Quick Guide

CheckN’Safe™ E.coli
355-4700/355-4720 • Escherichia coli analysis in recreational bathing waters (sea water, inland water)

Start

- Switch-on respectively the uninterruptible power source (UPS), then computer (printer if necessary) and finally the XplOrer64™ System

- Start the XplOrer64 Manager software by cliquing on its icon
- Menu Start, Start focused instrument
- Set the temperature of incubator(s) at 44°C and the measuring cycle on 10 minutes
  NB: Incubator A (top) will be preferentially used if Enterococci analyses are performed in parallel
- Warm-up the incubator(s) defined for 30 minutes

Routine Sample Preparation

- Prepare the necessary CheckN’Safe™ tests into a rack and keep them at ambient temperature at least 1 hr before use

- Prepare the necessary sterile caps and open the seals of CheckN’Safe
- Place a membrane filter composed of cellulose esters, diameter Ø 55 mm, nominal pore of 0.45 μm, on a membrane filters apparatus
- Filter 100 ml of sample

- Rinsing by filtration of 50-100 ml of sterile deionised or distilled water

- Using sterile tweezers, fold twice the membrane in a cone shape and inoculate it tip downside into the CheckN’Safe test
  NB: The entire membrane has to be immersed inside the culture medium broth. If necessary, rock the vial gently avoiding the formation of foam
- Add a sterile cap on each CheckN’Safe test

Sample Insertion

- Place CheckN’Safe E.coli into incubator(s) warm-up at 44°C
- Verify that each CheckN’Safe test is correctly inserted
- Warming-up of tests inserted start for 1 hr

Please read the instruction manual for complete and detailed instructions.
In the main window XplOrer64 Manager Measurement Parameters, select the option View and Parameters:

a. Select an Incubator to parameter and the position 1
b. Select an User

Select the ECOLI analysis (QC ECOLI calibration is dedicated for the internal monitoring of the culture medium performances)

Select a Classification for the results interpretation, according to the origin of the water sample and the directive to follow

Confirm rapidly these settings by clicking on the button

Fill up at minimum the INFO1 identification field. This step could be performed later at once for all samples, within the Edit table function of the Edit menu

Confirm these settings by clicking on the button

Close this window and confirm by Yes

To set a complete incubator: in the window XplOrer64 Manager Measurement Parameters, click into the Spot 1 with the mouse

In the menu, select Edit and Copy position parameter

Press simultaneously shift button on the keyboard and click into the Spot 31 (NB: spot 32 will be dedicated to the CheckN’Safe Temperature Control cell)

Edit and Insert all parameters

Edit and Clear copy/paste buffer to clear the buffer. Settings are therefore registered
• From the end of the warming-up, samples are analyzed in continue each 10 minutes, for 8 hrs

Approximative Detection Time:

<table>
<thead>
<tr>
<th>E. coli/100 ml</th>
<th>Detection time</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 41</td>
<td>≥ 8:00hr</td>
</tr>
<tr>
<td>100</td>
<td>6:30hr = 6:18min</td>
</tr>
<tr>
<td>250</td>
<td>5:55hr = 5:33min</td>
</tr>
<tr>
<td>500</td>
<td>5:09hr = 5:05min</td>
</tr>
<tr>
<td>1,000</td>
<td>4:69hr = 4:42min</td>
</tr>
<tr>
<td>1,800</td>
<td>4:39hr = 4:23min</td>
</tr>
<tr>
<td>2,000</td>
<td>4:34hr = 4:20min</td>
</tr>
<tr>
<td>Maximum: 1.59.10^9</td>
<td>0:1 hr = 6 min</td>
</tr>
</tbody>
</table>

• Real-time analysis moving forward can be followed at any times by simple observation of the spots:

<table>
<thead>
<tr>
<th>Spot appearance in XpiOre64 Manager</th>
<th>E. coli/100 ml</th>
<th>Water quality</th>
<th>Polluted water</th>
<th>Suspicious pollution</th>
<th>Good quality</th>
<th>Excellent quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>in real time...</td>
<td>≥ Imperative value</td>
<td>≥ Imperative value; guidance value</td>
<td>≤ Guidance value</td>
<td>&lt; Detection limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>at the end of analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Interpretation

<table>
<thead>
<tr>
<th>CheckN’Safe® E. coli analysis (in germs/100 ml)</th>
</tr>
</thead>
</table>

Positve Signal Confirmation

Rules to confirm a positive signal:

1 - The typical profil of the original impedance curve is a sigmoid curve, reaching the 3% threshold during the analysis

2 - This original curve has not to decrease before to reach the “stationnary” phase

3 - If the Td is determined within the 3 first hours of the cycle, the original curve has to reach its 3% threshold (discontinued yellow line) within 5 hrs. In this case, the software will automatically delete the measured points before these 3 hrs, and the result will be considered as negative

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