Reference: 825502ZA **Technical Data Sheet**

Product: **R2 Broth - 2,5 ml**

Specification

Liquid medium for the enumeration of heterotrophic microorganisms in treated waters according to MF Method.

Presentation

	Packaging Details	Shelf Life	Storage
50 Tubes Tubes 3 ml (capacity) with: 2,5 ± 0.1 ml	1 box with 50 tubes manufactured from non- toxic polypropylene. Suitable for cultivation and transport of biological material.	9 months	8-25 ºC

Composition

Composition (g/l):

Proteose peptone	0,500
Casein hydrolysate (Tryptone)	0,500
Yeast extract	0,500
D(+)-Glucose	0,500
Starch	0,500
Sodium pyruvate	0,300
Dipotassium phosphate	0,300
Magnessium suphate (anh.)	0,024

Description /Technique

The water sample must be processed as quickly as possible. If it is not possible to process within the first 6 hours, the sample must be refrigerated, but not for more than 30 hours.
R2A Agar can be used for pour plates, streak plates or filtration. The pour plate method can affect the recovery capacity of the medium because due to thermal shock when mixing molten agar with the sample. The liquid version (R2 broth) is used as growth support, by method of MF, after adding sufficient medium on a sterile pad.
Incubating at 30-35ºC for a period of 3-5 days is recommended.

If the membrane filtration method is used, impregnate a sterile pad with the medium and deposit the MF on the pad and incubate. Plates must be protected against dehydration.
According to internal regulations or methodologies of each laboartory, temperature and incubation time can vary.

Note: The material and quality of membrane filter affects the microorganisms recovery significantly.

Quality control

Physical/Chemical control

Color : Yellowish pH: 7.2 ± 0.2 at 25ºC

Microbiological control

Membrane Filtration /Practical range 100 ± 20 CFU. min. 50 CFU (productivity)./10^4-10^6 CFU (selectivity)/ ≥10^3 CFU (specificity).

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

Aerobiosis. Incubation at 30-35 ºC. Read after 18-24 h to 72 h for bacteria and 3-5 days for fungi.

Microorganism	Growth
Bacillus subtilis ATCC® 6633, WDCM 00003	Good (≥50 %)
Staphylococcus aureus ATCC® 6538, WDCM 00032	Good (≥50 %)
Ps. aeruginosa ATCC® 9027, WDCM 00026	Good (≥50 %)
Escherichia coli ATCC® 8739, WDCM 00012	Good (≥50 %)
Candida albicans ATCC® 10231, WDCM 00054	Good (≥50 %)
Aspergilus brasiliensis ATCC® 16404, WDCM 00053	Good (≥50 %)

Sterility Control

Incubation 48 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

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