

Specification

Solid and selective medium for the isolation and enumeration of fungi in milk and dairy products according to ISO 7954 and FIL-IDF 94B Standards.

Presentation

10 Prepared bottles
Bottle 250 ml
with: 200 ± 5 ml

Packaging Details

1 box with 10 bottles 250 ml. Plastic screw inner cap.

Shelf Life

12 months

Storage

8-25 °C

Composition

Composition (g/l):

Yeast extract.....	5.0
D (+) Glucose.....	20.0
Chloramphenicol.....	0.1
Agar.....	15.0

Description /Technique

Description:

This medium is recommended by the Federation International Laitière-International Dairy Federation (FIL-IDF) for the isolation and enumeration of fungi (moulds and yeast) in milk and dairy products. This medium has also been adopted by the DIN and ISO standards. This medium's selectivity is due to the bactericidal action of chloramphenicol which, due to its thermostable it, may be sterilized with the medium in the autoclave.

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Once solidified on a flat surface, spread the plates by streaking method or by spiral method. This medium can be inoculated directly or after enrichment with broth.

Incubation times greater than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications,...

Place the plates upside down in the incubator, in aerobic conditions. Incubate the yeast and moulds for 48 hours until 5 days at 25°C±1.

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.

It's advisable to melt the medium only once and use. 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 regarding media with an acidic or alkaline pH. Once melted pour the plates using aseptic techniques.

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 : Straw-coloured yellow pH: 6.6 ± 0.2 at 25°C

Microbiological control

Melting - pour plates - inoculation Practical range 100 ± 20 CFU. min. 50 CFU (productivity) / 10⁴-10⁶ CFU (selectivity)

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

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

Aerobiosis. Incubation at 25 °C ±1, reading at 72 h to 5 days.

Microorganism

Aspergillus brasiliensis ATCC® 16404, WDCM 00053

Candida albicans ATCC® 10231, WDCM 00054

S. cerevisiae ATCC® 9763, WDCM 00058

Bacillus subtilis ATCC® 6633, WDCM 00003

Escherichia coli ATCC® 25922, WDCM 00013

Growth

Good (≥70%)

Good (≥70%)

Good (≥70%)

Inhibited

Inhibited

Sterility control

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

Bibliography

· DIN Standard 10186. Mikrobiologische Milch Untersuchung. Bestimmung der Anzahl von Hefen und Schimmelpilzen.

Referenzverfahren.

· FIL-IDF 94B Standard (1991) Enumeration of yeast and moulds. Colony Count Technique at 25°C.

· ISO 7954 Standard (1987) General guidance for enumeration of yeast and moulds - Colony count at 25°C.

· ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.