

BacterLab Division



Issue date: 15/04/2025

Version: 01.2025

## ENVIRONMENTAL SAMPLING SWABS

### SwabCollect™ Letheen Broth, 5 mL

SwabCollect™  
Letheen Broth

Microbial Sampling Tool for surface sampling, using a swab and a plastic tube containing Letheen Broth to neutralize the effects of disinfectants and protect microorganisms during transport and analysis.

Code: 4108015



## 1. INTENDED USE

**SwabCollect™ Letheen Broth, 5 mL** is designed for microbiological sampling from surfaces and hard-to-reach areas in food processing, healthcare, and pharmaceutical environments. The product aids in collecting samples from narrow or difficult-to-reach areas, ensuring that microorganisms are protected throughout the transport and analysis process. **Letheen Broth** is a nutrient-rich pre-enrichment medium that helps assess the effectiveness of disinfection processes, while maintaining the viability and stability of microorganisms during transport and analysis.

## 2. PRINCIPLES

**SwabCollect™ Letheen Broth, 5 mL** uses a swab combined with a plastic tube containing 5 mL of **Letheen Broth** to collect microorganisms from surfaces. **Letheen Broth** is a nutrient-rich medium containing lecithin and Tween 80. Lecithin neutralizes quaternary ammonium compounds, a key ingredient in disinfectants, ensuring that microorganisms are not affected by residual disinfectants on surfaces. Tween 80 neutralizes disinfectants such as phenol, hexachlorophene, and formalin, helping protect microorganisms from the effects of these chemicals. This process helps recover and maintain the stability of microorganisms in food processing environments, ensuring they remain viable during transport and analysis before being transferred to selective media without altering their characteristics.

## 3. TYPICAL COMPOSITION

### 3.1. Tools

- Sterile swab
- Sterile plastic tube, size 16 x 100 mm

### 3.2. Medium

- Volume of medium in the plastic tube: 5 mL
- Components of the medium:

*For 1 liter of medium*

|                           |        |
|---------------------------|--------|
| Casein peptone            | 5,0 g  |
| Beef extract              | 5,0 g  |
| Polysorbate 80 (Tween 80) | 5,0 g  |
| Lecithin                  | 0,7 g  |
| Meat peptone              | 20,0 g |
| Sodium bisulfite          | 0,1 g  |
| Sodium chloride           | 5,0 g  |
| Yeast extract             | 2,0 g  |

*pH of the ready-to-use medium at 25°C: 7,2 ± 0,2*

## 4. INSTRUCTIONS FOR USE

- Inspect the **SwabCollect™** product to ensure it is not damaged or contaminated during storage.
- Write the sample information on the pre-labeled sticker on the plastic tube containing the solution.
- Carefully open the cap of the solution tube to avoid contaminating the internal environment.
- Immerse the swab tip into the solution in the tube, ensuring the swab tip is completely moistened with the solution.
- Collect the sample by gently rubbing the swab on the area to be sampled. Be careful not to touch the swab tip with your hands.
- Insert the swab back into the tube containing the solution.
- Break off the excess swab tip to fit the tube.
- Close the plastic tube tightly to protect the sample and prevent contamination during transport.
- Transport the sample immediately to the laboratory to ensure the stability of the microorganisms, following sample storage guidelines..

## 5. QUALITY CONTROL

- **SwabCollect™ Lethen Broth, 5 mL** is produced in a closed environment, adhering to strict hygiene regulations. The plastic tube and swab are sterilized using gamma irradiation, ensuring no microorganisms affect the quality of the sample.
- **BacterLab** ensures the quality of each product batch of the medium by testing with ATCC reference strains.

| Reference strains                                     | Incubation conditions       | Expected results |
|-------------------------------------------------------|-----------------------------|------------------|
| <i>Escherichia coli</i> ATCC 25922 (WDCM 00013)       | 35 – 37°C for 24 – 48 hours | Good growth      |
| <i>Staphylococcus aureus</i> ATCC 25923 (WDCM 00034)  |                             | Good growth      |
| <i>Salmonella typhimurium</i> ATCC 14028 (WDCM 00031) |                             | Good growth      |

## 6. STORAGE AND TRANSPORT CONDITIONS

- Storage: 4 – 25°C.
- Transportation: Ambient temperature.

## 7. PACKAGING

- Packaging: 50 set/ box or customer request.

## 8. SHELF LIFE

- Expiration Date: 18 months from the manufacturing date.

## 9. BIBLIOGRAPHY

- FDA Bacteriological Analytical Manual (BAM) 1995. Microbiological Methods for cosmetics, Lethen Agar (modified), Lethen Broth (modified).