



  Environmental *Listeria* Test



# Product Instructions

## Environmental *Listeria* Test

### PRODUCT DESCRIPTION AND INTENDED USE

The 3M™ Environmental *Listeria* Test is an easy to use sampling and detection test kit for the detection of presumptive *Listeria* species in environmental samples. The 3M Environmental *Listeria* Test contains the 3M™ Enviro Swab and the 3M™ *Listeria* Broth. The 3M Environmental *Listeria* Test was designed to analyze environmental samples and to help increase the efficiency of monitoring plant sanitation. Many organisms in the environment can be stressed by environmental conditions or sanitizers. The 3M *Listeria* Broth contains antibiotics, growth enhancers and chromogenic indicators that facilitate detection. The growth enhancers provide recovery of sub-lethally injured *Listeria*, while antibiotics suppress the growth of non-*Listeria* microorganisms. Chromogenic compounds will turn the 3M *Listeria* Broth from yellow to brown or black in color by utilizing the enzyme  $\beta$ -glucosidase produced by *Listeria* species. The 3M Environmental *Listeria* Test detects the common *Listeria* species, consisting of *Listeria monocytogenes*, *L. innocua*, *L. ivanovii*, and *L. welshmeri*.

As with all *Listeria* testing methods, there are some risks associated with handling *Listeria* organisms. 3M assumes that the 3M Environmental *Listeria* Test will be utilized by technicians that have been properly trained to follow microbiological handling techniques.

3M has not documented the 3M Environmental *Listeria* Test for use in industries other than food and beverage. For example, 3M has not documented the 3M Environmental *Listeria* Test for testing water, pharmaceuticals or cosmetics. The 3M Environmental *Listeria* Test has not been evaluated with all possible surface areas or with all possible strains of bacteria.

Some non-*Listeria* organisms could result in presumptive false positive results. These organisms include *Enterococcus hirea*, *Enterococcus avium*, *Enterococcus faecalis*, and *Enterococcus gallinarum*. It is recommended that all presumptive positive results are confirmed using the preferred method or as specified by local regulators.

3M Food Safety is certified to ISO (International Organization for Standardization) 9001 for design and manufacturing.

### SAFETY

The user should read, understand, and follow all safety information in the instructions for the 3M Environmental *Listeria* Test. Retain the safety instructions for future reference.

**⚠ WARNING:** Indicates a hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.

**⚠ CAUTION:** Indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury and/or property damage.

### ⚠ WARNING

**Do not use the 3M Environmental *Listeria* Test in the diagnosis of conditions in humans or animals.**

**The 3M Environmental *Listeria* Test may generate *Listeria monocytogenes* to levels sufficient to cause stillbirths and fatalities in pregnant women and the immunocompromised, if exposed.**

**The user must train its personnel in current proper testing techniques: for example, Good Laboratory Practices or ISO/IEC 17025<sup>1</sup>.**

#### To reduce the risks associated with bacterial infection:

- It is strongly recommended that female laboratory staff be informed of the risk to a developing fetus resulting from infection of the mother through exposure to *Listeria monocytogenes*.
- Perform *Listeria* testing in a properly equipped laboratory under the control of a skilled microbiologist.
- Always follow standard lab safety practices, including wearing appropriate protective apparel while handling reagents and contaminated samples.
- Avoid contact with the contents of the 3M Enviro Swab.
- Dispose of contaminated 3M Enviro Swabs according to applicable Federal, State, and/or local government regulations and/or applicable laboratory procedures.

#### To reduce risks associated with workplace contamination:

- Perform *Listeria* testing in a properly equipped laboratory under the control of a skilled microbiologist.

### ⚠ CAUTION

To reduce the risks associated with misdiagnosis resulting in release of contaminated product:

- Use the 3M Environmental *Listeria* Test for environmental testing only.
- Use the 3M Environmental *Listeria* Test only with surfaces, sanitizers, protocols, and bacterial strains that you have validated.

Consult the Safety Data Sheet for additional information.

For information on documentation of product performance, visit our website at [www.3M.com/foodsafety](http://www.3M.com/foodsafety) or contact your local 3M representative or distributor.

## USER RESPONSIBILITY

Users are responsible for familiarizing themselves with product instructions and information. Visit our website at [www.3M.com/foodsafety](http://www.3M.com/foodsafety), or contact your local 3M representative or distributor for more information.

When selecting a test method, it is important to recognize that external factors such as sampling methods, testing protocols, sample preparation, handling, and laboratory technique may influence results. The environmental sample itself may influence results.

It is the user's responsibility in selecting any test method or product to evaluate a sufficient number of samples with the appropriate matrices and microbial challenges to satisfy the user that the chosen test method meets the user's criteria.

It is also the user's responsibility to determine that any test methods and results meet its customers' and suppliers' requirements.

As with any test method, results obtained from use of any 3M Food Safety product do not constitute a guarantee of the quality of the matrices or processes tested.

## LIMITATION OF WARRANTIES / LIMITED REMEDY

EXCEPT AS EXPRESSLY STATED IN A LIMITED WARRANTY SECTION OF INDIVIDUAL PRODUCT PACKAGING, 3M DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. If any 3M Food Safety Product is defective, 3M or its authorized distributor will, at its option, replace or refund the purchase price of the product. These are your exclusive remedies. You must promptly notify 3M within sixty days of discovery of any suspected defects in a product and return it to 3M. Please call Customer Service (1-800-328-1671 in the U.S.) or your official 3M Food Safety representative for a Returned Goods Authorization.

## LIMITATION OF 3M LIABILITY

3M WILL NOT BE LIABLE FOR ANY LOSS OR DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS. In no event shall 3M's liability under any legal theory exceed the purchase price of the product alleged to be defective.

## STORAGE

Store the 3M Environmental *Listeria* Test at 2-8°C. Do not freeze. Keep kit away from light during storage. Do not use 3M *Listeria* Broth that shows brown to dark coloration. Do not use 3M Environmental *Listeria* Test past its expiration date. Expiration date and lot number are noted on the outside label of the box.

## ⚠ DISPOSAL

After use, the 3M Enviro Swab may contain pathogenic microorganisms. When testing is complete, follow current industry standards for the disposal of contaminated waste. Consult the Safety Data Sheet for additional information and local regulations for disposal.

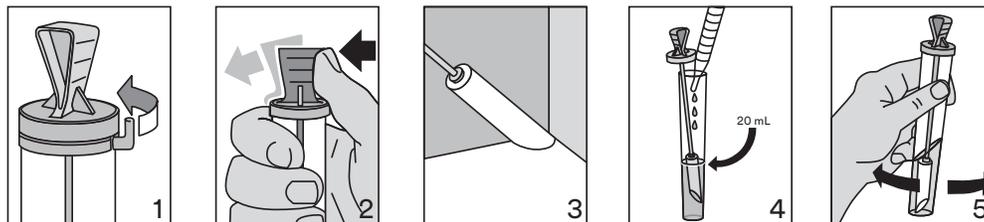
## INSTRUCTIONS FOR USE

Follow all instructions carefully. Failure to do so may lead to inaccurate results.

### Sample Collection

Use a fresh 3M Enviro Swab for each sample area.

1. Label the 3M Enviro Swab with sample identification.
2. Remove the tab from the top of the 3M Enviro Swab (Figure 1).
3. Hold the tube firmly in one hand and release the swab by pushing the top of the tube with your thumb (Figure 2).
4. Swab across the entire sampling surface several times, typically over a 4" x 4" (10 cm x 10 cm) area (Figure 3).
5. Replace the swab in its tube.



### Adding the 3M *Listeria* Broth

1. Remove the cap from one 20 mL vial of 3M *Listeria* Broth.
2. Carefully lift the swab from its tube and aseptically pour the broth into the 3M Enviro Swab tube. The broth should completely cover the foam head of the swab (Figure 4).
3. Push the swab firmly back into the tube to lock the cap. Mix well by vortexing or shaking (Figure 5).
4. Incubate the 3M Enviro Swab with broth in an upright position at  $37 \pm 1^\circ\text{C}$  for 30-48 hours.

It is recommended that a negative control be run each time a set of environmental samples is analyzed. The negative control can be set up by adding the content of one 3M *Listeria* Broth vial to an unused 3M Enviro Swab and incubating alongside the test samples.

### INTERPRETATION

A presumptive positive result for *Listeria* species is defined as any brown to black coloration, after 30-48 hours of incubation at  $37 \pm 1^\circ\text{C}$ . A negative result is indicated by an amber color (i.e. no change from the uninoculated broth). Presumptive positive can be read as early as 30 hours. Results cannot be considered negative until samples have been incubated for 48 hours. Presumptive positive results should be confirmed using your preferred method or as specified by local regulations.

For further information refer to the 3M™ Environmental *Listeria* Test “Interpretation Guide.” If you have questions about specific applications or procedures, please visit our website at [www.3M.com/foodsafety](http://www.3M.com/foodsafety) or contact your local 3M representative or distributor.

### REFERENCES

1. ISO/IEC 17025. General requirements for the competence of testing and calibration laboratories.

Refer to the current versions of the standard methods listed above.

### EXPLANATION OF SYMBOLS

[www.3M.com/foodsafety/symbols](http://www.3M.com/foodsafety/symbols)

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