TECHNICAL DATA SHEET

Article No. 9367

Potato Dextrose Agar, ready-to-use culture medium

SPECIFICATION

Ready-to-use culture medium, bottles, sterile. Solid culture medium used for the detection and enumeration of fungi in food, dairy products and other samples acc. to the EP/USP harm.

Colour:	White
pH:	5.6 ± 0.2 at 25 ºC

COMPOSITION IN G/ L

Potato peptone	4.00	(1)
Glucose	20.00	
Agar	15.00	

(1) Equivalent to 200 g Infusion from potatoes

PACKAGE DETAILS

9367-10x200ML

Volume	200 ± 5 ml
Bottle size	250 ml
Packaging unit	10 bottles

1 box with 10 x 200 ml in 250-ml-bottles. Injectable cap: Plastic screw inner cap.

DESCRIPTION/ TECHNIQUE

Description:
Potato Dextrose Agar is a weakly selective medium for fungi due to its high sugar content and acidic pH. Pigment production and aerial mycelium development is enhanced by the potato peptone, especially in Fusarium, Aspergillus and Penicillium species.
The selectivity can be increased by adding antibiotics such as chloramphenicol or tetracycline, or by simply decreasing the pH to an acidic level. At pH 3,5 bacterial growth is almost totally inhibited without a significant

effect on fungi. This acidification can be obtained by the aseptic addition of an adequate amount of organic acid to the medium after sterilization: 10-15 ml/L of a 10 % sterile solution of tartaric or lactic acid is usually sufficient. After acidification the medium should not be overheated or reheated since the agar may then hydrolyze causing a potential loss in the solidification property of the medium.

Technique:
For use, the content of the bottle should be poured into plates. The melting of the culture medium should be carried out according to the manufacturer's instructions, either in a water bath or microwave oven. Never apply direct heat to melt a medium. The melting temperatures and times depend on the shape of the container, the volume of medium and the heat source. Before melting any medium loosen the screwcap of the container to avoid breaking the container. The medium should be melted only once and used. Media with agar should not be melted repeatedly as their characteristics change with each remelting. Overheating should be avoided as much as prolonged heating, especially with regard to media with an acidic or alkaline pH. Once melted pour the plates using aseptic techniques.
To inoculate, follow standard laboratory methods or the applicable norms. Spiral plate method, streak plating, econometric methods, dilution banks, spread plating etc.
The usual technique for the use of this medium is as follows:
Melt the flask and pour plates, after solidified, inoculate by streaking isolation method or by the spiral plating method. If it is decided to acidify the medium, distribute the diluted samples into sterile Petri dishes. Pour over molten agar cooled to 45-50 °C and gently mix to homogenize the mixture. After solidification, plates are incubated for 5-7 days at 20-25 °C to permit the complete development of the fungal colonies.
The weak consistency of the agar due to its original acidity makes this medium inadequate for streaking.

Note: The solid mediums can be melted in different ways: autoclave, bath and, if the customer considers appropriate, also the microwave. Whenever the microwave option is chosen, it is necessary to take certain safety measures to avoid breaking of the containers, such as loosening the screw cap and putting the bottle or tube in a water bath in the microwave. The fusion temperature and time will depend on the shape of the container, the volume of medium and the heat source. Avoid overheating and long heating periods.

MICROBIOLOGICAL CONTROL

Melting- pour plates- Inoculate: 50-100 CFU accord. to Ph. Eur. & acc. to ISO 11133 standard.

Aerobic incubation at 22.5 ± 2 ºC for 5 days (moulds and yeast).

Microorganism	Growth
Aspergillus brasiliensis ATCC® 16404, WDCM 00053	Good (≥70%)
Candida albicans ATCC® 10231, WDCM 00054	Good (≥70%)
S. cerevisiae ATCC® 9763, WDCM 00058	Good (≥70%)

Sterility control:
Incubation 48 hours at 30-35 ºC and 48 hours at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

REFERENCES

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· EUROPEAN PHARMACOPOEIA 8.0 (2014) 8th ed. § 2.6.13. Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. EDQM. Council of Europe. Strasbourg.
. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
· RICHARDSON, G.H. (1985) Standard Methods for the examination of dairy products 15th ed. APHA. Washington.
· USP 33 - NF 28 (2011) <62> Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. USP Corp. Inc. Rockville. MD. USA.
· VANDERZANT, C. & D.F. SPLITTSTOESSER (1992) Compendium of methods for the microbiological examination of foods. 3rd ed. APHA. Washington

STORAGE

8 - 25 °C

SHELF LIFE

16 months unopened from date of manufacture

created: 09.09.2022

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