

PRODUCT CODE: 433799

Plate Count Agar (PCA)(Contact Plate) for microbiology

Specification

Medium for aerobic plate counts by the surface inoculation method (standard Plate Count Agar) according to ISO 4833, 8552 & 17410 Standards and IFU No. 6.

Presentation

30 Prepared Contact Plates - Irradiated	Packaging Details	Shelf life	Storage
Contact Plates - Double Wrapping with: 15 ± 2 ml.	1 box with 5 blisters (base of aluminium, PVDC and bag) with 6 contact plates/blister. Every pack exhibitis an irradiation indicator (8-14kGy).	7 months	2-25°C

Description and Technique

Description

The Plate Count Agar formulation is according to that of Buchbinder et al. as recommended in their study of media for the plate count of microorganisms.

The original formulation of the standardized agar for dairy microbiology has been modified in order to avoid the addition of milk. This new composition allows the growth of most microorganisms without any further additions.

This medium's formulation is equivalent to that escribed by the 'Standard Methods for the Examination of Dairy products', the USP's 'Tryptone Glucose Yeast Agar', the 'Deutsche Landwirtschaft' and to the APHA and AOAC's Plate Count Agar. This is the medium of choice for the plate count of any type of sample.

Technique

Contact plates are used in the microbiological control of disinfection and cleaning of surfaces. It acts simultaneously as a sampler and incubation culture medium without the need for any other intermediate steps.

The plates come in a form appropriate for this function and can be used with different culture media depending on the type of microbe that needs to be controlled. On average the plates provide a contact surface of approximately 25 cm².

To use, remove the cover and gently press the culture medium on the surface to be controlled, ensuring contact between the two surfaces. The Contact plate is removed and covered with the lid to prevent air contamination. It is advisable that the lid is secured with adhesive tape and the bottom labelled with the sampling data (place, date and time).

If the sample surfaces are rough, the contact plates will not make good contact, even when the pressure is increased. In these cases it is advisable to delineate an sample surface area of 25 cm squared and rub this area vigorously with a wet sterile swab and then rub the swab over the Contact plate.

If verifying the effectiveness of a cleaning or disinfection process, contact plates should be used within two hours after the end of the process, ensuring that the sample surface is dry. It is advisable to always include positive controls, sampling the area before disinfection or dirty areas beside the disinfected area.

The technician will determine the frequency of sampling and disinfection according to performance criteria. Apply the agar directly onto surface to be monitored ensuring that the pressure is distributed over the whole plate for 10 seconds. Clean the surface where the sample was collected in order to remove any traces of agar.

The inoculated plates are incubated at 30±1°C for 24-48-72 hours and examined daily.

Note: Contact plates are used for monitoring the microbiological contamination of surface and air inside cleanrooms, isolators, RABS, food industries and hospitals. The double/triple irradiated wrapping ensures that the package itself doesn't contaminate the environment as the first wrapper is removed just before entering the clean area.

Quality control

Physical/Chemical control	Microbiological control	Sterility control
Color: Yellowish. pH: 7 ± 0.2 at 25°C.	Inoculate: Practical range 100±20 CFU; Min. 50 CFU (Productivity). Aerobiosis. Incubation at 30 ± 1°C, reading at 24-48-72 h	Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH Check at 7 days after incubation in same conditions.
Microorganism	Growth	
<i>Bacillus subtilis</i> ATCC® 6633, WDCM 00003	Good (≥70 %)	
<i>L. monocytogenes</i> ATCC® 35152, WDCM 00109	Good (≥70 %)	
<i>Escherichia coli</i> ATCC® 8739, WDCM 00012	Good (≥70 %)	
<i>Staphylococcus aureus</i> ATCC® 6538, WDCM 00032	Good (≥70 %)	

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