SurfACE™ Sampling Solutions in Food Production

Easy-to-use, sterile specimen collection and surface sampling kits for quality control and identification of hazards at critical control points in food production.

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Romer Labs®
Making the World's Food Safer

The environment is a principal source of microbiological contamination within a food processing facility. Environmental testing is therefore a crucial part of any food safety program. With a strong focus on environmental testing, Romer Labs provides a broad range of sampling solutions covering **food production**.

Surface Sampling for Food Production Applications

Dry and pre-moistened sterile cellulose sponges and fabric swabs are ready-to-use products that comply fully with ISO 18593:2018 and ISO 17604:2015. They eliminate the costly and time-consuming steps of diluent preparation, sterilization and application to the sampling devices. They are designed to make it more convenient to sample microbes from surfaces in food processing facilities and industrial settings. The use of different pre-moistening solutions enables a broad range of environmental and product (carcass) sampling applications.

Available pre-moistening solutions:

Dey-Engley Neutralizing Broth (DE) – DE neutralizing broth assists in the recovery of micro-organisms in samples taken from surfaces exposed to sanitizing agents. It neutralizes the bactericidal and bacteriostatic effects of sanitizing agents such as chlorine, quaternary ammonium compounds, iodine, phenolics, mercurials, formaldehyde and glutaraldehyde. The medium also contains nutritive agents that aid in recovering and promoting the growth of microorganisms. Bromocresol purple is present in the broth as a colorimetric indicator.

Neutralizing Buffer (NB) – The neutralizing buffer assists in the recovery of microorganisms in samples taken from surfaces exposed to sanitizing agents. Of a different color than DE neutralizing broth, it offers the same neutralizing effect but does not include nutrition for the growth of microorganisms. It is therefore classified as a buffer instead of a broth.

Buffered Peptone Water (BPW) – Buffered Peptone Water is a pre-enrichment medium useful in isolating *Salmonella* from foods. During many food processes, *Salmonella* and other species can suffer sub-lethal injury from processes involving heat, desiccation, preservatives, pH changes or osmotic pressure shifts. BPW has been shown to facilitate resuscitation of stressed cells and is recommend in the ISO 18593 (Microbiology of the food chain — Horizontal methods for surface sampling) as a moistening solution sampling devices for the recovery of microorganisms from surfaces.

Letheen Broth (LB) – Letheen broth is a highly nutritional medium that contains lecithin and Tween 80. It is used for testing the efficacy of sanitizing protocols as lecithin neutralizes quaternary ammonium compounds while Tween 80 neutralizes phenols, hexachlorophene and formalin.

Maximum Recovery Diluent (MRD) – Maximum Recovery Diluent is formulated as recommended by ISO 18593 for use as a diluent for general purpose. It is also known as Peptone salt solution (0.1% Peptone, 0.85% NaCl).

Saline (0.9% NaCl) – Normal saline is a general purpose diluent, free of animal-derived ingredients.

Romer Labs SurfACE™ Sampling Buffers

Ingredient [g/L]	MRD	NB	LB	DE	BPW	Saline
Bromocresol purple				0.02		
Casein digest			10	5		
Dextrose				10		
Beef Extract			5			
Lecithin		7	0.7	7		
Neutral Peptone	1				10	
Polysorbate 80 (Tween 80)		5	5	5		
Potassium phosphate dibasic		8.5			1.5	
Sodium Bisulfite		1.25		2.5		
Sodium Bicarbonate						
Sodium Chloride	8.5		5		5	9
Sodium Phosphate di-basic		3			3.5	
Sodium Thioglycolate		1		1		
Sodium Thiosulfate		6		6		
Yeast Extract				2.5		

MRD: Maximum Recovery Diluent

NB: Neutralizing Buffer

LB: Letheen Broth

DE: Dey-Engley Neutralizing Broth

BPW: Buffered Peptone Water

Sponge-Stick

- In individual 14.5 x 30 cm (5.5 x 12“) Twirl-Tie™ bag
- 7.5 x 4 cm (3 x 1.5“) biocide-free cellulose sponge
- Sponge dry or pre-moistened
- Perfectly suited to sample gaps, drains and pipes
- Bags easily opened with attached pull tabs
- Label area for sample identification
- Fast, easy-to-use sponge release mechanism
- Thumb stop helps avoid accidental sponge contact
- Long stick (22 cm, 8.5“) for hard-to-reach surfaces
- Easy-to-spot petrol-blue-colored stick
- Less plastic used in production; stick is made of recyclable material (polypropylene, PP)
- No potentially toxic glues used to affix sponge to stick
- Hard plastics with potential to damage bag during transport eliminated
- Compatible with existing extendable poles
- Patent No: US D996,760 S

Procedure:

Label the bag in the white area. Ballpoint pens can be used. This sampling procedure does not require gloves!

Tear bag open by removing the tab. As an added safety measure, the tab is green-striped, making it easy to spot if lost.

Return the stick to the bag, taking care to insert it no deeper than the thumb-stop.

Pull the sponge off the stick by grasping it from outside the bag. For best results, pull from the middle of the fork-like end, using your thumb and index finger to move the sponge back and forth until it gently releases from the stick.

Package Size	Description	Item No.
100	Sponge-Stick with Neutralizing Buffer, in Twirl-Tie™ Bag	10006872
100	Sponge-Stick with Dey-Engley Neutralizing Broth, in Twirl-Tie™ Bag	10006870
100	Sponge-Stick with Letheen Broth, in Twirl-Tie™ Bag	10005425
100	Sponge-Stick with Buffered Peptone Water, in Twirl-Tie™ Bag	10006950
100	Sponge-Stick with Saline (0.9% NaCl), in Twirl-Tie™ Bag	10004593
100	Sponge-Stick, Dry, in Twirl-Tie™ Bag	10006952

Pull the bag down from the outside to release the stick. Do not touch the stick lower than the thumb stop in the middle or the inner surface of the bag.

Collect the sample by vigorously rubbing sponge on target area (e.g. 30 x 30 cm, 1 x 1 ft). Sponge-sticks are not recommended for the sampling of rough surfaces, as friction might cause the sponge to be released from the stick.

Use the attached tie to close the Twirl-Tie™ bag by rolling the opening of the bag and then kinking the tie to the inner side.

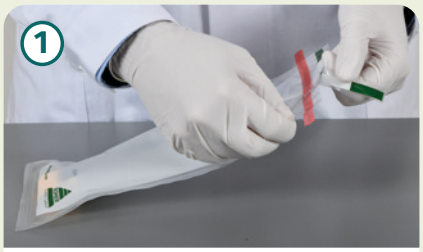
Sponge

- In Twirl-Tie™ bag
- 3“ x 1.5“ (7.5 x 3.5 cm) biocide-free cellulose sponge
- Available dry or pre-moistened with 10 ml buffer
- Bags can be opened easily with attached pull tabs
- Label area for sample identification
- Irradiated for proven sterility

Sponge in Vial

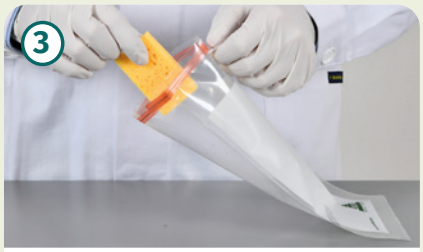
- 3“ x 1.5“ (7.5 x 3.5 cm) biocide-free cellulose sponge
- Pre-moistened with 10 ml buffer
- In a 120 ml plastic screw-cap vial
- Label attached for sample identification

Procedure:



Open bag or vial and remove sponge with gloved hand.

Collect sample by vigorously rubbing sponge on targeted area (e.g. 30 x 30 cm, 1 x 1 ft.). Sponges are better suited for the sampling of rough surfaces.



Put sponge into the sterile sample bag (or back into the vial) and label bag with sample details. Always switch gloves between sampling sites.

Package Size	Description	Item No.
200	Sponge with Neutralizing Buffer, in Twirl-Tie™ Bag	10006871
200	Sponge with Dey-Engley Neutralizing Broth, in Twirl-Tie™ Bag	10006951
200	Sponge with Letheen Broth, in Twirl-Tie™ Bag Tie™ Bag	10006955
200	Sponge with Buffered Peptone Water, in Twirl-Tie™ Bag	10004594
200	Sponge with Saline (0.9% NaCl), in Twirl-Tie™ Bag	10005426
250	Sponge, Dry, in Twirl-Tie™ Bag	10006301
98	Sponge with Letheen Broth, in Vial	10004592*

*other buffers could be made available on request, depending on quantities

Fabric Swab

- 28 x 35 cm, ≥ 900 cm²
- Biocide-free blue cloth, pre-moistened with 10 ml buffer
- In 55 oz.; 7.5 x 12“ (19 x 30 cm) Twirl-Tie™ bag
- Bags can be opened easily with attached pull-tabs
- Label area for sample identification
- Irradiated for proven sterility

Procedure:

Open the bag and remove fabric swab with gloved hand.

Collect sample by vigorously rubbing sponge on targeted area (e.g. 30 x 30 cm, 1 x 1 ft.).

Put the swab into the sterile Twirl-Tie™ bag and label bag with sample details. Always switch gloves between sampling sites.

Close the Twirl-Tie™ bag with the wires attached.

Package Size	Description	Item No.
200	Fabric Swab with Buffered Peptone Water, in Twirl-Tie™ Bag	10007109
200	Fabric Swab with Maximum Recovery Diluent, in Twirl-Tie™ Bag	10004589
200	Fabric Swab with Neutralizing Buffer, in Twirl-Tie™ Bag	10006188
200	Fabric Swab, Dry, in Twirl-Tie™ Bag	10006534

Miscellaneous Environmental Sampling Products

Sterile Gloves

- In convenient tear-open plastic pouch
- Packaged as a pair of gloves per pouch
- Irradiated for proven sterility

Sterile Sampling Bag

- Sterile 18 oz (0.5 L) and 24 oz (0.7 L) bags
- Twirl-Tie™ style sample bags
- Label area for sample identification
- Bags can be opened easily with attached pull tabs
- Sterile manufactured

Sterile Carcass Sampling Template

- 100 square cm (10 x 10 cm) or 50 square cm (10 x 5 cm)
- For carcass or surface sampling
- Made of rigid paperboard to withstand vigorous use
- Packaged in an easy-to-open plastic bag
- Irradiated for proven sterility

Package Size	Description	Item No.
100	Sterile Sampling Template, 100 cm^2	10003780
100	Sterile Sampling Template, 50 cm^2	10003786
50 pairs	Sterile Gloves, Size XL, Pair	20000603
100	Twirl-Tie™ Sterile Sample Bag, 18 oz. (0.5 L), with Wire Closure	10001883
100	Twirl-Tie™ Sterile Sample Bag, 24 oz. (0.7 L), with Wire Closure	10001884

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