

SurfACE[™] Sampling Solutions in Food Production





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**.

Environmental and Surface Sampling for Food Production Applications

Dry and pre-moistened sterile cellulose sponges and fabric swab are convenient, ready-to-use products. 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 microorganisms 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 from 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).

Romer Labs SurfACE™ Sampling Buffers

Ingredient [g/L]	MRD	NB	LB	DE	BPW
Bromocresol purple				0.04	
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		8	1.5
Sodium Bisulfite		1.25		2.5	
Sodium Bicarbonate					
Sodium Chloride	8.5		5		5
Sodium Phosphate di-basic		3		4	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

- Sponge-Stick placed in unique Twirl-Tie™ bag
- 3" x 1.5" (7.5 x 3.5 cm) biocide-free cellulose sponge
- Unique, quick sponge-release handle for fast and convenient sponge release
- Thumb stop included to avoid accidental sponge contact
- No gloves needed
- Perfectly suited to sample in gaps, drains and pipes
- 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



Procedure:



Tear bag and remove sponge handle.



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



Release sponge from the quick release handle into the Twirl-Tie TM bag provided, by pulling the clip back.



Close the Twirl-Tie $^{\text{TM}}$ bag with the wires attached and label it. No gloves needed.

Package Size	Description	Item No.
	Pre-moistened with 10 ml	In Twirl-Tie™ bag
75	Neutralizing buffer (NB)	10006157
75	Dey-Engley neutralizing broth (DE)	10006265
75	Letheen broth (LB)	10006298
75	Buffered peptone water (BPW)	10006267
75	Dry	10006300

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. 30×30 cm, 1×1 ft.).



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.		
	Sponge pre-moistened with 10 ml of:	Sponge in Twirl-Tie™ bag	Sponge in Vial	
100	Neutralizing buffer (NB)	10006293		
100	Dey-Engley neutralizing broth (DE)	10006264		
100	Letheen broth (LB)	10006299	10004592*	
100	Buffered peptone water (BPW)	10006266		
100	0.9 % NaCl	10006493		
250	Dry	10006301		

^{*}other buffers available on request depending on quantities

Fabric Swab

- 28 x 32 cm blue biocide-free fabric swab (swab 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. 30×30 cm, 1×1 ft.).



Put the swab into the sterile Twirl-Tie $^{\text{TM}}$ bag and label bag with sample details. Always switch gloves between sampling sites.



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

Fabric Swabs (according to EU Commission Regulation, 28 x 35 cm, ≥ 900 cm²) in 55 oz. (1.62 L) Twirl-Tie[™] bag, sterile 7.5" x 12" (19 x 30 cm)

Package Size	Description	Item No.
200	Fabric Swab pre-moistened with MRD	10004589
200	Fabric swab pre-moistened with Neutralizing buffer (NB)	10006188
200	Fabric Swab Dry	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), 24 oz (0.7 L) and 55 oz (1.62 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	100 cm² template packaged in re-closable bag	10003780
100	50 cm² template packaged in re-closable bag	10003786
50 pairs	Co-polymer gloves size XL packaged in peel open pouch	10002795
100	18 oz. (0.5 L) Twirl-Tie [™] bag, sterile 4.5" \times 9"	10001883
100	24 oz. (0.7 L) Twirl-Tie [™] bag, sterile 5.5" \times 9"	10001884
500	55 oz. (1.62 L) Twirl-Tie [™] bag, sterile 7.5" x 12"	10001886

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