

Specification

Solid medium for the enumeration and isolation of *Clostridium perfringens* in water according to the European Directive 12767/97.

Presentation

	Packaging Details	Shelf Life	Storage
30 Prepared Plates			
55 mm Plates for filtration purposes with: 9 ± 1 ml	1 box containing: 5 plastic bags with 6 plates of 55 mm/ bag.	3 months	2-14°C

Composition

Composition (g/l):	
Tryptose.....	30.000
Yeast Extract.....	20.000
Sucrose.....	5.000
L-Cysteine HCl.....	1.000
Magnesium sulfate.7H ₂ O.....	0.100
Bromocresol purple.....	0.040
D-Cycloserine.....	0.400
Polymyxin B sulfate.....	0.025
3-Indoxyl-β-D-Glucopyranoside.....	0.060
Phenolphthalein bi-phosphate 0.5%.....	20 ml
Fe III Chloride sol.4.5%.....	2 ml
Agar.....	15.000

Description /Technique

Description:

The m-CP Agar Base is a solid medium for counting and isolating vegetative cells and spores of *Clostridium perfringens* by the membrane filtration method. Its use is compulsory in determining the quality of water for human consumption according to the European Union by Directive 12767 (12-07-1997) of the European Council.

Technique:

A suitable volume of water is filtered through a membrane filter of 47 mm diameter and 0,45 µm pore. The membrane is then placed on the surface of freshly prepared m-CP medium and incubated in an anaerobic atmosphere at $44 \pm 1^\circ\text{C}$ for 21 ± 3 hours. Expose the growth obtained to ammonium hydroxide vapours for 20-30 seconds. Count as *Clostridium perfringens* all the opaque yellow colonies that turn pink or red after ammonium hydroxide exposure. Express the results as CFU/mL.

Quality control

Physical/Chemical control

Color : Violet pH: 7.6 ± 0.2 at 25°C

Microbiological control

Membrane Filtration /Practical range 100 ± 20 CFU; Min. 50 CFU (Productivity)./ 10^4 - 10^6 CFU for Selectivity.
Microbiological control according to ISO 11133:2014/ Adm 1:2018.

Anaerobiosis. Incubation at $44 \pm 1^\circ\text{C}$ during 21 ± 3 h.

Microorganism

<i>Clostridium perfringens</i> ATCC® 13124, WDCM 00007, NCTC® 8237	Good - opaque yellowish colonies
<i>Clostridium perfringens</i> ATCC® 10543, WDCM 00174	Good - opaque yellowish colonies
<i>Escherichia coli</i> ATCC® 25922, WDCM 00013	Inhibited

Growth

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

- European Council (1997) Directive 12767/97 on the quality of water destined for human consumption. EC Bull. 16-12-1997.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.