



Customer Name: U.S. Micro Solutions, Inc.
Customer Address: 302 Unity Plaza
Latrobe, PA 15650

Sample Date: December 6, 2022
Date Received: December 7, 2022
Date of Report: December 9, 2022

Customer Phone: PO (724) 853-4047
Number:

Fax:
Attention: John Smith

Project Name/Number: Spore Trap Sample Report

Customer sample numbers below are uniquely identified by prefixing Laboratory # 12345-22

Airborne Spore Trap Analysis - AllergencoD													
Analytical Method: MIC 01													
Total Volume (L)		75				75				75			
Sample Number		42001				42002				42003			
Location:		Room 8				Main Hall				2nd Grade Hall			
Particle ID		Raw ct.	AS	Spores/m³	%	Raw ct.	AS	Spores/m³	%	Raw ct.	AS	Spores/m³	%
Alternaria-like		2	13	26	5%	1	13	13	3%	2	13	26	7%
Ascospores		1	13	13	2%	1	13	13	3%				
Aspergillus/Penicillium-like						4	13	52	13%	9	13	117	30%
Basidiospores		29	13	377	69%	9	13	117	30%	6	13	78	20%
Bipolaris/Drechslera										1	13	13	3%
Cercospora													
Chaetomium-like													
Cladosporium		8	13	104	19%	13	13	169	43%	4	13	52	13%
Curvularia										3	13	39	10%
Epicoccum		1	13	13	2%					2	13	26	7%
Helicomyces													
Nigrospora													
Oidium													
Pithomyces		1	13	13	2%								
Polythrincium													
Rusts													
Smuts/ Myxomycetes						2	13	26	7%	3	13	39	10%
Stachybotrys													
Torula													
Trichoderma-like													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mold (Spores/m³ of air)		42		546		30		390		30		390	
Pollen		0	13	< 13		0	13	< 13		0	13	< 13	
Hyphal Fragments		5	13	65		3	13	39					
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				1				1			
Debris		2				2				2			
Analyst Initials		LS				LS				LS			
Date Analyzed		12/07/22				12/07/22				12/07/22			
Exp Date of Cassette:		10/2022				10/2022				10/2022			

Entire trace analyzed. Samples are in good condition unless otherwise noted. Results relate only to the samples tested as received. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant. Total percentage may not equal 100% due to rounding. Percentages reported as 0% are greater than 0 and less than 0.5%. The *Aspergillus/Penicillium*-like category cannot be differentiated by non-viable sampling methods. Results are not blank corrected.
Blank Lines = None Detected

When providing duplicates of this report, the document should be provided in total and not in section. Any unauthorized or improper disclosure, copying, distribution, use, or falsification of these results is prohibited. USMS shall have no liability to the Customer or the Customer's customer for opinions stated, recommendations made, actions taken, or conduct implemented based on the test results reported.

Technical Manager: Deanna L. Kiska

Deanna L. Kiska, Ph.D.

SPORE TRAP INTERPRETATION TIPS

Contains opinions and interpretations

Currently there are no numeric standards for indoor airborne or surface microbial contamination. Suggested guidelines are constantly being reviewed and updated as more information is collected.

Some common denominators should be considered when interpreting results:

1. Comparison of indoor/outdoor concentration ratios.
2. Complaint vs. non-complaint areas or affected vs. non-affected areas.
3. Consider air exchange rates and activity levels in a building structure, weather, and season of the year.
4. Rank order assessment and concentration (e.g., spores/m³ of air) of the fungi.
5. Predominant fungal genera: Are there water indicator microorganisms present, such as but not limited to: *Chaetomium*, *Stachybotrys*, *Trichoderma*, and *Scopulariopsis*.
6. Generally fungal counts indoors should be lower than outdoor counts and the types of fungi found indoors should be similar to outdoors.
7. There is always a potential bias from infiltration of outdoor air, poor housekeeping, excessive indoor relative humidity, or potential contamination sources (e.g. water intrusion through a basement wall) that may negatively influence post remedial verification (PRV) or clearance levels.
8. The investigator should look for various patterns among the indoor types of molds detected:
 - a. Increased levels of primary (1st) colonizers in damp or moisture intrusion areas of homes or commercial buildings: ***Aspergillus/Penicillium*** or ***Cladosporium*** are usually noted.
 - b. ***Chaetomium*** or ***Stachybotrys*** are tertiary (3rd) colonizers of indoor materials and are usually associated with chronic long-standing water/moisture issues in a building.
 - c. The presence of **hyphal fragments** or **fruiting structures** noted on spore trap samples usually indicates amplification (growth) of fungi on building substrates.
 - d. **Ascospores** and **basidiospores** noted on indoor spore trap samples most often represent the entrance of inadequately filtered outdoor air. During inclement weather, remember to note time, temperature, and season. Most indoor materials will not support the growth of these fungi.
9. When unidentified **hyaline** (clear) or **dematiaceous** (dark-pigmented) conidia are noted on a spore trap sample, it indicates that no particular fungus can be identified. These fungal conidia may represent such yeast-like fungi as *Aureobasidium*, *Sporidiobolus*, unidentifiable *Acremonium* species, Basidiomycetes (basidiospores), and Ascomycetes (ascospores).
10. Keep in mind when interpreting spore trap sample reports, that indoor levels may be higher than corresponding outdoor levels (winter time in the northern U.S.) with a predominance of *Aspergillus/Penicillium* or *Cladosporium* conidia with no significant amplification of any molds.

SPORE TRAP GUIDELINES

DEBRIS RATING		
DEBRIS RATING	Debris Load per high power field (600 X)	SIGNIFICANCE
0	A visible trace, including particulates and debris, is not observed.	Indicates the sample is a blank, the area is exceptionally clean, or improper sampling occurred.
1	<5%	Minimal amount of debris is observed.
2	5-25%	Low amount of debris is observed.
3	25-75%	Moderate amount of debris is observed, the accuracy of the analysis is likely affected.
4	75-90%	High amount of debris is observed, the accuracy of the analysis is likely affected.
5 <small>See Relative Abundance chart below</small>	>90%	Periphery of trace analyzed. Relative amounts of conidia/hyphal fragments noted.

RELATIVE ABUNDANCE of FUNGAL PARTICLES (hyphal fragments, spores)	
RATING	Fungal Particle Load per high power field (600 X)
Rare	<5%
Few	5-25%
Moderate	25-75%
Many	75-90%
Numerous	>90%

SKIN CELL RATING	
SKIN CELL RATING	Skin Cell Load per high power field (600 X)
0	No skin cells present
1	<5%
2	5-25%
3	25-75%
4	75-90%
5	>90%

End of Report