CompactDry™ TC Interpretation Guide



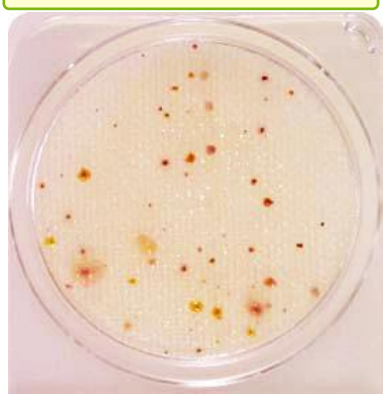
CompactDry TC
TC : Total Viable Count

Certifications : AOAC-PTM, MicroVal, NordVal, AFNOR

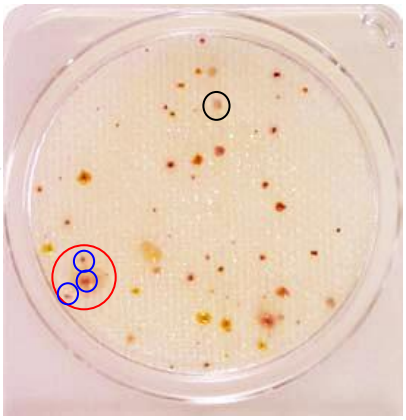
[Features]
This medium is based on the nutrients of standard method agar and is used for the enumeration of total viable count.
Because it contains a tetrazolium salt as a redox indicator, many colonies develop a red color during growth.

[Interpretation]
Incubation 35 ± 1°C or 30 ± 1, 48 ± 3 hours
Many colonies develop a red color

Spread colonies

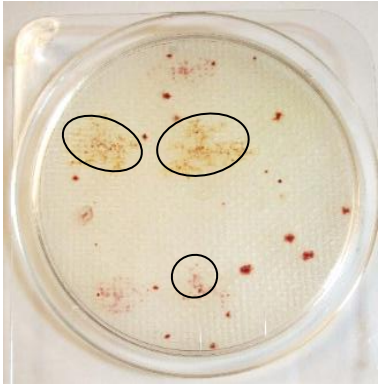


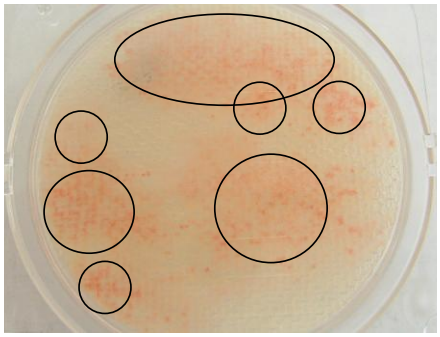
count



Q1. Should the colonies inside the black circle be counted?
A1. Please count colonies even if the red coloration is faint.

Q2. How many colonies should be counted inside the red circle?
A2. Even if coloration spreads around the red center, count it as one colony. The total number of colonies inside the red circle should be counted as three, as circled in blue.





Q. The red coloration has spread. How should it be counted?
A. Highly motile microorganisms may produce colonies that spread on the plate. Such spread growth should be counted as a single colony.

Key Point
When a sample suspension is inoculated onto CompactDry, it spreads uniformly over the entire sheet. As a result, microorganisms present in the sample are also distributed evenly, and colonies should develop across the sheet rather than in only one area. Therefore, results should be interpreted by observing the entire sheet. For samples known to contain highly spreading microorganisms, it may be useful to prepare additional serial dilutions or to examine the plate after 24 hours of incubation and mark colony positions on the back of the plate for reference.

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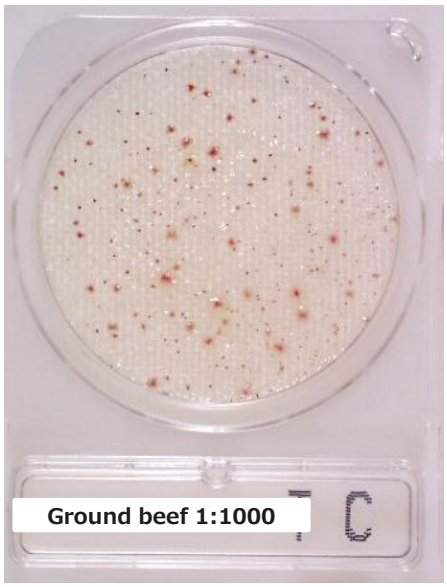
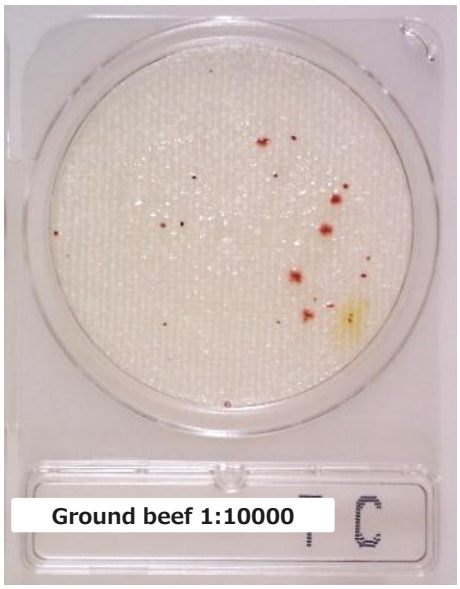
When the Entire Sheet Turns Red / Appropriate Dilution Level









The ground beef sample was inoculated with serially diluted sample suspensions ranging from 1:10 to 1:10000. At the 1:10000 dilution, 21 colonies were counted. Based on the dilution factors, the estimated colony counts were approximately 20000 at the 1:10 dilution, 2000 at the 1:100 dilution, and 200 at the 1:1000 dilution. With CompactDry, colony counting becomes difficult when the number of colonies exceeds approximately 1000 per plate. When the count exceeds 10000, individual colonies can no longer be distinguished, and the entire sheet appears reddish. For accurate enumeration, samples should be diluted appropriately to obtain 300 colonies or fewer per plate.

Key Point!
If the stain is discolored due to an excessive number of microorganisms but the redness is weak, or if you're unsure whether highly motile have spread throughout the sheet and are causing the growth, try slightly opening the lid and smelling it. If microorganisms are growing, there will be a distinctive odor, so observe this information as well.

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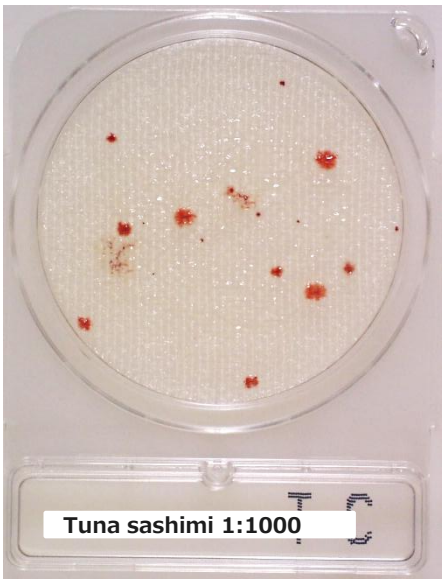
CompactDry™ International Certifications Approved

Colony Morphology in Various Sample

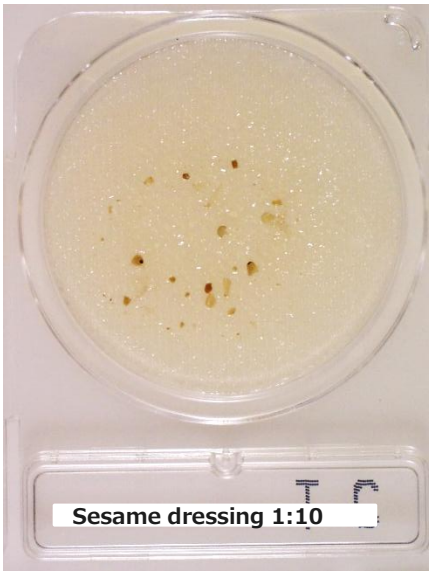






The microbial flora present in food samples varies widely, and each sample may exhibit unique colony characteristics.

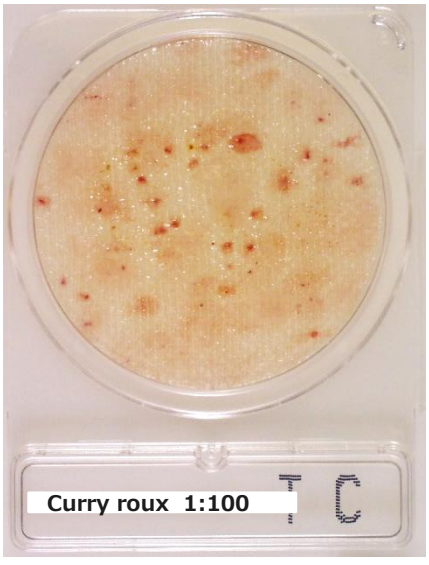
Be careful not to mistake food residue for colonies. Accurate differentiation between food residue and colonies is essential. The use of filter bags is recommended.





For dark-colored food samples, such as curry roux, the color of the sample may interfere with colony observation. However, colonies can often be counted by using an additional dilution step. In heat-treated foods, spread-out colonies of heat-resistant spore-forming bacteria are frequently observed.





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