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Technical Summary: Air quality sampling using settle plates

Air quality testing is an important element of your environmental monitoring program.

The simplest and most effective way to gather information about the quality of the air in your facility is by settle plate analysis.

Settle plates are used to directly sample the likely number of microbes depositing onto a product or work surface over a set period of time.

The following tips represent best practice techniques for the exposure of settle plates in the production environment, as part of a validated environmental monitoring plan.



1. Examine the plates for evidence of contamination prior to use – ensure that there are no marks on the agar or droplets on the inside of the plate lids
2. Assemble the plates and write sample identification details on the base of each plate using a permanent marker. **Do not** write on the lids, in case lids are incorrectly placed on the wrong plate

3. The following details should be marked on each plate:
 - a. Business name
 - b. Date and time sample taken
 - c. Area/location of sample
 - d. Unique identifier/sample number
4. Transfer the plates to the sampling points as identified in your environmental monitoring plan
5. Remove the lid to expose the surface of the medium, resting the lid face down on the surface next to the plate. Take care not to touch the medium or pass anything over the top of the plate being exposed
6. Leave the plates exposed for between 15 minutes and 1 hour, making sure to record the exposure time. For areas of high activity, 15 minutes is sufficient for a reading; for low activity areas, up to one hour is appropriate
7. After exposure time has elapsed:
 - a. Replace the lids carefully, without touching the surface of the medium
 - b. Remove the plates from the production area

- c. Place the plates in a zip lock bag and label with the same details as on the plate
- d. Collect all plates exposed and secure in a suitable container for transportation to the lab

8. Ensure that a control plate is included with the samples – clearly

marked with the business name, date and “Control”. This plate is not to be exposed



9. Complete and enclose the sample submission form

Video tutorial:

There is an accompanying video to this Technical Summary – it is available to view here: <https://focus-on-food.com/free-content/videos/>

ALS offers support to develop and implement an effective Environmental Monitoring program for your facility.

For a comprehensive review and report (including risk assessment, sampling points, specifications, alert and action limits) contact Nick Cork at the email address below.

Use the code “EnvMon19” to access this service for only AUD400 (normally AUD500).*

If you have any other questions, please contact Nick Cork MAIFST:

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* Offer only available to Premium Focus on Food Members as part of their membership benefits