneously used to recover organisms from the pre-enriched culture (Selenite Cystine Medium).

Microorganism	ATCC	Inoculum (CFU)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
<i>Enterococcus faecalis</i>	29212	>=103	Inhibited	0%	-	35-37°C	24-48 Hours
<i>Escherichia coli</i>	25922	50-100	None-poor	0-10%	Yellow green surrounded by intense yellow green zone	35-37°C	24-48 Hours
<i>Proteus vulgaris</i>	13315	>=103	Inhibited	0%	-	35-37°C	24-48 Hours
<i>Salmonella Enteritidis</i>	13076	50-100	Good	40-50%	Pink-white, surrounded by a brilliant red zone	35-37°C	24-48 Hours
<i>Salmonella Typhimurium</i>	14028	50-100	Good	40-50%	Pink - white	35-37°C	24-48 Hours
<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	25923	>=103	Inhibited	0%	-	35-37°C	24-48 Hours

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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 if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.



GOSLAR BIOTECH
Your Partner in Sera

DISPOSAL

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

Precautions and Disclaimer

- Dissolve 59.09 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in 10 ml amounts into test tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- To maintain selectivity of the medium, **DO NOT OVER STERILIZE OR OVERHEAT** the medium.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder:	Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium:	Greenish brown coloured, clear to slightly opalescent gel forms in Petri plates.
PH (at 25°C):	6.98±0.2

This product is for research use only.