TECHNICAL DATA SHEET

Article No. 9396

Nutrient Agar DEV, ready-to-use culture medium

SPECIFICATION

Prepared medium. Medium for determining the total microbial count in water according to the German Standard Methods, DIN 38411-6, the German Drinking Water Regulations and the German regulation for food examination.

Colour:	Yellowish-brown
pH:	7.3 ± 0.2 at 25 ºC

COMPOSITION IN G/ L

Meat extract	10.0
Peptone	10.0
Sodium chloride	5.0
Agar	18.0

PACKAGE DETAILS

9396-20x15ML

Volume	15 ± 0.3 ml
Tubes size	17x145 mm

Packaging unit

1 box with 20x15 mL tubes, 17x145 mm glass tubes, ink labelled and metal-Non injectable cap.

9396-10x200ML

Volume	200 ± 5 ml
Bottle size	250 ml
Packaging unit	10 bottles

1 box with 10 x 200 ml in 250-ml-bottles. Injectable cap: Plastic screw inner cap.

9396-10x450ML

Volume	450 ± 5 ml
Bottle size	500 ml
Packaging unit	10 bottles

1 box with 10 x 450 ml in 500-ml-bottles. Injectable cap: Plastic screw inner cap.

DESCRIPTION

Nutrient Agar DEV differs from the usual nutrient formulations in that the greater concentration of nutrients allows improved recovery of stressed or damaged microorganisms. this formulation is according to the German regulation in food and Drinking water samples.

TECHNIQUE

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.
Melt the medium contained in the bottles in a water bath (100 ºC) 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.
Incubate the plates right side up aerobically at 35±1 ºC for 44±4 h. (Incubation times greater than those mentioned above or different incubation temperatures may be required depending on the sample, 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 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.

MICROBIOLOGICAL CONTROL

Melting of the culture media - pour plates - inoculation Practical range 100 ± 20 CFU. min. 50 CFU (productivity).
Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020
Aerobiosis. Incubation at 35 ± 2 ºC reading at 44 ± 4 h

Microorganism	Growth
Bacillus subtilis ATCC® 6633, WDCM 00003	Good (≥70%)
Escherichia coli ATCC® 25922, WDCM 00013	Good (≥70%)
Pseudomonas aeruginosa ATCC® 27853, WDCM 00025	Good (≥70%)
Salmonella typhimurium ATCC® 14028, WDCM 00031	Good (≥70%)
Staphylococcus aureus ATCC® 25923, WDCM 00034	Good (≥70%)
Klebsiella pneumoniae ATCC® 13883, WDCM 00097	Good (≥70%)
Aeromonas hydrophila ATCC® 7966, WDCM 00063	Good (≥70%)
Streptococcus pyogenes ATCC® 19615	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.

REFERENCES

- DIN 38411-6 (1991) Deutsche Einheitsverfahren zur Wasser-, Abwasser- und Schlammuntersuchung; Mikrobiologische Verfahren (Gruppe K); Nachweis von Escherichia coli und coliformen Keimen (K6).
- Verordnung über Trinkwasser und über Wasser für Lebensmittelbetriebe vom 12. Dezember 1990. Bundesgesetzbl.: Teil I 2613-2669 (1990).
- Bundesgesundheitsamt: Amtliche Sammlung von Untersuchungsverfahren nach §35 LMBG. Beuth Verlag Berlin- Köln.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.

STORAGE

8 - 25 °C

SHELF LIFE

Tubes: 12 months unopened from date of manufacture
Bottles: 16 months unopened from date of manufacture

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