Reference: 064-TA0325 **Scharlau Microbiology - Technical Data**

Product: **PCA (Plate Count Agar)**

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

	Packaging Details	Shelf Life	Storage
20 Tubes Tube 18 x 140 mm with: 15 ± 0.3 ml	17x145 mm glass tubes, ink labelled, metal-Non injectable cap. - 20 tubes per box .	12 months	8-25 ºC

Composition

Composition (g/l):

Peptone from casein	5.0
Yeast extract	2.5
D(+)Glucose	1.0
Agar	15.0

Description /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 Landswirtchaft' and to the APHA, ISO and AOAC's Plate Count Agar. This is the medium of choice for the plate count of any type of sample.

Technique:

To use, the contents of the tube 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 (100ºC) or microwave oven.

The incubation time and temperature depend on the type of microorganism under study. For a general aerobic count, incubate for 3 days at 30°C. Taking readings after 24, 48 and 72 hours.

After incubation, enumerate all the colonies that have appeared onto the surface of the agar.

Each laboratory must evaluate the results according to their specifications.

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 as both the heating periods.

Quality control

Physical/Chemical control

Color : Yellowish pH: 7.0 ± 0.2 at 25ºC

Microbiological control

Melt Medium - Prepare Plates - Spiral Spreading: Practical range 100 ± 20 CFU. min. 50 CFU (productivity)

Microbiological control according to ISO 11133:2014/A1:2018.

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020

Aerobiosis. Incubation at 30 ± 1 ºC, reading at 72 ± 3h

Ps. fluorescens ATCC 13525 (10 days/ 6,5 ºC ±1) acc. ISO 17410

Microorganism	Growth
Bacillus subtilis ATCC® 6633, WDCM 00003	Good (≥70%)
Escherichia coli ATCC® 8739, WDCM 00012	Good (≥70%)
Stph. aureus ATCC® 25923, WDCM 00034	Good (≥70%)
L. monocytogenes ATCC® 35152, WDCM 00109	Good (≥70%)
Ps. fluorescens ATCC®13525, WDCM 00115	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.

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