



**Monterey County Health Department  
Consolidated Environmental Laboratory**  
1270 Natividad Rd., Rm. 118  
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**ENVIRONMENTAL SURFACE SWABS FOR STANDARD PLATE COUNT**

**PURPOSE:** Enumeration of bacteria on environmental surfaces is a tool for assessment of sanitary conditions and process control (e.g. disinfection). Standardized protocols for sample collection allow comparisons between different surfaces, or the same surface at different times. In general, the number of bacteria cultured is inversely proportional to sanitary condition.

**SAMPLE COLLECTION:** Generally, five representative areas should be swabbed from each surface evaluated.

1. Open the sterile swab wrapping and grasping the end of the shaft, remove the swab aseptically; *be careful not to touch any portion of the swab that may be inserted into the collection tube.* Open the sample container containing rinse solution, moisten the swab head, and press out the excess fluid against the inside surface of the container with a rotating motion.
2. Rub the swab head slowly and thoroughly over approximately 50 cm<sup>2</sup> surface; swab the same area a second and third time rotating the direction of swabbing 45° each time (see figure on reverse).
3. Return the swab head to the solution vial, rinse briefly in the solution, then press out the excess.
4. Repeat steps 2 and 3 on four more 50 cm<sup>2</sup> areas of the surface being evaluated, rinsing the swab in the fluid after each swabbing, and removing the excess.
5. After the areas have been swabbed, position the swab head in the vial, and break the end, leaving the swab head in the vial. Replace the screw cap and label the container with the sample identification, date of collection.
6. Complete the laboratory form including mailing address, name of sample collector, well number, description of sample point, date and time of collection, and test ordered (i.e. "Standard Plate Count").

**CARE OF SAMPLE**

Samples may be delivered directly to the laboratory or at one of the following health department offices:

Monterey Co. Environmental Health  
1200 Aguajito Rd.  
Monterey, CA  
831-647-7654  
Monterey - Drop off by 10:00 a.m.

Monterey Co. Environmental Health  
200 Broadway St. Suite 70  
King City, CA  
831-386-6899  
King City – Drop off by 10:00 a.m.

## FEE FOR TESTING

The current fee for quantitative environmental surfaces is \$29.00. If you do not have an account with our laboratory, you must pay in advance for this testing. Clients who have an account will be billed at the end of the month that you receive your results.

## INTERPRETATION OF RESULTS

The levels of microorganisms present will depend on the nature of the surface swabbed. Elevated moisture content, reduced exposure to sunlight (i.e. UV irradiation), and organic substrates enhance the survival and growth of microbes. Generally, the levels of microorganisms on a clean, dry, solid surfaces will not exceed more than a few colonies per 50 cm<sup>2</sup>. As a guide, the U.S. Public Health Services recommends that adequately cleaned and sanitized food service equipment have no more than 100 colonies per utensil or surface area of equipment sampled.

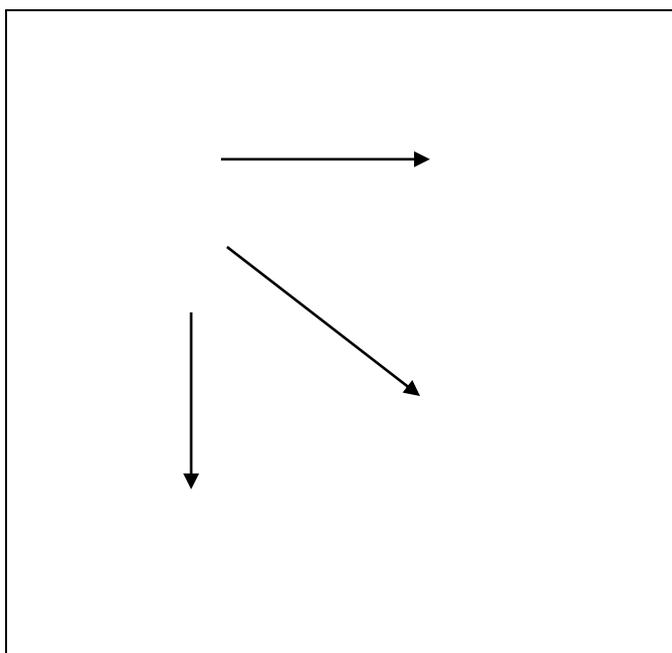


Figure 1. Swab an area 50 cm<sup>2</sup> (the size above) in three directions, changing direction of swabbing 45° each time to thoroughly cover the area. Rinse the swab in collection fluid and repeat this process using the same swab and collection fluid for five random areas on each surface to be evaluated.

### Contents of Kit:

1. 5ml of 0.5% Tween-80 Buffered Dilution Water
2. Chain of Custody
3. Sterile swabs (Dacron tip/plastic shaft)