

Specification

Medium for detection, isolation and enumeration of fungi, particularly yeast and moulds, also from air and water samples.

Presentation

10 Prepared bottle
Bottle 125 ml
with: 100 ± 3 ml

Packaging Details

1 box with 10 bottles 125 ml. Injectable cap: Plastic screw inner cap. The use of syringes needles with a diameter greater than 0.8 mm is not recommended

Shelf Life

18 months

Storage

8-25 °C

Composition

Composition (g/l)

Malt Extract.....	30.00
Soy Peptone.....	3.00
Agar.....	15.00

Description /TechniqueDescription:

Malt Extract Agar promotes the growth of almost all fungi because of its balanced composition, and its ability to inhibit most bacteria due its low pH.

Technique:

Melt the medium contained in the bottles in a water bath (100°C) or in a microwave oven, avoiding overheating before pouring into Petri dishes when cooled to room temperature.

Once solidified on a flat surface, Spread the plates by streaking methodology or by spiral method.

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

Spread the plates by streaking methodology or by spiral method. Incubate the plates up aerobically at 25-30 °C for 48h up 5 days.

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

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.

Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor if streaked a diluted sample. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

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 : yellow

pH: 5.6 ± 0.2 at 25°C

Microbiological controlSpiral Spreading: 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.

Aerobic. Incubation at 22.5 ± 2 °C 3-5 days (moulds and yeast).

Microorganism**Growth***Candida albicans* ATCC® 10231, WDCM 00054

Good

S. cerevisiae ATCC® 9763, WDCM 00058

Good

Aspergillus brasiliensis ATCC® 16404, WDCM 00053

Good

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

- ATLAS, R.M., L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press, Inc. London.
- BALLOWS, HAUSLER, HERMAN, ISENBERG & SHADOMY (eds.) (1991) Manual of Clinical Microbiology. ASM. Washington.
- DOWNES, F.P. & K. ITO (2001) Compendium of Methods for the Microbiological Examination of Foods. 4th ed. APHA. Washington.
- FDA (Food and Drug Administrations) (1978) Bacteriological Analytical Manual A.O.A.C. Washington.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ISO 16000-17:2008 Indoor Air - Detection and enumeration of moulds - Culture Based method.
- RAPP, M (1974) Indikator-Zusätze zur Keimdifferenzierung auf wärze und Malzextrakt Agar. Milchwiss. 29:341-34.
- REIS, J. (1972) Ein selektives kulturmedium für der Nachweiss von *Aspergillus flavus*. Zbl. Bakt. Hyg. I. Abt. Orig. 220:564-566.