Condalab

Reference: 5172 **Technical Data Sheet**

Product: MILK PLATE COUNT AGAR

Specification

Solid medium for the plate count of milk and dairy products, according to DIN and FIL/IDF standards.

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottle Bottle 125 ml with: 100 ± 3 ml	1 box with 10 bottles 125 ml. metal-Non injectable cap.	16 months	8-25°C

Composition

Composition (g/l):

Tryptone	5.00
Yeast extract	2.50
Skimmed milk	1.00
Dextrose	1.00
Agar	10.50

Description /Technique

Description

This medium, with added milk, is more nutrient rich than other standard media; however, the opalescence of the medium makes early observations sometimes difficult.

Due to its lower agar concentration, it may be used for the pour plate method or the spread plate method.

Technique

To use, the contents 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 (100°C) 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...

Technique recommended use:

Prepare ten-fold serial dilutions of the sample and take 1 mL in duplicate aliquots from each dilution and put them in sterile Petri dishes. Pour approx. 20 mL of sterile cooled medium (around 45°C) in each of the plates. Mix gently by swirling the plate in a figure 8. Leave the plates undisturbed to solidify and incubate in an inverted position. The incubation time and temperature depend on the type of microorganism under investigation. In general for an aerobic count, incubate for 3 days at 30°C. Checking the plates at 24, 48 and 72 hours.

The plate count method proposed by the APHA consists of the pour plate method i.e. pouring the molten agar at 50°C on plates containing the diluted samples. The final count is carried out after 48 hours of incubation at 32 -35°C.

For microorganisms with other temperature requirements, the following incubations have been suggested: 2 days at 32-35°C, 2-3 days at 45°C, 2 days at 55°C, 3-5 days at 20°C, 7-10 days at 5-7°C.

Sample dilutions are prepared with 1/4 Ringer's solution, Buffered Peptone Water or Maximum Recovery Diluent depending on their nature.

The poured plate count method is preferred to the surface inoculation method, since it gives higher counts, although the latter facilitates isolation and reseeding of the colonies.

Quality control

Physical/Chemical control

Color : White pH: 7 ± 0.2 at 25°C

Microbiological control

Melt Medium - Prepare Plates - Spiral Spreading: Practical range 100±20 CFU; Min. 50 CFU (Productivity)
Microbiological control according to ISO 11133:2014/ Adm 1:2018.

Aerobiosis. Incubation at 30 ± 1°C, reading at 24-48-72 h

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Good (≥70 %)
Bacillus subtilis ATCC® 6633, WDCM 00003	Good (≥70 %)
Escherichia coli ATCC® 8739, WDCM 00012	Good (≥70 %)
Stph. aureus ATCC® 25923, WDCM 00034	Good (≥70 %)

Sterility Control

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

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