

MICROBIO SAMPLING

Method

Analysis generally splits into two methods:

A, Sampling, growing the microorganisms then identifying and enumerating the number of colony forming units.

B, DNA extraction

Technique

Is there a monitoring standard.

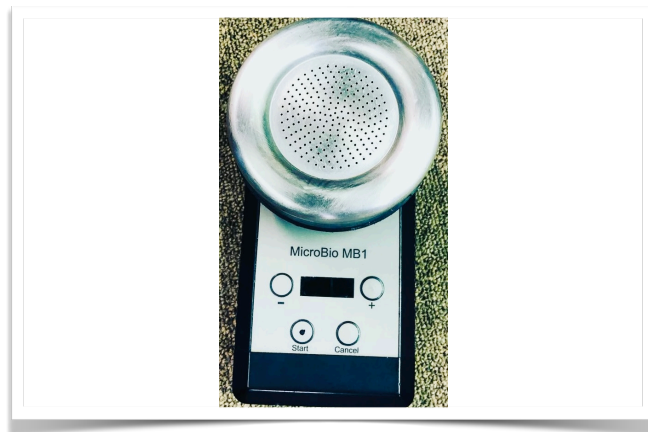
EN 17141-4: Establishment of Microbiological Control

This method used for clean room assessment is a useful guide that can be applied to other scenarios. The products discussed in this article comply with the standard

Protocol

Using a 55mm contact plate or 90mm Petri dish and either a sampling unit with ad50 size of 1,7micron with (220 x 1mm) hole head.

The standard identified above recommends flow rates of 100lpm



Sampling

In the UK, microbial aerosol testing typically employs **impaction, filtration, and impingement methods**. These methods involve drawing air through a device to collect microorganisms, which are then cultured on agar plates or processed for analysis. Impaction uses inertial forces to collect particles onto a surface, while



Further info

When the required volume of air has been sampled for instance 500 or 1000 L the sampler will stop.

The agar Petri dishes are then incubated to grow colonies.

A count is then performed and a count correction applied

This is the equation

$$n_c = nf \left(\frac{1.075}{1.052 - \frac{n_f}{n_h}} \right)^{0.483}$$

Alternately the correction from Cantium scientific can be used

[https://
www.cantiumscientific.com/
support/count-correction/](https://www.cantiumscientific.com/support/count-correction/)

filtration uses a filter to trap them. Impingers, on the other hand, collect microorganisms in a liquid medium.

For further information of this product and other sampling products

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