

# Envirocheck® C Total Coliforms/*E. Coli*

Ordering number: 1.02136.0001

Our Envirocheck® dip slides, for semi-quantitative detection of microorganisms on surfaces and in liquids, are flexible paddles that are coated with different nutrient media. After sampling and incubation, the results of side A and side B allow any of five parameters to be determined, depending on the slide used. Envirocheck™ dip slides are available for a range of tests including *E. coli*, coliforms, yeast and molds, Enterobacteriaceae, Total Viable Count and disinfection control.

**Content: 10 slides/pack**

## Typical Composition

### Slide A

Coated with Plate Count Agar to obtain the total viable (aerobic) count.

### Slide B

Coated with Chromocult® Coliform Agar for the simultaneous detection of coliforms and *E. coli* in water and food-samples.

## Application and Interpretation

Envirocheck contact slides can be used for both surface and liquid testing.

Unscrew the cap and remove Envirocheck slide from the tube taking care not to touch the agar surfaces. Check for any dehydration or contamination before use.

### Surface testing

With two fingers hold the terminal end of the paddle against the surface to be tested. Press down on the spike to bend the paddle still holding the slide by the cap.

Press one medium against the surface to be tested. Take care not to smear the agar over the test area.

Repeat the procedure with the other side of the paddle on an area adjacent to the initial test site.

Put the slide back into the tube and close tightly.

### Liquid testing

Dip the Envirocheck slide for about 5 – 10 seconds into the test fluid. Both agar surfaces should become totally

covered. In case of insufficient liquid, pour over both surfaces of the slide. Tip the slide on a clean absorbent paper to drain any excess of fluid. Put the slide back into the tube and close tightly.

### Incubation

Incubate in upright position at 35-37°C for 24-48h hours. Check for growth after 24 and 48 hours.

### Interpretation of the results

Count the number of colonies on both sides of the paddle

#### Plate Count Agar:

Count the number of colonies for obtaining the total aerobic bacterial count (TVC).

#### Chromocult® Coliform Agar:

Count the number of dark-blue to violet colonies (*E. coli*) and the number of salmon to red colonies for other coliforms. Additionally, *E. coli* can be confirmed by adding KOVAC's Indole Reagent directly onto the colony (positive indole reaction: red color).

### Surface testing

The colony count on each agar side can be calculated into CFU per cm<sup>2</sup> as follows:

$$\text{CFU (actual count)} / 9.4 \text{ cm}^2 = \text{CFU/ cm}^2$$

Information on the recovery rates of dip slides for surface monitoring can be found at Salo et al

### Liquid testing

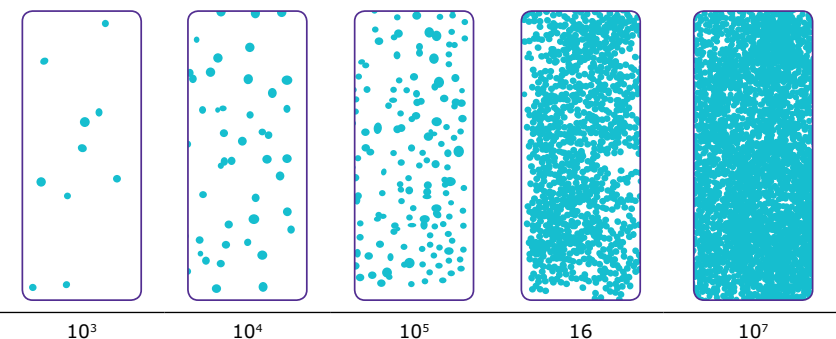
The density on each agar side can be compared to the model density chart.

## Typical Cultural Response

Organism	Plat Count-Agar	Chromocult® Coliform-Agar
<i>E. coli</i> , ATCC 11775	Good growth	Good growth colonies dark blue to violet; indole positive
<i>C. freundii</i> , ATCC 8090	Good growth	Good growth; colonies salmon to red
<i>E. coli</i> 0157: H7, ATCC 35150	Good growth	Fair/good growth; colonies salmon to red; indole positive
<i>S. enteritidis</i> , ATCC 13076	Good growth	Good growth; colorless colonies

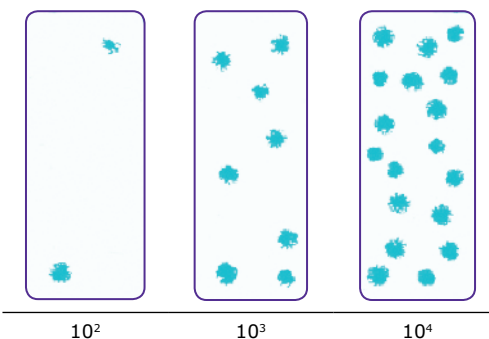
## Density Charts

Bacteria and Yeasts



CFU/ml, for liquids

Moulds



## Storage

Please store the product protected from light at 3 to 15°C and avoid freezing. Frozen agar shows a dimpled or fuzzy surface and cannot be used anymore.

Condensation can be prevented by avoiding quick temperature shifts and mechanical stress. Upon storage the dip slides should not be placed near heat sources such as refrigerators with heat-emitting condensers.

## Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.)

## References

Salo S, Laine A, Alanko T, Sjöberg A-M, Wirtanen G. Validation of the Microbiological Methods Hygicult Dipslide, Contact Plate, and Swabbing in Surface Hygiene Control: A Nordic Collaborative Study. *Journal of AOAC International* 2000; 83(6): 1357-1365.

Salo S, Alanko T, Sjöberg A-M, Wirtanen G. Validation of the Hygicult® E Dipslides Method in Surface Hygiene Control: A Nordic Collaborative Study. *Journal of AOAC International* 2002; 85(2): 388-394

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