

Dextrose Tryptone Purple Bromocresol Agar

Art. No. 01-556

Specification

Solid medium for the cultivation of "flat-sour" canned food spoiling microorganisms.

Formula* in g/L

Tryptone.....	10,00
Dextrose.....	5,00
Bromocresol purple.....	0,04
Agar.....	15,00
Final pH 6,9 ± 0,2 at 25 °C	

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Suspend 30 g of powder in 1 L of distilled water and bring to the boil. Distribute in suitable containers and sterilize in the autoclave at 121°C for 15 minutes.

Description

This medium was adopted in 1933 by the National Canners Association for the detection of microorganisms causing "flat-sour" spoilage in canned foods.

Later it was used for the detection and enumeration of all microorganisms related to acid spoilage of foods, like *Bacillus coagulans*, *Sporolactobacillus* and the thermophilic *Bacillus stearothermophilus*.

Technique

The sample or its dilutions are inoculated into the molten medium, cooled to 50°C. Then poured into Petri dishes and incubated for 72 h at 30-32°C (mesophiles) or for 48 hours at 55-60°C (thermophiles). After incubation the acid-producing colonies can be easily enumerated because they show a yellow zone that contrasts with the purple medium.

References

- DOWNES, F.P. & K. ITO (2001) Compendium of methods for the Microbiological Examination of Foods. 4th ed. APHA. Washington.
- HORWITZ, W. (2000) Official Methods of Analysis. AOAC International, Gaithersburg, MD.
- NATIONAL CANNERS ASSOCIATION (1933) Bacterial Standard for Sugar.
- NATIONAL CANNERS ASSOCIATION (1954) A Laboratory Manual for the Canning Industries. 2nd ed. Washington
- NATIONAL CANNERS ASSOCIATION (1968) Laboratory Manual for Food Canners and Processors. Vol. 1 Washington.
- VANDERZANT, C, & D. F. SPLITTSTOESSER (1992) Compendium of Methods for the Microbiological Examination of Foods. 3rd Ed. APHA. Washington D:C. USA.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C and <60 % RH).

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Quality control

Incubation temperature: 35°C ± 2.0

Incubation time: 24 h

Inoculum: 10-100 CFU. Spiral Plate Method

Microorganism	Growth	Remarks
<i>Staphylococcus aureus</i> ATCC 25923	Productivity > 0.70	Yellow medium
<i>Bacillus cereus</i> ATCC 10876	Productivity > 0.70	Violet medium 24 h
<i>Geobacillus stearothermophilus</i> ATCC	Productivity > 0.70	Yellow medium
<i>Escherichia coli</i> ATCC 25922	Productivity > 0.70	Yellow medium



Escherichia coli ATCC 25922



Uninoculated Plate (Control)



Bacillus cereus ATCC 10876