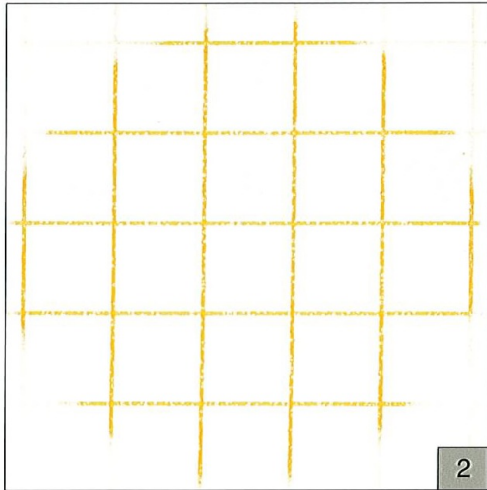
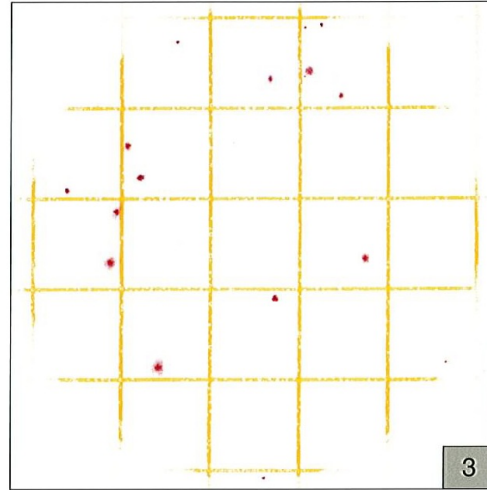


## 3M™ Petrifilm™ Aerobic Count Plate



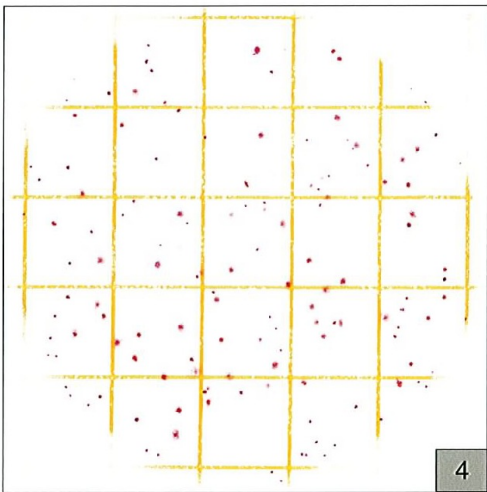
**Count = 0**

It is easy to interpret the Petrifilm AC plate. Figure 2 shows a Petrifilm AC plate without colonies.



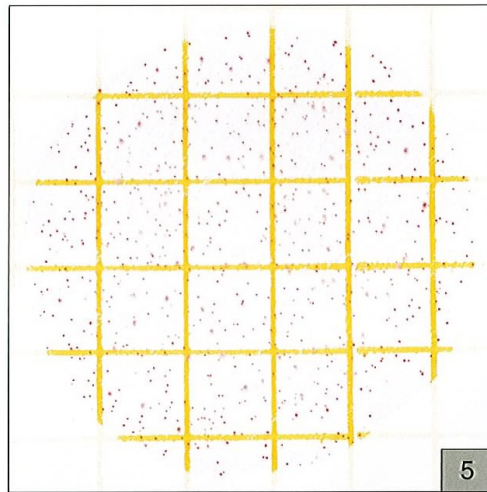
**Count = 16**

Figure 3 shows a Petrifilm AC plate with a few bacterial colonies.



**Count = 143**

The preferable counting range on a Petrifilm AC plate is 25–250 colonies. See figure 4.



**Estimated Count = 560**

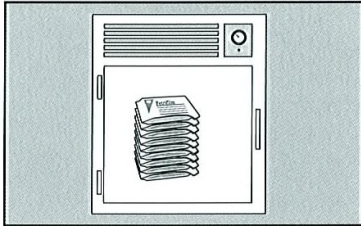
When colonies number more than 250, as in figure 5, estimate the count. Determine the average number of colonies in one square (1 cm<sup>2</sup>) and multiply it by 20 to obtain the total count per plate. The inoculated area on a Petrifilm AC plate is approximately 20 cm<sup>2</sup>.

# 3M Petrifilm™ Aerobic Count Plates

## Reminders for Use

For detailed CAUTIONS, DISCLAIMER OF WARRANTIES / LIMITED REMEDY, LIMITATION OF 3M LIABILITY, STORAGE AND DISPOSAL information, and INSTRUCTIONS FOR USE see Product's package insert.

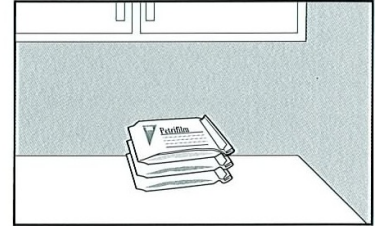
### Storage



- 1 **Store** unopened packages at  $\leq 8^{\circ}\text{C}$  ( $\leq 46^{\circ}\text{F}$ ). Use before expiration date on package. In areas of high humidity where condensate may be an issue, it is best to allow packages to reach room temperature before opening.

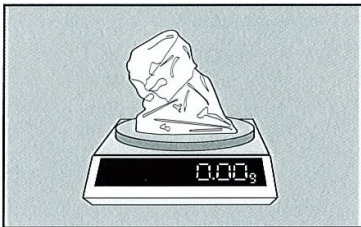


- 2 To seal opened package, fold end over and tape shut.

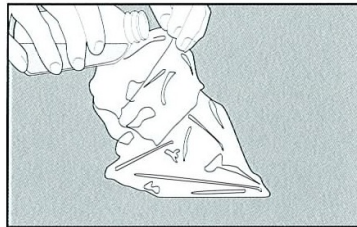


- 3 Keep resealed packages at  $\leq 25^{\circ}\text{C}$  ( $\leq 77^{\circ}\text{F}$ ) and  $\leq 50\% \text{RH}$ . **Do not refrigerate opened packages.** Use Petrifilm plates within one month after opening.

### Sample Preparation

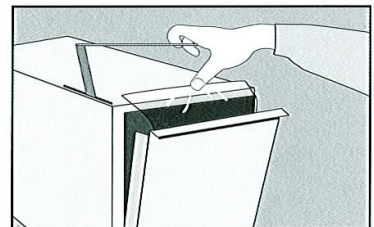


- 4 Prepare a 1:10 or greater dilution of food sample. Weigh or pipette food product into an appropriate container such as a stomacher bag, dilution bottle, Whirl-Pak® bag, or other sterile container.



- 5 Add appropriate quantity of one of the following sterile diluents: Butterfield's phosphate buffer (IDF phosphate buffer, 0.0425 g/L of  $\text{KH}_2\text{PO}_4$  adjusted to pH 7.2), 0.1% peptone water, peptone salt diluent (ISO method 6887), buffered peptone water (ISO method 6579), saline solution (0.85 - 0.90%), bisulfate-free letheen broth, or distilled water.

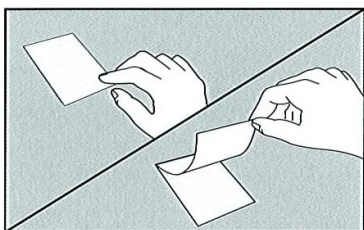
Do not use buffers containing citrate, bisulfite, or thiosulfate; they can inhibit growth.



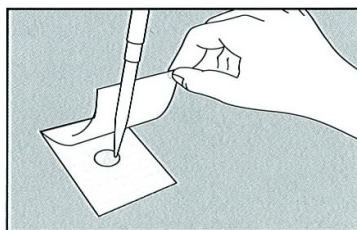
- 6 Blend or homogenize sample per current procedure.

Adjust pH of the diluted sample between 6.6 and 7.2 :  
• for acid products, use 1N NaOH,  
• for alkaline products, use 1N HCl.

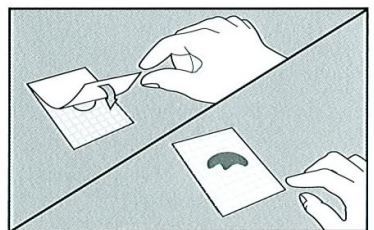
### Inoculation



- 7 Place Petrifilm plate on **level** surface. Lift top film.



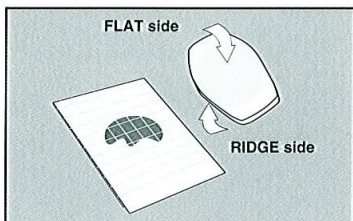
- 8 With pipette **perpendicular** to Petrifilm plate, place 1 mL of sample onto center of bottom film.



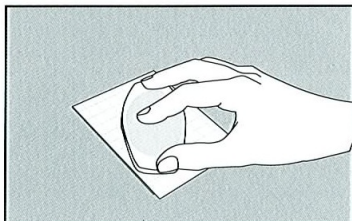
- 9 Release top film; allow it to **drop**. Do **not** roll top film down.

*Continued - over*

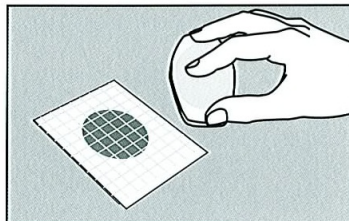




**10** With **ridge** side down, place spreader on top film over inoculum.

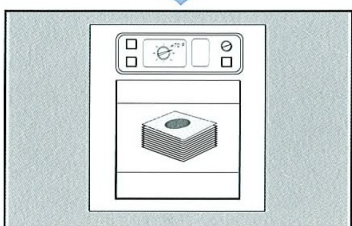


**11** Gently apply pressure on spreader to distribute inoculum over circular area. Do not twist or slide the spreader.



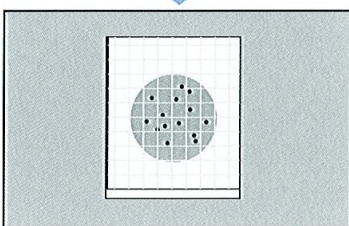
**12** Lift spreader. Wait at least one minute for gel to form.

## Incubation

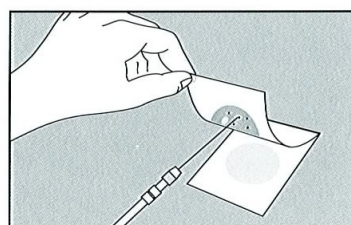


**13** Incubate plates with clear side up in stacks of no more than 20. It may be necessary to humidify incubator to minimize moisture loss.

## Interpretation



**14** Petrifilm plates can be counted on a standard colony counter or other magnified light source. Refer to the *Interpretation Guide* section when reading results.



**15** Colonies may be isolated for further identification. Lift top film and pick the colony from the gel.

Incubation time and temperature varies by method. Most common approved methods:

- **AOAC® Official Method 986.33 & 989.10**  
(milk and dairy products)  
Incubate 48h ± 3h at 32°C ± 1°C
- **AOAC® Official Method 990.12**  
Incubate 48h ± 3h at 35°C ± 1°C
- **AFNOR Validated Method**  
**3M 01/1-09/89**  
Incubate 72h ± 3h at 30°C ± 1°C

## Additional Comments

- Questions? U.S., call **1-800-328-6553**.
- To order Petrifilm Plates in the U.S., call **1-800-328-1671**.
- 3M Microbiology offers a full line of products to accomplish a variety of your microbial testing needs. For more information, visit us at [www.3M.com/microbiology](http://www.3M.com/microbiology)



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