



Customer Name: U.S. Micro Solutions, Inc. Sample Date: May 27, 2017  
 Customer Address: 1075 South Main Street, Suite 104 Date Received: May 28, 2017  
 Greensburg, PA 15601 Date of Report: May 29, 2017  
 Customer Phone: (724) 853-4047 Fax: (724) 853-4049  
 PO Number: Attention:  
 Project Name/Number:

Customer sample numbers below are uniquely identified by prefixing Laboratory # 12345-17

Direct Microscopic Examination - Tape Lift  
 Analytical Method: USMS-T049

Customer Sample Number	1														
Sample Description/ Location	Attic Decking														
Particle ID	Rare Amt	Few	Mod	Many	Num	Rare Amt	Few	Mod	Many	Num	Rare Amt	Few	Mod	Many	Num
Alternaria conidia															
Ascospores															
Aspergillus fruiting structures															
Aspergillus/Penicillium-like conidia		X													
Basidiospores															
Bipolaris/Drechslera conidia															
Chaetomium ascospores															
Cladosporium conidia															
Curvularia conidia															
Epicoccum conidia															
Hyphal Fragments		X													
Insect fragments															
Penicillium fruiting structures		X													
Pithomyces/Ulocladium conidia															
Plant fragments															
Pollen (unidentified)															
Rusts															
Smuts/ Myxomycetes															
Stachybotrys conidia															
Stachybotrys fruiting structures															
Torula conidia															
Unidentified dematiaceous conidia															
Unidentified hyaline conidia															
Skin Cell Fragments					1										
Debris					3***										
No fungal conidia/hyphal fragments noted															
Analyst Initials					BM										
Date Analyzed					5/28/17										

Sample Report

Results relate only to the samples tested. The Aspergillus/Penicillium-like category cannot be differentiated by non-viable sampling methods.  
 Mod = Moderate; Num = Numerous

\*\*\* A debris rating of 3 or greater indicates that the accuracy of the analysis is likely affected.

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Technical Manager: Herbert Layman  
 Herbert Layman, BS, SM, CIEC

\*End of Report\*

**GUIDELINES FOR DIRECT MICROSCOPIC EXAMINATION – (DME) OF BULK, SWAB AND TAPE SAMPLES**

These guidelines are not intended for determination of health significance nor are they necessarily representative of unacceptable indoor environments.

Molds require a food source, moisture, and spore production to proliferate, removing any one of these factors can control fungal growth. However, because of their ubiquitous nature, spores can never be completely eliminated from an area.

RELATIVE ABUNDANCE OF CONIDIA/HYPHAL FRAGMENTS per high power field (600x)		
RATING	<sup>1</sup> RELATIVE AMOUNTS OF OBSERVED FUNGAL STRUCTURES	SIGNIFICANCE
Rare	0-1	Indicates a minimal amount of conidia (spores) and/or other fungal structures. Most normal indoor surfaces will show no to low fungal conidia/hyphal fragments. Generally, water indicator moulds such as <i>Stachybotrys</i> or <i>Chaetomium</i> should be further investigated.
Few	2-4	Indicates low amounts of settled spores. Typically, this amount is not consistent with active fungal growth, however, it may suggest an active source nearby, or that a surface has not been cleaned appropriately. The presence of hyphal fragments or fruiting structures may indicate a nearby source of contamination. Generally, the presence of moisture indicator moulds (e.g., <i>Stachybotrys</i> or <i>Chaetomium</i> ) may suggest a chronic or acute water condition from sources such as roofs, plumbing leaks, increased humidity, etc.
Moderate	5-10	Indicates a moderate to heavy amount of fungal contamination (conidia/spores). Generally, this category is indicative of a surface that is or has been affected by active fungal growth. The presence of fruiting structures or hyphal fragments may support the premise that fungal growth is on-going. However, the presence of moderate to numerous conidia/spores alone does not necessarily indicate the viability of the spores. Further investigation of the affected areas may be warranted.
Many	11-100	Indicates that the sample area was highly contaminated with fungal spores and/or hyphal fragments. Samples in this category display an unusually high number of conidia/spores or other fungal structures in each microscopic field.
Numerous	>100	Indicates that the sample area was highly contaminated with fungal spores and/or hyphal fragments. Samples in this category display an unusually high number of conidia/spores or other fungal structures in each microscopic field.

<sup>1</sup>This scale of relative abundance is affected by the size of the sampled area. If very large areas are sampled with a swab for example, this may cause the results to be skewed into a lower or higher category. These results correspond, roughly, to a sample area measuring one square inch.

SKIN CELL ANALYSIS	
SKIN CELL RATING	RELATIVE AMOUNTS OF OBSERVED SKIN CELLS per high power field (600 X)
0	No skin cells present
1	<2
2	2 to 5
3	6 to 10
4	11 to 15
5	≥16

DEBRIS RATING (using 600X magnification)		
DEBRIS RATING	CONDITIONS FOR REPORTING DEBRIS RATING	SIGNIFICANCE
0	Debris is not present.	Sample may be a blank sample or from a very clean or remediated area.
1	Debris is present and <10% of the average viewing field is obscured.	Minimal amount of debris is observed.
2	Debris is present and 10% to <40% of the average viewing field is obscured.	Low amount of debris is observed, relative amounts of conidia/hyphal fragments may be affected.
3 <sup>1</sup>	Debris is present and 40% to 75% of the average viewing field is obscured.	Moderate amount of debris is observed, relative amounts of conidia/hyphal fragments may be underestimated.
4 <sup>1</sup>	Debris is present and >75% of the average viewing field is obscured.	High amount of debris is observed, relative amounts of conidia/hyphal fragments are estimated.
5 <sup>1,2</sup>	Debris is present and the entire viewing field is obscured.	Presence of conidia/hyphal fragments noted. Suggest recollect.

<sup>1</sup>A debris rating of 3 or greater indicates that the accuracy of the analysis is likely affected.

<sup>2</sup>A debris rating of 5 indicates that only the presence of conidia/hyphal fragments was noted. Recollection of the sample is suggested.