TECHNICAL DATA SHEET

Article No. 9390

Nutrient Agar ISO, prepared plates

SPECIFICATION

Solid culture medium for general purpose use with less fastidious organisms according to ISO standards.

Color:	yellowish
pH:	7.4 ±0.2 at 25 ºC

COMPOSITION IN G/L

Meat extract	1.00
Yeast extract	2.00
Peptone	5.00
Sodium chloride	5.00
Agar	15.00

PACKAGING DETAILS

9390-20PLATES
20 prepared plates 90 mm

Content:	21 ±2 ml
Packaging unit:	1 box with 2 packs of 10 plates/pack. Single cellophane.

GUIDELINES

Description:
Nutrient Agar is a simple medium based on meat infusions, complemented with yeast extract to reinforce its nutrient qualities as well as its growth factors. It is most suitable for general routine work and can support the growth of common organisms, even those considered somewhat fastidious with regard to nutrient requirements. The incorporation of sodium chloride allows for the addition of blood if necessary, even though this is not an optimal medium for very fastidious organisms.

Technique:
Collect and process sample volumes according to the specifications of directives, regulations, standards or specific protocols established depending on the objectives. Spread the plates by streaking or spiral method.

Incubate plates upside down under aerobic conditions at 36 ±2 ºC for 22 ±2 h. Incubation times longer than these or different incubation temperatures may be required depending on the sample and on the specifications.
This medium can be inoculated directly or after enrichment broth.
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 a diluted sample was used. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

MICROBIOLOGICAL CONTROL

Inoculate: Practical range 100 ±20 CFU. Min. 50 CFU (productivity).

Microbiological control acc. to ISO 11133:2014/ Adm 1:2018.

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

Aerobiosis. Incubation at 36 ±2 ºC, reading at 21 ±3 h.

Microorganism	Growth
Bacillus subtilis ATCC® 6633, WDCM 00003	Good (≥70 %)
Salmonella typhimurium ATCC® 14028, WDCM 00031	Good (≥70 %)
Escherichia coli ATCC® 8739, WDCM 00012	Good (≥70 %)
Staphylococcus aureus ATCC® 6538, WDCM 00032	Good (≥70 %)
Ps. aeruginosa ATCC® 9027, WDCM 00026	Good (≥70 %)

Sterility control:
Incubation 48 hours at 30-35 ºC and 48 hours at 20-25 ºC: 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.
· DOWNES, F.P. & K. ITO (2001) Compendium of Methods for the Microbiological Examination of Foods. 4th ed. APHA. Washington. DC. USA.
· EUROPEAN NORME (EN) 12780:2002 Water Quality - Detection and enumeration of *Pseudomonas aeruginosa* by membrane filtration.
· ISO 8914-1 Standard (1990) Microbiology- General guidance for the detection of *Vibrio parahaemolyticus*.
· ISO 16266 Standard (2006) Water Quality - Detection and enumeration of *Pseudomonas aeruginosa* - Method by membrane filtration.
· ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.

STORAGE

2-14 °C

SHELF LIFE

3 months

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