

KEYSTONE LABS

Environmental Monitoring Brochure

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Environmental monitoring is the control of process that will ensure the highest quality product every time. It tells the manufacturing team if there is a microbial problem on site that will affect the product's release for sale.

Monitoring the air quality and surfaces makes troubleshooting easier if something goes wrong, and will help you to find solutions before it affects your product. The investment of time and money upfront can save you plenty of both in the long run. Identifying elevated areas of microbial activity will allow you to fix and control the sources of bacterial and fungal growth.

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Why Should You Care?

Health Canada requires that cannabis is tested for Total Aerobic Count (TAC), Total Yeast and Mold (TYM), Absence of *E. coli* and *Salmonella spp.*, Aflatoxin (a toxin produced by certain types of fungus) and meets the pre-defined specifications before it can be released for sale.

Identifying microbial problems early in the cycle means you can fix the cause before it's a problem.



What Will Environmental Monitoring Do for You?

- Cost savings on remediation or, in extreme cases, cutting down or removing a batch/lot
- Improved and validated cleaning and sanitation program- which means improved SOPs and sanitation staff training
- Improved plant health= improved product and facility: problem free plants will likely have higher THC, and be healthier
- Passing Microbial Testing
- Product consistency and improved product sales: now that's quality assurance!

How Does it Work?

Sampling the air, water and surfaces at pre-defined locations for microbial contamination in your facility on a set frequency.



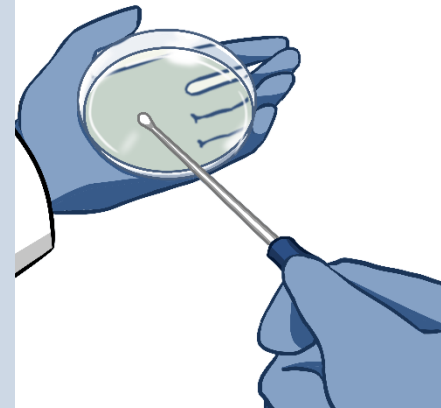
Passive air sampling involves leaving growth medium exposed to the air for a specific amount of time. Microbial cells settle onto the plate and grow into a colony of cells after incubation. The results are expressed in CFU/min.

Active Air sampling involves using an air sampling instrument to pull specified volume of air onto microbial growth media. The microbial organisms are captured onto the plate and the results are expressed in Colony Forming Units/Cubic Meter CFU/m³

Surface sampling utilizes a special kind of plate that leaves the growth medium exposed so it can be pressed onto a surface. Cells will adhere to the growth medium and grow into countable colonies after incubation. The results are expressed in CFU/plate.

Swabs may be useful for sampling a location that is an irregular shape or when using a contact plate is impossible. Keystone does not supply swabs, but we do recommend the following swabs from Fischer Scientific.

1. [Thermo Scientific™ Sanicult™ Environmental Transport Kits](#)
2. [BD Sterile Pack Swabs for Environmental Monitoring](#)



Water Testing (see water testing program) involves testing your city or well water with a local environmental lab, then testing your production, pure water or RO with us for Total Organic Carbon, Microbial (Total Aerobic Count / Total Yeast and Mold) and Conductivity.

[Getting Started: Download our Environmental Monitoring webinar](#)

Email Us the Following Information



- Description of your company, products and past concerns
- Scaled map of the rooms to be monitored
- Indicate on map with an X any high-traffic areas, potential hotspots, HVAC location
- Frequency of testing required or your budget allocation for EM
- Contact and billing information

What We Do for You

- Keystone supplies the contact and settling plates
- Keystone provides a step-by-step guide on how to use the sample plates
- Label, store, and ship your sample plates with the step-by-step guide
- Keystone will incubate, enumerate and complete your final report
- After sending your report, Keystone schedules your one on one so you have a full understanding of your data
- Keystone will instruct you on how to create a graph to trend your data

Contact us to get started, we will send you our program package!

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