

## Technical Data Sheet

# Dextrose Casein-peptone Agar

Ordering number: 1.10860.0500

Medium proposed by WILLIAMS (1936) for the identification and enumeration of *Bacillus* species, especially of "flat sour" bacteria (TANNER 1944), in foodstuffs.

This medium complies with the recommendations of the NCA (National Canners Association 1954, 1956), and the APHA (1992) for examining foods.

### Mode of Action

Bacterial colonies, which metabolize dextrose to form acid, cause the indicator bromocresol purple in their immediate surroundings to change its colour to yellow.

### Typical Composition (g/L)

Dextrose Casein-peptone Agar	
Peptone from casein	10.0
D(+)-glucose	5.0
Bromocresol purple	0.04
Agar-agar	12.0

\*\*Agar-agar is equivalent to other different terms of agar.

### Preparation

Suspend 27 g/litre, autoclave (15 min at 121°C).

pH: 6.8 ± 0.2 at 25°C.

The medium is clear and purple.

## Experimental Procedure and Evaluation

The culture medium is usually inoculated by the pour-plate method.

Detection of spores: Add the sample material to the culture medium, heat (30 minutes in free-flowing steam) and pour plates.

Detection of mesophilic bacteria: Incubate up to 72 hours at 35 °C.

Detection of thermophilic bacteria: Incubate up to 48 hours at 55-60°C.

Typical flat-sour colonies have a smooth edge, a diameter of 2-3 mm with an opaque central spot and are usually surrounded by a yellow zone. Neighbouring colonies which cause alkalinization of the culture medium can mask the yellow colouration.

## Quality Control

Control strains	Growth	Colour change to yellow
Staphylococcus aureus ATCC 25923 (WDCM 00034)	Fair to very good	+
Enterococcus faecalis ATCC 11700	Good to very good	+
Bacillus cereus ATCC 11778 (WDCM 00001)	Good to very good	+
Bacillus coagulans ATCC 7050 (WDCM 00002)	Good to very good	+
Escherichia coli ATCC 25922 (WDCM 00013)	Good to very good	+
Alcaligenes faecalis ATCC 19209	Fair to very good	-
Bacillus stearothermophilus ATCC 7953	Good to very good	+

Please refer to the actual batch related Certificate of Analysis.



Bacillus cereus ATCC 11778



Escherichia coli ATCC 25922



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## Literature

American Public Health Association Inc.: Compendium of Methods for the Microbiological Examination of Foods. - **3rd ed.**, 1992.

National Canners Association: A Laboratory Manual of the Canning Industry. - **1st ed.**, Washington 1954.

National Canners Association: Ibid. - **2nd ed.**, Washington 1956, 2-9.

TANNER, F.W.: "The Microbiology of Foods." Champaign Ill., Gerard Press, **2nd ed.** 1944, 693-722; 762-763; 1127-1128.

WILLIAMS, O.B.: Tryptone medium for the detection of flat sour spores. - **Food Research, I (3)**, 217-221 (1936).

## Ordering Information

Product	Cat. No.	Pack size
Dextrose Casein-peptone Agar	1.10860.0500	500 g

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