Condalab

Reference: 0988 **Technical Data Sheet**

Product: **M-GREEN YEAST AND MOULD AGAR**

Specification

Solid selective culture medium for enumeration of fungi according to ISO standard 10718:2002. Specially for brewery industries.

Presentation

	Packaging Details	Shelf Life	Storage
20 Prepared Plates 90 mm with: 21 ± 2 ml	1 box with 2 packs of 10 plates/pack. Single cellophane.	3 months	2-14°C

Composition

Composition (g/l):

Dextrose	50,000
Peptone	10,000
Yeast extract	9,000
Magnesium sulfate	2,100
Potassium phosphate	2,000
Diastase	0,050
Thiamine	0,050
Bromocresol green	0,026
Agar agar	15,000

Description /Technique

This classical formulation used by the food industry for the detection and enumeration of yeast and moulds by the membrane filter method was adopted by ISO for application in cork stoppers for alcoholic or non-alcoholic beverages in the 10718:2002 Standard. The composition of the culture broth includes Bromocresol Green indicator that facilitates the visualization and counting of fungal colonies. The fungal colonies are green due to the diffusion of the dye into the colonies (alkaline reaction). The end products of the microbial growth diffuse into the medium, reducing the pH and turn the indicator to yellow (acid reaction). Bacterial growth is inhibited by the acid pH.

Roll the membrane filter used to filter the test sample onto the surface of the medium, avoiding the formation of air bubbles. Incubate the plates at 30 ± 2°C for 3 days. Observe and count the colonies on each plate at least every 24 hours.
After incubation colonies appearing on the filter surface can be counted. Mould colonies generally appear green and filamentous, whereas yeast colonies are green and opaque.

Quality control

Physical/Chemical control

Color : Green pH: 4.6 ± 0.2 at 25°C

Microbiological control

Spiral Spreading /MF Methods; Practical range 100±20 CFU; Min. 50 CFU (Productivity) / 10^4-10^6 CFU (Selectivity).
Aerobiosis. Incubation at 22.5°C±2.5.Reading at 24-72 h for bacteria and 3-5 days to yeasts and moulds.

Microorganism	Growth
Candida albicans ATCC® 10231, WDCM 00054	Good
S. cerevisiae ATCC® 9763, WDCM 00058	Good
Aspergillus brasiliensis ATCC® 16404, WDCM 00053	Good
Bacillus subtilis ATCC® 6633, WDCM 00003	Inhibited - poor

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

Bibliography

· ATLAS, R.M. & L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press. London. ISO Standard 10718:2002 Cork stoppers. Enumeration of colony-forming units of yeasts, moulds and bacteria capable of growth in an alcoholic medium.
. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.