



AquaCHROM™ ECC

Instructions For Use

Available in english

NT-EXT-36

Version 7.0

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AquaCHROM™ ECC

Instructions For Use

MEDIUM PURPOSE

Chromogenic medium for the detection and enumeration of *E. coli* and coliforms in water samples. Coliforms, Enterobacteriaceae able to ferment lactose, are bacteria present in human and warm blooded animals intestinal flora, in the soil and water. Coliforms are indicators of organic, environmental or faecal contamination. Strict regulations exist for *E. coli*/coliform absence in water and food samples. This can be explained by the importance of these germs in determining water and food safety. Worldwide, water and food quality control for human consumption are based on detecting the presence/absence of *E. coli* and coliforms.

COMPOSITION

The product is composed of a powder medium.

Product	=	Pack
Total g/L		22.3 g/L
Composition g/L		Peptone and growth regulators 20.0 Chromogenic and selective mix 2.3
Aspect		Powder Form
STORAGE		15-30 °C
FINAL MEDIA pH		7.1 +/- 0.2

PREPARATION

Preparation

- This product is supplied ready to use, in pre-weighed doses.
- Each dose is for a 100 mL water sample.

Storage

- Store in the dark before use.
- The product can be stored until the shelf life indicated on the label.

INOCULATION

Water samples are to be processed as follows:

Presence/absence



1. Add 1 vial of AquaCHROM™ ECC in a sterile transparent vessel containing the 100 mL water sample



2. Close and shake until dissolution

18-24 h 35-37 °C



3. Incubate



4. Read the results (*E. coli*/coliforms).

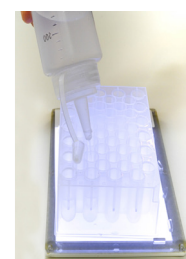
MPN method



1. Pour 100 mL of water sample in a dispenser



2. Add 1 vial of AquaCHROM™ ECC and swirl



3. Dispatch into each well (approx. 3/4 of well capacity)

Or 24 h 35-37 °
36 h 25°



4. Incubate



5. Ready for counting!
Green wells: *E. coli*
Yellow wells: Coliforms

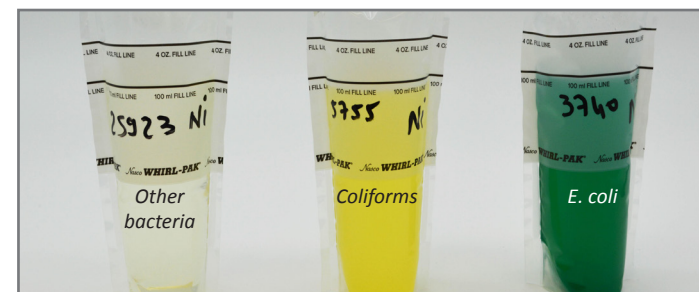
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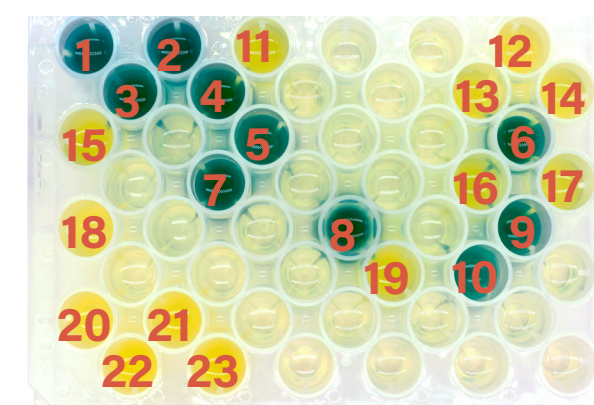
INTERPRETATION

Microorganism	Typical appearance
<i>E. coli</i>	→ green to blue-green
Other coliform bacteria	→ yellow
Other bacteria	→ colorless or inhibited

Typical appearance



The pictures shown are not contractual.



PERFORMANCE & LIMITATIONS

- Some rare strains of *E. coli*, like *E. coli* O157, may display yellow coloration.
- Some rare strains of *Salmonella* can give a dark blue coloration.
- Colorless results can be obtained with some atypical strains of coliforms.
- AquaCHROM™ ECC (Presence/absence and MPN methods) has been validated by the AOAC RI under the Performance Tested MethodsSM Program for the analysis of water samples, including tap water, well water, lake water, bottled water,...
- Bacterial identification can be confirmed by biochemical tests.
- The dispenser and the 48-well plate can be sterilized by autoclaving after each test to be used several times !

- **Presence of *E. coli*:** Count only green wells (in this example 10 green wells).
- **Presence of *E. coli* and coliforms :** Count green and yellow wells (in this example, 23 colored wells).

Positive wells	MPN	Lower 95 %	Upper 95 %
0	0	0	3.8
1	1.1	0.14	7.8
2	2.1	0.52	8.8
3	3.2	1	10
4	4.4	1.6	12
5	5.5	2.2	13
6	6.7	2.9	15
7	7.9	3.7	17
8	9.1	4.5	19
9	10	5.3	20
10	12	6.2	22
11	13	7.1	24
12	14	8.1	26
13	16	9	28
14	17	10	30
15	19	11	31
16	20	12	34
17	22	13	36
18	24	15	38
19	25	16	40
20	27	17	42
21	29	18	45
22	31	20	47
23	33	21	50
24	35	23	53

Refer to AquaCHROM™ ECC MPN table

Positive wells	MPN	Lower 95 %	Upper 95 %
25	37	24	55
26	39	26	58
27	41	28	61
28	44	30	65
29	46	32	68
30	49	34	72
31	52	36	76
32	55	38	80
33	58	40	84
34	62	43	89
35	65	45	94
36	69	48	99
37	74	51	110
38	78	55	110
39	84	58	120
40	90	62	130
41	96	67	140
42	100	72	150
43	110	78	160
44	120	85	180
45	140	93	210
46	160	100	250
47	190	120	320
48	>190	120	-