

Reference: 4666 Technical Data Sheet

Product: WL NUTRIENT MODIFIED AGAR

Specification

Solid culture medium for the selective enumeration of bacterial contaminants in yeast-fermenting industrial processing.

Presentation

10 Prepared bottle	Packaging Details	Shelf Life	Storage
Bottle 125 ml	1 box with 10 bottles 125 ml. metal-Non injectable	16 months	2-25°C
with: 100 ± 3 ml	cap.		

Composition

Composition (g/l):	
Yeast extract	4.0000
Tryptone	5.0000
Dextrose	50.0000
Monopotassium phosphate	0.5500
Magnesium sulfate	0.1250
Calcium chloride	0.1250
Potassium chloride	0.4250
Iron (III) chloride	0.0025
Manganese sulfate	
Bromcresol green	
Cicloheximide	0,0040
Aggr	15.0000

Description / Technique

The formulation of this medium corresponds to the WL Nutrient Agar with the addition of cycloheximide, which inhibits the growth of yeasts and thus facilitates the growth of contaminating bacteria in fermentation processes.

For the differentiation between brewers yeast (wild type) it is better to use the medium with pH adjusted to 6.5, then being able to differentiate both the colonial morphology and by different shades of color they acquire.

Melt the medium contained in bottles in a water bath (100°C) or in a microwave oven, avoiding overhating, before pouring into Petri dishes (90 mmø) when cooled to room temperature.

Once solidified on a flat surface, spread the plate streaking methodology or by spiral method.

Plates prepared with both the media are generally incubated at 25 °C, if brewing materials are being studied, and at 30 °C for bakers yeast and alcohol mash samples. Incubation may be continued for a 4-7days or ten days to two weeks, depending upon the microbiota present. Counts can be made at intervals during the incubation period.

Quality control

Physical/Chemical control

Color : Sightly green pH: 6.5 ± 0.2 at 25° C

Microbiological control

Melt Medium - Pour plates - inoculation Practical range 100±20 CFU; Min. 50 CFU (Productivity)/ 10⁴-10⁶ (Selectivity). Aerobiosis. Incubation at 20-25°C. Reading at 2-3 days up to 5 d.

Microorganism Growth

S. cerevisiae ATCC® 9763, WDCM 00058 Inhibited

Escherichia coli ATCC® 25922, WDCM 00013 Good-Green colonies

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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Bibliography

- · ATLAS, R.M., L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press, Inc. London.
- · GRAY, P.P. (1951) Some Advances in Microbiological control for beer quality. Wallerstein Lab. Com. 14:169.
- · GREEN, S.R. & GRAY, P.P. (1950) Procedure for bacteriological investigation in brewing Paper read at Am. Soc. of Brewing Chemists Meeting. Wallerstein Lab. Com. 12:43.
- · GREEN, S.R. & GRAY, P.P. (1950) A differential procedure applicable to bacteriological investigation in brewing. Wallerstein Lab. Comm. 13:357.
- · GREEN, S.R. & GRAY, P.P. (1951) A differential procedure for bacteriological studies useful in the fermentation industries. Wallerstein. Lab. Com. 14:289.
- · HALL J. F. (1971) J. Inst. Brewing 77. 513-516.
- . ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- · MBAA (2002) The Practical Brewer. 3rd ed. Master Brewers Association of Americas. St. Paul. Minnesota.

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