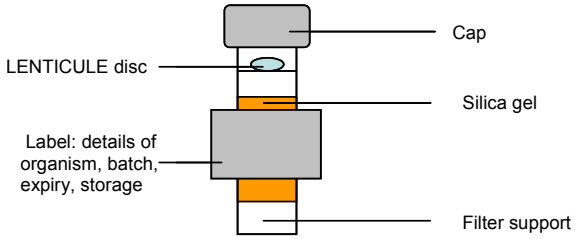
LENTICULE Disc Handling Information

NCTC LENTICULE discs for IQC are microbiological reference materials, which are plano-convex discs containing micro-organisms at a defined number in a solid water soluble matrix. They are supplied as single units supported on a silica gel insert in a small airtight plastic tube - see diagram below. The discs are lens-shaped, are coloured and therefore easily seen on top of the filter insert.



As LENTICULE discs are water soluble they are easily reconstituted.

1. Remove vial(s) to be used from freezer storage at -20°C ± 5°C.
2. Leave to come up to room temperature - approx. 10-15 minutes.
3. Open the vial and remove the disc by simply inverting the vial over the medium to be used - solid or liquid. It can occasionally happen that during transit, the LENTICULE disc slips down the side of the vial between the insert; if this occurs, gently pull the insert out of the vial until the LENTICULE disc is free to be removed and placed onto, or into, the medium being used.

   Any solid or liquid media can be used. However, please note, if using a selective medium, the recovery will usually be lower than on a non-selective medium. Any volume of liquid medium can be used. Once added to the liquid leave to stand. When first added the LENTICULE disc may sink or float; if it floats there is no need to agitate as the disc will re-hydrate even if not completely submerged in the liquid. DO NOT RE-HYDRATE DIRECTLY IN DISTILLED WATER as this will affect the recovery. First re-hydrate in a small volume of Maximum Recovery Diluent (MRD) or similar, and, once re-hydrated, transfer this entire volume distilled water.

4. Leave for 10-15 minutes at room temperature to re-hydrate. Before proceeding, ensure that the disc is completely dissolved. As the disc is 'dry' and coloured, it can be easily seen when it is re-hydrated.
   a. **On solid media**, the resulting 'drop' formed can be spread with a loop and incubated according to the standard operating procedure (SOP).
   b. **In liquid media**, the re-hydrated disc is dispersed by shaking vigorously (e.g. 30 times in 15 seconds). Leave to stand for approx 5 minutes to allow the 'froth' that forms to settle and disperse. The resulting suspension should be tested within one hour of reconstitution.

Additional Information

- **LENTICULE discs for IQC are ISO Registered.**
- **LENTICULE discs** provide a means of an easy-to-use control material containing a quantified number of bacteria. **Strains available are all traceable to NCTC cultures** and are **manufactured from ONE subculture** thus ensuring that the characteristics are retained.
- The ***indicative* mean count of any batch of LENTICULEs is method and media specific**; data giving details of method(s) and media used is provided with each batch supplied. **Potential differences in the use of LENTICULEs as supplied need to be understood and taken into consideration before implementing them as control materials.**
- It is **recommended** that the **customer** should **determine the mean for each batch** of LENTICULE discs purchased using **their specific methods, media and laboratory conditions**.
- If the **result obtained is different to the indicated mean for the batch**, this **does not mean** that the **LENTICULE disc has lost viability**, but that **the parameters used** to assess the viability **have altered**.
- In **any batch of LENTICULE discs**, there will be an **inevitable natural variation** between the numbers of organisms **in each disc**. Therefore, the **mean obtained by a customer** may be **different**, lower or higher, **than that given**; but the **counts obtained should be consistent** and **demonstrate this random variability by a Poisson distribution**.
- **ALL batches** of LENTICULE discs are supplied in packs of **25** as **single units** in small air tight plastic vials; for the full range of organisms available and prices see website **www.hpacultures.org.uk**
- The **recommended storage temperature** for **LENTICULE discs is -20ºC (±5ºC)**. As they are a water soluble matrix, at **temperatures below -30ºC**, the balance of this matrix may be altered, which **can affect the subsequent recovery of organisms from the discs**.
- **Transport** of LENTICULE discs **does not require temperature controlled conditions**; **viability is not affected** by ambient temperatures encountered during transit.

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