

Micro-Snap™ ENRICHMENT SWAB

Catalog No. ES-EE-100 / Enrichment device for Enterobacteriaceae, Coliforms and E. coli

For use with Hygiena Luminometers

For Investigational Use only



This is used along with the following:

Cat No. MS-EN-100: Detection device for Enterobacteriaceae

Cat No. MS-CC-100: Detection device for Coliforms

Cat No. MS-EC-100: Detection device for E. Coli.

Cat No. EB-EE-100: Enrichment Broth 2ml

Each device (Enrichment and Detection) is sold separately in packages containing 100 devices.

Description and Intended use

Description and intended use:

The Enrichment Swab is a device containing culture media to promote growth of bacteria for the Micro-Snap assay which is a rapid bioluminescent method for determination of Enterobacteriaceae and specific determination of Escherichia coli in less than 8 hours from surface samples, food samples and filterable liquids eliminating the need for further confirmation.

Principle

The assay requires 2 self-contained tube devices that are used in a 2 step procedure. Device 1 is the Enrichment device (same device is used for Enterobacteriaceae, Coliforms and E. Coli test). Device 2 is the Detection device. MS-EN is used for Enterobacteriaceae, MS-CC is used for Coliforms and MS-EC is used for E. Coli test.

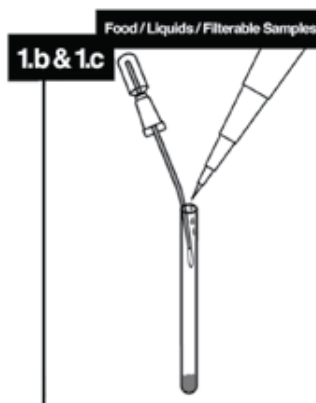
STEP 1: The culture media in Device 1 (ENRICHMENT DEVICE) is inoculated with the sample to be tested and incubated at $37^{\circ} \pm 1^{\circ}\text{C}$ for up to 8 hours.

STEP 2: An aliquot of the incubated sample is manually transferred to Device 2 (DETECTION DEVICE) and the enzymatic action on the substrates is measured via bioluminescence on the Hygiena ENSURE luminometer. 1 bacterium per mL will create sufficient enzymatic activity if grown for 7 hours at $37^{\circ} \pm 1^{\circ}\text{C}$. A threshold level of activity has been set at 10 RLUs (Relative Light Units). If 7 hours incubation cannot be achieved prior to the DETECTION Step 2, then samples can be left to incubate longer or overnight without impairment of result.

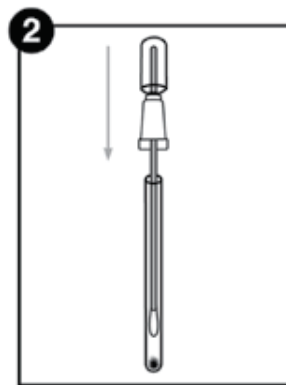
Test Procedure:



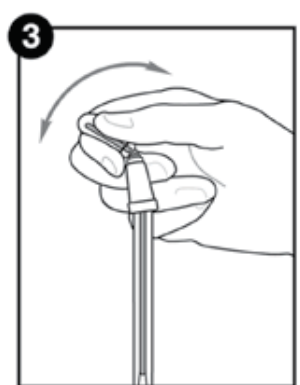
1.a. Swab a 10x10cm area or larger depending on protocol



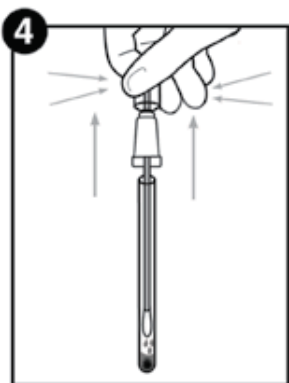
1.b. 1ml liquid food, beverage or water sample added directly to *Enrichment Swab*.
1.c. 1ml 10% food homogenate added directly to *Enrichment Swab*.



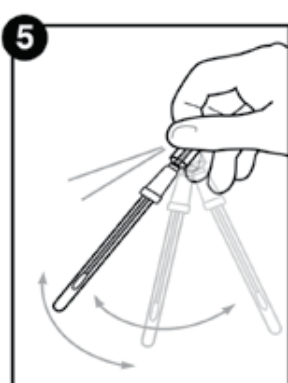
2. Reinsert Snap-Valve bulb into swab tube.



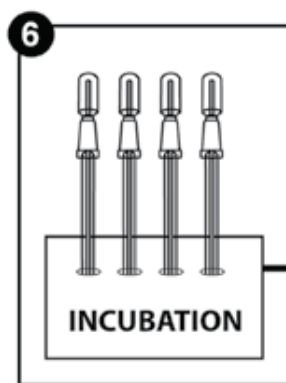
3. Bend Bulb, snapping the Snap-Valve rod.



4. Lift the bulb up (about 1 – 2") and squeeze the bulb to release the liquid into tube. Release pressure from the bulb (the bulb is like a dropper bulb) and replace bulb in the tube. Most liquid should be in the bottom of tube.



5. Shake the tube gently to mix sample in the liquid.



6. Incubate at $37^{\circ} \pm 1^{\circ}\text{C}$ for the required time to detect contamination based on the expected inoculum size shown in Table 1 on the other side of this page.

7. Use enriched sample with detection devices:
MS-EN-100 *As required
MS-CC-100 *As required
MS-EC-100 *As required
*Refer to insert

Micro-Snap™ ENRICHMENT SWAB ES-EE

Inoculum Time Table 1

Initial Inoculum range	Minimum Incubation time required at 37°C In hours
1-5	7
10	6
100	5
1000	4
10000	3
100000	2
500000	1

Test Procedure Text

1. Collect sample and place in the Enrichment swab.
2. Samples can be the following
 - a. Surface Swabs (typically 4 x 4 inches; 10 x 10 cm)
 - b. 1mL liquid food, beverage or water samples added directly to ENRICHMENT SWAB
 - c. 1mL 10% food homogenate added directly to ENRICHMENT SWAB
3. Activate device by breaking the snap valve by bending the bulb. .
4. Lift the bulb up (about 1 – 2”) and squeeze the bulb to release the liquid into tube. Release pressure from the bulb (the bulb is like a dropper bulb) and replace bulb in the tube.
5. Shake the tube gently to mix sample in the liquid.
6. Incubate at 37° ± 1°C for the required time to detect contamination based on the expected inoculum size shown in Table 1
7. Incubated sample from the Enrichment device (or petri dish, see special sample preparation below) is transferred into detection device of choice to complete testing. Refer to insert in Detection device kits.

Liquid Filterable Sample Preparation

Use filters of diameter of 25mm and/or 47mm. Aseptically Remove the filter after filtration and place it in a sterile 47mm petri-dish. Add 2mL of Enrichment media from Enrichment Broth vial (EB-EE) to the petri-dish. The petri-dish is then incubated at 37° ± 1°C for up to 8 hours.

Safety Precautions:

Components of Enrichment Swab devices do not pose any health risk when used correctly. Used devices that confirm positive results may be bio hazardous and should be disposed off safely in compliance with Good Laboratory Practice and Health and Safety regulations.

1. Devices are designed for a single use. Do not reuse.
2. Do not use devices after Expiration date.
3. Sampling should be done aseptically, to avoid cross contamination.
4. Ensure proper incubation temperature and time for your application.
5. When activating devices, ensure that the liquid in the bulb is transferred to the tube below.

Material and Reagents Required But Not Provided

Sample preparation equipment and diluents.

Recommended Diluents for product samples:

- Buffered Peptone Water
- Butterfields
- Maximum Recovery Diluent
- Other validated diluents of users choice

Storage & Shelf Life:

Store bags of devices at 2-8°C

Devices have a shelf life of 12 months. Check expiration date on label.

Caution and User Responsibility:

1. Micro-Snap devices have not been tested with all possible food products, food processes, testing protocols or with all possible strains of the Enterobacteriaceae family.
2. Do not use this test in the diagnosis of conditions in humans and animals.
3. No single culture medium will always recover the exact same strains or enumerate a particular strain exactly as another medium. Other external factors such as sampling method, testing protocol and handling may influence recovery.
4. It is the user’s responsibility in selecting a test method to evaluate a sufficient number of samples of particular foods and microbial challenges to satisfy the user that the chosen method meets the user’s criteria.
5. As with any culture medium, Micro-Snap results do not constitute a guarantee of quality of food, beverage products or processes that are tested with these devices.
6. The user must train personnel in proper testing techniques.

Hygiene Liability:

Hygiene will not be liable to user or others for any loss or damage whether direct or indirect, incidental or consequential from use of this device. If this product is proven to be defective, Hygiene’s sole obligation will be to replace product or at its discretion, refund the purchase price. Promptly notify Hygiene within 5 days of discovery of any suspected defect and return product to Hygiene. Please call Customer Service for a Returned Goods Authorization.

Contact Information:

If more information is required, please visit us at www.hygiene.net or contact us at:

Hygiene USA
941 Avenida Acaso
Camarillo, CA 93012
Phone: 805.388.8007
Fax: 805.388.5531
Email: enquiries@hygiene.net

Hygiene International
Unit 11 Wenta Business Centre
Colne Way Watford
Hertfordshire WD24 7ND UK
Phone: +44 (0)1923 818821
Fax: +44 (0)1923 818825
Email: enquiries@hygiene.net



T: 02 8212 4074 F: 02 9423 6992
www.keydiagnostics.com.au
E: infokeydiagnostics.com.au
PO Box 1038 Gymea NSW 2227