RTA.KK.016 Revision Date/Revision No:-/- Issue Date:17.02.2014

# HYGISLIDE CHROMAGAR ECC/ CHROMAGAR ECC

#### PRINCIPLE AND INTERPRETATION:

**Side1/2:** Chromagar ECC: Chromogenic medium for the detection and enumeration of ß-glucuronidase positive E.coli and coliforms in food and water samples. Coliforms, Enterobacteriacae able to ferment lactose (lactose positive Enterobacteriacae), are bacteria present in human and warm blooded animals intestinal flora, in the soil and water. Coliforms are proof of organic, environmental or faecal contamination. Faecal contamination, due to coliforms coming from animal waste, consists mainly of Escherichia coli and thermotolerant Klebsiella. Strict regulations exist for E.coli/Coliform presence in water and food samples. This can be explained by the importance of these germs in determining water and food safety.

#### **COMPOSITION:**

#### **Chromagar ECC**

Ingredients	Gr/Liter
Peptone and yeast extract	8 gr
NaCl	5 gr
Chromogenic mix	4,8 gr
Agar	15 gr

 $pH: 7,2 \pm 0,2$ 

## **INSTRUCTIONS FOR USE:**

# **Testing Fluids:**

- 1. Mix liquid test sample.
- 2. Remove the paddle from the vial. Do not touch the agar surfaces.
- 3. Immerse the slide in the fluid to be tested for about 5-10 seconds. Alternatively expose the slide to a spray or running fluid so that the slide surfaces are covered.
- 4. Both agar surfaces must be completely contacted.
- 5. Allow excess fluid to drain off both paddle agar surfaces.
- 6. Replace the Slide into the tube and twist to tighten the cap. Label the tube with the identification label supplied. Incubate the slide as directed later.

## **Testing Surfaces:**

- 1. Remove the paddle from the vial. Do not touch the agar surfaces.
- 2. To assure an accurate area recovery, contact the paddle to 20<sup>2</sup>cm of the surface by contacting the surface twice in separate 10<sup>2</sup>cm areas.
- Replace the Slide into the tube and twist to tighten the cap. Label the tube with the identification label supplied. Incubate the slide as directed later.

## **QUALITY CONTROL:**

# 1.Sterility Control:

Incubation 2 d at 30-35°C and 3 d at 20-25°C: NO GROWTH

# 2.Phsical/Chemical Control

pH Apperance:

**Chromagar ECC:**  $7,2 \pm 0,2$  Amber

<sup>\*</sup>Formula adjusted, standardized to suit performance parameters



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#### **3.Microbiological Control:** Incubate at 35±2 °C tempereature for 24-48 hours.

## Side1/2: Chromagar ECC

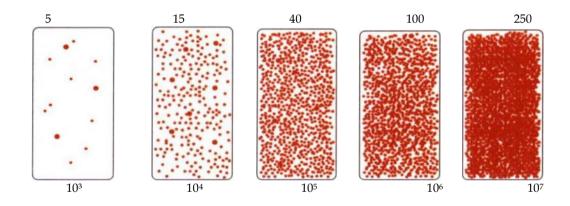
Microorganism	Inoculum	Results	
	(CFU)	Growth	Reaction
E.coli ATCC 25922	10-100	Growth	Blue
Citrobacter frendui ATCC 8090	10-100	Growth	Mauve
E.cloacae ATCC 43560	10-100	Growth	Mauve
E.aerogenes ATCC 13048	10-100	Growth	Mauve
K.pneumoniae ATCC 4352	10-100	Growth	Mauve
Staphylococcus aureus ATCC 25923	100-1000	Inhibition	-
Enterococcus faecalis ATCC 25212	100-1000	Inhibition	-

#### INTERPRETATION OF RESULTS

Compare the slide surfaces against the comparison chart printed below. Read the result corresponding to fluids or surfaces as appropriate. Note that very high levels of organisms could lead to a confluent growth and could be recorded as a nil result. Compare against an unused slide when reading results.

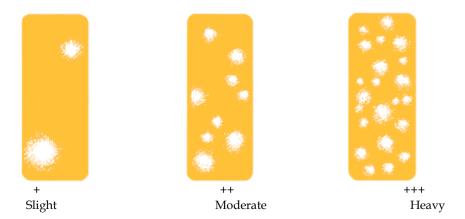
## **Bacteria Comparison Chart**

## Surfaces CFU/cm2



Fluids CFU/mL

## **Fungi Comparison Chart**





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#### **DISPOSAL:**

Incubated Slides may contain active bacteria and micro-organisms. Do not open infected slides except as part of disposal procedure. Infected slides should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

#### STORAGE CONDITIONS AND SHELF LIFE:

Slides should be stored in 2-20 °C. Temperature fluctuations may result in condensation settling at the bottom of the vial, although this does not affect culture properties, it could reduce the shelf-life or cause the agar to separate from the plastic paddle support.

Avoid sudden temperature changes. Shield from direct sunlight. Do not allow paddles to freeze. Do not use any slides which have been inadvertently contaminated during storage and which are already showing growth of micro-organisms

Use before expiry date on the label. Do not use beyond stated expiry date.

#### PACKAGING:

Katalog Number: 06004

Content/Packaging: 20 Slides/Box

#### REFERENCES:

- 1. Baird-Parker A. C. (1962) J. Appl. Bact. 25. 12-19.
- 2. Zebovitz E., Evans J. B. and Niven C. F. (1955) J. Bact. 70. 686-689.
- 3. Baird-Parker A. C. (1963) J. Gen. Microbiol. 30. 409-413.
- 4. Shaw S., Scott M. and Cowan T. (1957) J. Gen. Microbiol. 5. 1010-1023.

5-2005 Submitted to: International Association for Food Protection Publication Date: July 15, 2005 Citation: Bailey, J.S., Cray, P.J., Berrang, M.E., Plumblee, J. 2005. Comparison of petrifilm and chromagar ecc for isolation of e. coli from chicken [abstract]. International Association for

6-2001 2001, National Institute of Industrial Technology

7-1999 Alonso J. L. et al 1999. Applied and Environmental Microbiology, 65: 3746-3749.

8-A comparative study of selective media used to detect and confirm coliforms and Escherichia coli in water samples using membrane filtration 1995 1995. Abstract by Collyer J.

