

Instruction/Usage of Vitroids™ and LENTICULE® discs

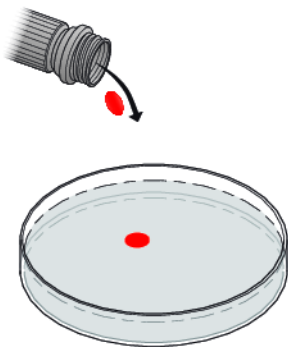
Characterized authenticated quantitative reference materials are mandatory to ensure that food, water, environmental microbiological laboratory samples or prepared culture media (according to ISO 11133:2014 +Amd1:2018[1]) are of acceptable quality, safe and comply with relevant legislation or guidelines. The main requirements for microbiological Reference Materials are stability, homogeneity [2], temperature resistance and reproducibility. Such reference materials must also be fit-for-purpose, bearing in mind that for microbiological samples, the ability to accurately enumerate bacteria and fungi as well as a reliable detection of relatively low numbers of pathogenic organisms is essential. Only authenticated control cultures can help to avoid potentially incorrect results and are the best way to guarantee the above-mentioned sample quality standards [3]. The use of freeze-dried microbiology control strains for such quality tests is very time-consuming and expensive. Thus, ready-to-use microbiological Certified Reference Materials (CRMs) reduce costs, hands-on time and possible error sources.

MilliporeSigma/Merck KGaA Darmstadt Germany is proud to partner with some of the world's premier culture collections to provide a wide, and ever-expanding portfolio of such ready-to-use microbiological CRMs. The Vitroids™ and LENTICULE® discs portfolio includes a selection of important strains for bacteria, yeasts and molds.

Vitroids™ and LENTICULE® discs are provided as a small water-soluble disc. This makes preparing your inoculum exceptionally easy.

The discs could be used to direct inoculate solid media

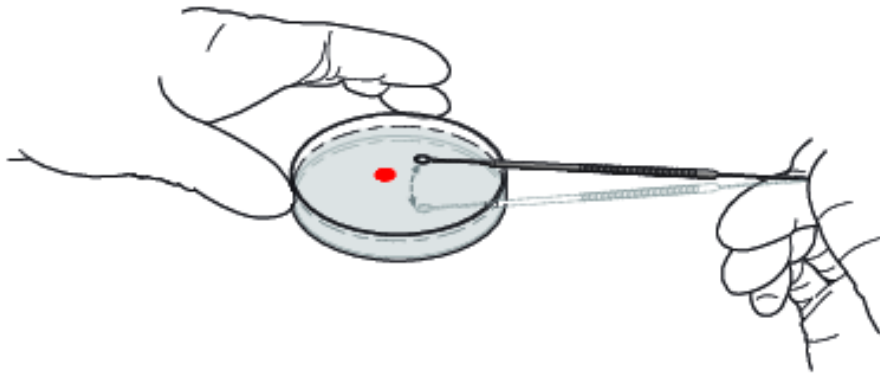
- 1) Remove the tube(s) to be used from the freezer and allow the disc(s) to reach ambient temperature (5 to 10 minutes) before use. Do not refreeze and use the disc(s) within one hour of transfer to ambient temperature.
- 2) Open the tube and remove the discs by inverting the tube over the medium to be used.



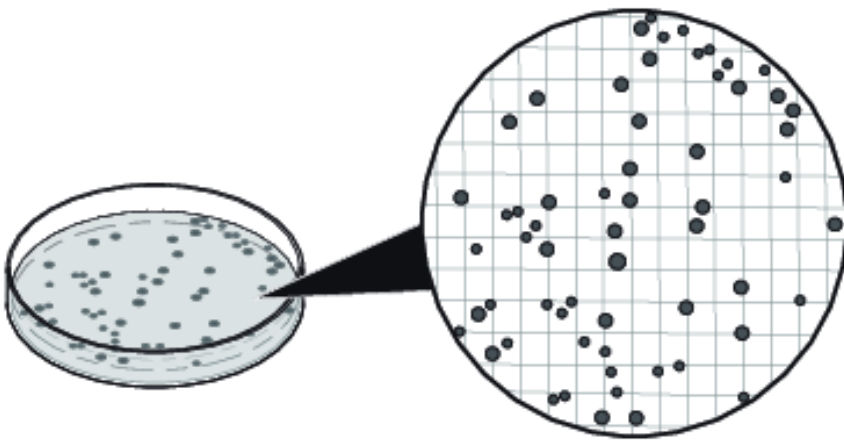
- 3) Leave the discs on the surface of the medium at room temperature. It will rehydrate and after 10 to 15 minutes, ensure that the disc is completely dissolved.



4) Spread the resulting drop over the entire plate.

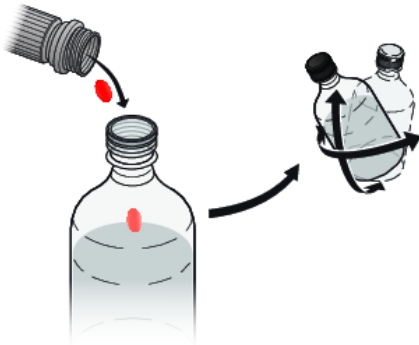


5) Test and incubate the sample in accordance with routine enumeration procedures.

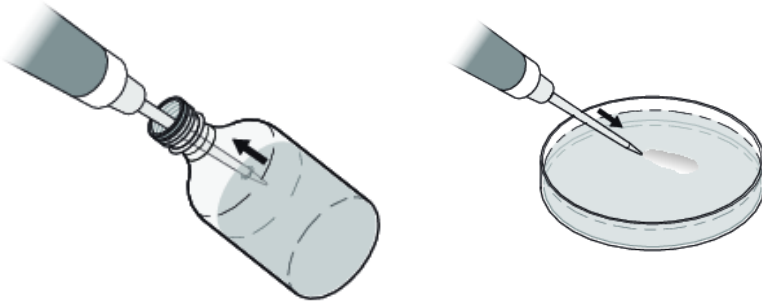


If the disc has a higher concentration or is used to inoculate liquid media, the Vitroids™ and LENTICULE® discs can be rehydrated in liquid medium or buffer, respectively. Please do not rehydrate the discs directly in distilled water.

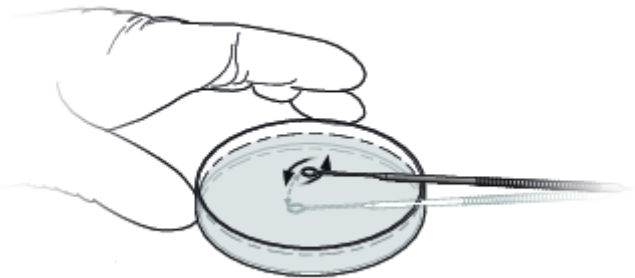
- 1) Remove the tube(s) to be used from the freezer and allow the disc(s) to reach ambient temperature (5 to 10 minutes) before use. Do not refreeze and use the disc(s) within one hour of transfer to ambient temperature.
- 2) Open the tube and remove the discs by inverting the tube over the buffer or medium to be used. Shake gently and leave inoculated buffer/media at room temperature for 10 to 15 minutes. Shake gently again



- 3) Apply the inoculum onto an agar plate



- 4) Spread the drop over the entire plate

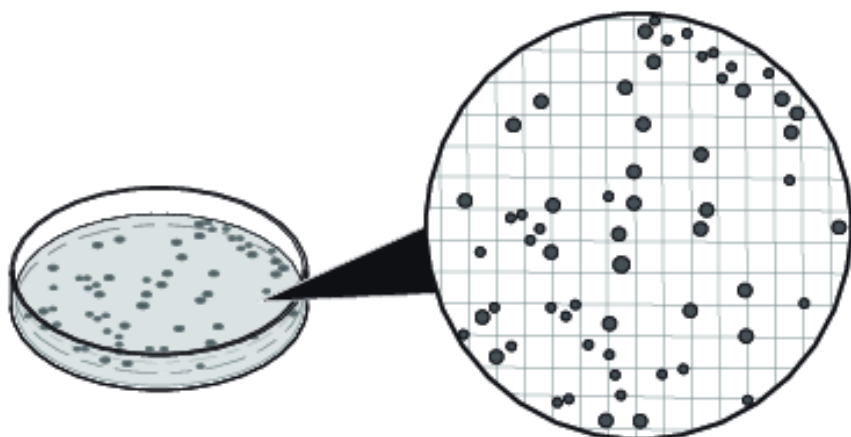


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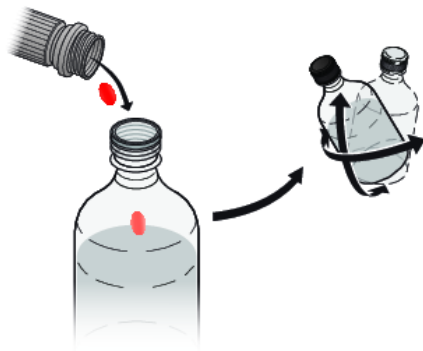
5) Test and incubate the sample in accordance with routine enumeration procedures.



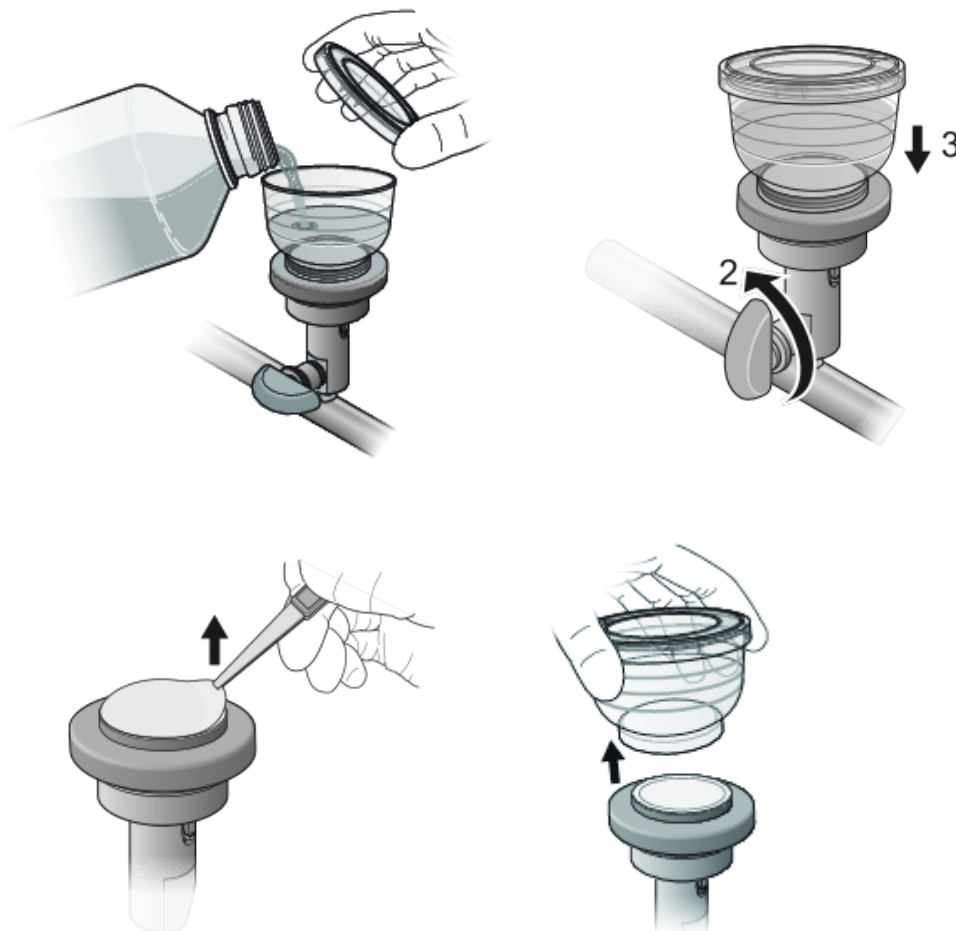
If the discs are used for membrane filtration, the Vitroids™ and LENTICULE® discs can be rehydrated in buffer or dilution solutions, respectively. Please do not rehydrate the discs directly in distilled water.

1) Remove the tube(s) to be used from the freezer and allow the disc(s) to reach ambient temperature (5 to 10 minutes) before use. Do not refreeze and use the disc(s) within one hour of transfer to ambient temperature.

2) Open the tube and remove the discs by inverting the tube over the buffer or medium to be used. Shake gently and leave inoculated buffer/media at room temperature for 10 to 15 minutes. Shake gently again



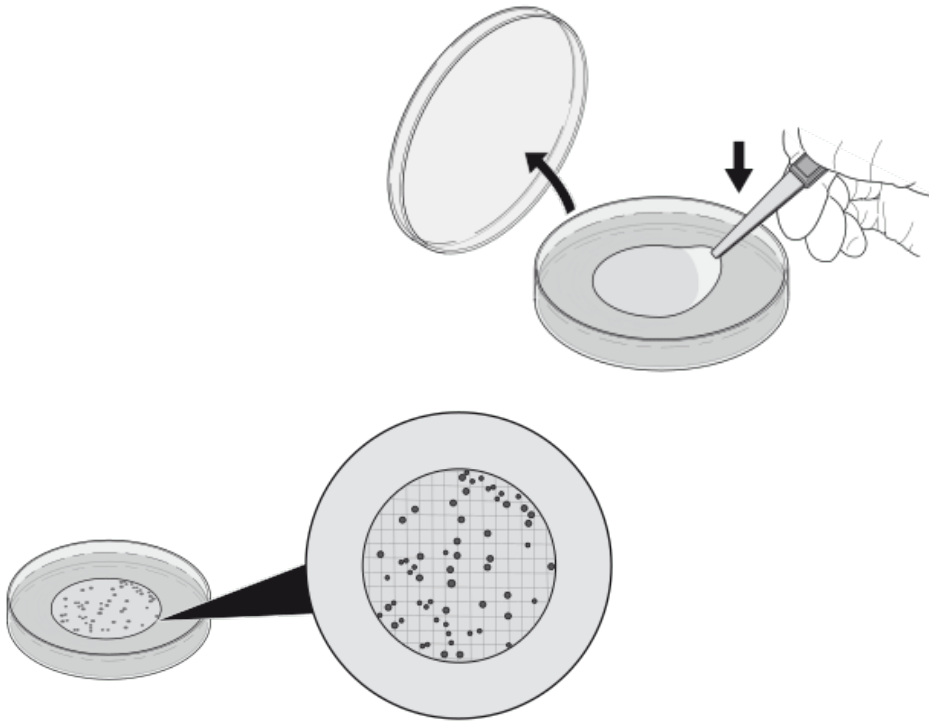
3) Test and incubate the sample in accordance with routine enumeration procedures.



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[1] Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media

(ISO 11133:2014, Corrected version 2014-11-01 + Amd. 1:2018 + Amd. 2:2020)

[2] Linsinger, T., Pauwels, J., van der Veen, A. et al. Accred Qual Assur (2001) 6: 20.

[3] Philipp, W.J., van Iwaarden, P., Schimmel, H. et al. Accred Qual Assur (2007) 12: 13

