



HiEnviro-Sponge™ Hydrated w/10ml Neutralizing Buffer w/ gloves, sterile

ESM004A

Intended Use

Recommended for microbiological sample collection from food processing equipment and other environmental surfaces where neutralization of residues of disinfectants is required which have antimicrobial activity.

Composition

Ingredients	g / L
Potassium dihydrogen phosphate	0.0425
Sodium thiosulphate	0.160
Neutralizing compound	5.009
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

1. To label write on the white print area of the sampling bag.
2. Tear off the top of the bag along the tear line and pull the tabs to open the bag.
3. Guide the sponge out from the top of the bag (wear sterile hand gloves and do not touch the internal surfaces of the bag).
4. Sample the area by ensuring the entire sponge makes full contact with the surface.
5. Transfer the sponge inside the bag.
6. By holding the taped wires roll the bag appropriately and close the bag by folding the taped wires.
7. Incubate the sampled bag at 35 -37°C for 18-24hours.

Principle And Interpretation

Neutralizing buffers are used in the examination of dairy and food equipments for possible contamination of microorganisms. The buffer is generally used to inactivate the bactericidal and bacteriostatic effect of chlorine and quaternary ammonium compounds. It is also recommended by APHA for use in the microbiological examination of surfaces (1,2). Potassium dihydrogen phosphate buffers the medium well. The neutralizing compound neutralizes the effect of quaternary ammonium compounds while sodium thiosulphate inactivates the effect of chlorine compounds.

Type of specimen

Environmental samples, food industry samples

Specimen Collection and Handling

For environmental samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (3,4) (Follow directions) . After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

Read the label before opening the container. Wear protective gloves / protective clothing / eye protection / face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement or observation.
2. Individual strain of a microorganism may have unique growth requirements with respect to nutrients and physical conditions. Based on which the growth pattern of each varies on a medium and some even may display significant delay.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality control

Appearance

Sterile HiEnviro-Sponge™ (Cellulose sponge) Hydrated w/10ml Neutralizing Buffer Broth w/ gloves in wired sampling bag

pH

7.2 ± 0.2

Dose of Irradiation (kGy)

> 25 kGy

Sterility check

Aseptically open the sampling bag containing the sponge. Add 100ml Sterile Soyabean Casein Digest Medium (LQ027) in bag and incubate at 30-35°C for 14 days. Check the bag for turbidity.

Biocide activity of sponge

Not detected

Cultural Response

Check for recovery of low CFU Organisms (~10 CFU/ml), inoculated on hydrated sponge w/ 10ml Neutralizing Broth with hold time of 1 hr ± 15 mins at 20-25°C. Further enrichment in Soyabean Casein Digest Medium is carried out with incubation at 30-35°C for 18-24 hrs, followed by recovery on Selective media.

Organism	Growth
<i>Escherichia coli</i> ATCC 25922 (00013*)	good-luxuriant (Recovery on MacConkey Agar, MP081)
<i>Salmonella</i> Typhimurium ATCC 14028 (00031*)	good-luxuriant (Recovery on XLD Agar, MP031I)
<i>Listeria monocytogenes</i> ATCC 19111 (00020*)	good-luxuriant (Recovery on HiCrome™ Listeria Ottaviani-Agosti Agar Base, M1540I)

Key : (*) Corresponding WDCM numbers.

Storage and Shelf life

Store between 15-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

- 1.Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
- 2.Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed.,APHA Inc., Washington, D.C.
- 3.Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
- 4.Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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Disclaimer :

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