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## **AIR, Test Code 1054-Non-Viable Spore Trap**

There are several sampling devices available to collect non-viable spore traps. All equipment required for non-viable sampling needs to be periodically calibrated according to manufacturer's specifications. The suction type slit of volumetric samplers draw air through a narrow slit approximately 3/4 inches in length and impacts a gel layer on either a microscope slide or on a gel surface in a manufactured cassette.

The non-viable sampler can be used to identify fungal spores, hyphal fragments, pollen grains, textile fibers, human skin flakes and plant hairs that may be airborne. When sampling an area take into account how dusty the area appears. Particle counters are useful for screening an environment. Non-biological particulate can impact the sampling surface and mask the fungal particulate, consequently hindering enumeration and identification. If you suspect the trace will be heavy sample for a shorter period of time. If the impacted area appears white, collect a shorter sample and examine the trace until it appears opaque, not white. An outdoor control sample is required so the indoor environment can be compared to the outdoor environment. If sampling for an extended period of time, take an outdoor at the beginning and end of the sampling event.

All cassettes and MCE slides should be kept at room temperature and not stored inside cars during the summer months. During the warmer months it is recommended that slides and cassettes be sent by overnight delivery to reduce the chance of melting the impaction gel layer. MCE slides have an expiration of three months once they leave the laboratory. All manufactured cassettes will have an expiration date and lot number assigned to them. It is not recommended that the cassettes or slides be used after the expiration date due the gel layer drying out and resulting in artificially low numbers.

### **AeroTrap Portable Sampler**

The AeroTrap is set to run at 15 lpm for pre-set times of 1, 2, 5 or 10 minutes. There is a continuous run cycle that requires independent timing. See instruction manual included with sampler. It includes an AeroTrap Rotometer and can be calibrated daily to ensure accurate flow rates. Aerobiology provides adhesive (MCE) slides for this instrument upon request. Once a year the rotometer must be sent for calibration against a primary. Fully charged, the sample has a three hour continuous run battery capability. The sampler can be rented or purchased through Aerobiology.

### **EMS Allergenco D Cassettes and Zefon Air-O-Cell Cassette**

These cassettes are used with a pump with a flow rate of 15 lpm. It is not recommended running the sample for longer than 10 minutes. These cassettes and pumps can be purchased through Aerobiology.

### **Test Code 1026-Particle Characterization - Add on test to a 1054 – Non-Viable Spore Trap**

This test can be used to identify fibrous material, cellulose material, fiberglass, hair, and non fibrous material, obtain pollen counts or identify other target non-biological particles.

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### **References:**

Dillon, H. Kenneth, L. Hung, J. Miller, Field Guide for the Determination of Biological Contaminants in Environmental Samples., 5.2.6.6:61, 7.1: 141-143 (2005).

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