

AIR, Test Code 1038-Stachybotrys Culture & Total Fungal Count w/ ID

Stachybotrys is a toxigenic fungus that is commonly recovered from chronically wetted cellulose-based materials. Due to its toxigenicity, it has been linked to health problems in contaminated buildings and should be treated prudently and in accordance with recommended abatement guidelines.

The air culture for *Stachybotrys* is a two-plate protocol, Malt Extract Agar (MEA) and Cellulose Agar. Cellulose agar which is selective for *Stachybotrys*.

1. Calibrate each sampling pump or piece of equipment by following manufacturer's recommendations.
2. Before each run, thoroughly wipe each sampler stage with rubbing alcohol. Allow to dry. Make sure air passages are not blocked.
3. Load and immediately unload one set of sampling media in each sampler to serve as field blanks.
4. Label agar side of plate with identifier. Remove cover from media, load sampling media into sampler, and attach sampler to pump with flexible tubing or if using a SAS sampler screw the top back onto the sampler..

NOTE: Take special care to prevent contamination of media during loading and unloading. Do not touch agar surface.

5. **Sample at known preset flow for an accurately known time, e.g., 5 min.** Rotary vane pump should run at 28.3 lpm. (In heavily contaminated areas, sampling time may be adjusted). Sample MEA and Cellulose Agar for the same total air volume. Two plates are labeled as one sample on the chain-of-custody.
6. Replace covers on sampling media. Tape plate or place each plate in separate bag, and pack securely for shipment (plates should be media side up).
7. If plates are going to be shipped back to the laboratory send them for overnight delivery in a cooler with an ice pack. If plates are not shipped that day keep the plates in the refrigerator until they are shipped the next day.

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).
Macher, Janet, Sc.D., M.P.H., Bioaerosols , 8.2.3.1, 18.2.1, (1999).
NIOSH Manual of Analytical Methods (NMAM), Fourth Edition Method 0800 January 15, 1998.