

# Microbiology

## Envirocheck® Contact plates VRB agar (Violet Red Bile Agar) 1.18415.0020

- 55 mm Diameter plates
- Storage at +15°C to +25°C
- Reduced formation of condensation water
- Long shelf life - up to 9 month
- Single bagged

### Envirocheck® Contact plates VRB agar (Violet Red Bile Agar)

Envirocheck® Contact plates VRB agar are used to check for coliform bacteria including E.coli related to contaminations in the production process.

Crystal violet and bile salts inhibit growth primarily of the Gram-positive accompanying bacterial flora. Degradation of lactose to acid is indicated by the pH indicator neutral red, which changes its colour to red, and by precipitation of bile acids.

This medium complies with the recommendations of the American Public Health Association (2004) and ISO (2006)

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### Typical composition (g/l)

Peptone from meat 7.0; yeast extract 3.0; sodium chloride 5.0; lactose 10.0; neutral red 0.03; bile salt mixture 1.5; crystal violet 0.002; agar-agar 14.0.

pH: 7.4 ± 0.2 at 25 °C.

The appearance of the medium is clear and slightly reddish.

### Experimental Procedure and Evaluation

Open the outer wrapping.

- Take of the lid and press the convex agar for 10 seconds onto the surface to be investigated ensuring an even pressure (25g/cm<sup>2</sup>) over the whole plate. Replace the lid and mark the plate with appropriate data.
- Clean sample area on the surface in order to remove any remaining of the agar.

Count the number of typical colonies on the contact plates directly after specified incubation period and confirm these, if necessary, according to the micro organisms sought. Divide the number of characteristic colonies by the surface area of the plate. Report the count as a number of colony forming units (CFU) per square centimetre of surface (acc. to ISO18593)

| Appearance of Colonies                                          | Microorganisms                                                  |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| Red, surrounded by reddish precipitation zones, Diameter 1-2 mm | Lactose-positive Enterobacteriaceae: coliform bacteria, E. coli |
| Pink pin-point colonies                                         | Enterococci, possibly Klebsiella                                |
| Colourless                                                      | Lactose-negative Enterobacteriaceae                             |

### Shelf life in month

6 month

### Storage

+15°C to +25°C

### Ordering information

| Product                              | Merck Cat.No. | Pack size                 |
|--------------------------------------|---------------|---------------------------|
| Envirocheck® Contact plates VRB agar | 1.18415.0020  | 20 plates (2 x 10 plates) |

Merck KGaA

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## Quality control

| Test strains                                         | Recovery rate    |
|------------------------------------------------------|------------------|
| Escherichia coli ATCC 8739                           | ≥ 50             |
| Citrobacter freundii ATCC 8090                       | ≥ 50             |
| Test strains                                         | Growth           |
| Pseudomonas aeruginosa ATCC 9027                     | +                |
| Enterococcus faecalis ATCC 19433                     | inhibited        |
| <b>Microbial contamination; 4 days at 30 to 35°C</b> | <b>no growth</b> |

Incubation: 24 hrs. at 28° to 32°C aerobic.

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