

## TM 548 - SUGAR FREE AGAR

### INTENDED USE

For butter testing as per International Dairy Federations.

### PRODUCT SUMMARY AND EXPLANATION

Butter may be contaminated in the manufacturing process, from contaminated water sources, air or unsanitary equipment. Yeast, moulds and coliforms do not survive pasteurization and are rarely found in butter made under sanitary conditions. Estimates of the number of coliforms, yeasts and moulds or Enterococci in samples of butter taken at various stages of processing are useful in tracing the source of contamination. Sugar Free Agar is prepared as recommended by the International Dairy Federation and is based on the formulation developed by Ritter and Eschmann for the detection and enumeration of contaminating bacteria in butter and other processed dairy products.

Psychrotrophic and mesophilic gram-negative bacteria also grow well on this medium. Some Lancefield group D streptococci are not able to grow on this medium and hence do not interfere in the total count of the gram-negative bacteria. This medium aids differentiating non-lactic acid contaminants from lactic acid bacteria.

### COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	7.500
Pancreatic digest of gelatin	7.500
Sodium chloride	5.000
Agar	14.000

### PRINCIPLE

The medium contains pancreatic digest of gelatin and casein enzymic hydrolysate which provide essential nutrients to the microorganisms. The medium is free of any fermentable carbohydrate and has relatively little nutrient value. Therefore, microorganisms that do not form the normal flora of butter and other processed milk products can be grown selectively on this medium.

### INSTRUCTION FOR USE

- Dissolve 34 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.  
**Appearance of prepared medium** : Medium amber coloured clear to slightly opalescent gel forms in Petri plates.  
**pH (at 25°C)** : 7.6±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
<i>Bacillus cereus</i>	10876	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
<i>Candida albicans</i>	10231	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
<i>Enterococcus faecalis</i>	29212	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
<i>Leuconostoc mesenteroides</i>	8293	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours

#### PACKAGING:

In pack size of 500 gm bottles.

#### 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.







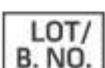


#### DISPOSAL

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

#### REFERENCES

1. International Dairy Federation, 1964, International Standards FIL-IDF 30
2. Ritter P. and Eschmann K. H., 1966, Alimenta, 5 (2): 433. Thomas S. B., 1969, J. Appl. Bacteriol., 32: 269



 <b>GMP</b> Good Manufacturing Practices Certified	 Best Before	 <b>QTY.</b> Quantity	 <b>REF</b> Catalogue Number	 Manufacturer
 Temperature Unit	 <b>LOT/ B. NO.</b> Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

**\*For Lab Use Only**  
**Revision: 08 Nov., 2019**