

## U.S. Micro-Solutions, Inc. \* 302 Unity Plaza \* Latrobe, PA 15650 Phone: (724) 853-4047 Fax: (724) 853-4049 A2LA # 7000.01 www.usmslab.com

**Customer Name:** U.S. Micro Solutions, Inc. November 30, 2022 Sample Date: **Date Received: Customer Address: December 1, 2022** 302 Unity Plaza Latrobe, PA 15650 **December 1, 2022 Date of Report:** 

**Customer Phone:** (724) 853-4047

Fax: PO Number: Attention: Project Name/Number: Direct Microscopic Exam Sample Report

Customer sample numbers below are uniquely identified by prefixing Laboratory # 12345-22															
Direct Microscopic Examination - Swab															
Analytical Method: MIC 02															
Customer Sample Number S-1															
Sample Description/ Location	Breakroom														
Particle ID	Rare Amt	Few	Mod	Many	Num	Rare Amt	Few	Mod	Many	Num	Rare Amt	Few	Mod	Many	Num
Alternaria-like conidia															
Ascospores															
Aspergillus fruiting structures															
Aspergillus/Penicillium-like conidia			Χ												
Basidiospores															
Bipolaris/Drechslera conidia															
Chaetomium-like ascospores															
Cladosporium conidia															
Curvularia conidia															
Epicoccum conidia															
Hyphal Fragments			Χ												
Insect fragments															
Penicillium fruiting structures															
Pithomyces conidia															
Plant fragments															
Pollen															
Rusts															
Smuts/ Myxomycetes															
Stachybotrys conidia				Х											
Stachybotrys fruiting structures		Χ													
Torula conidia															
Unidentified dematiaceous conidia															
Unidentified hyaline conidia															
Skin Cell Fragments			1												
Debris			2												
No fungal conidia/hyphal fragments															
noted	1														
Analyst Initials	1		LS												
Date Analyzed	1		2/01/2												
Expiration Date of Tape/Swab:		(	06/30/2	22											

Samples are in good condition unless otherwise noted. Results relate only to the samples tested as received. The Aspergillus/Penicillium-like category cannot be differentiated by non-viable sampling methods. Results are not blank corrected. Mod = Moderate; Num = Numerous

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Technical Manager:	Deanna d Kiska			
•	Deanna L. Kiska, Ph.D.			

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

These guidelines contain opinions and interpretations and 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.

FUNGAL PARTICLES (hyphal fragments, spores, fruiting bodies)				
RATING <sup>1</sup>	Fungal Particle Load per high power field (600X)	SIGNIFICANCE		
Rare	<5%	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 molds such as <i>Stachybotrys</i> or <i>Chaetomium</i> should be further investigated.		
Few	5-25%	Indicates low amounts of settled conidia (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 molds (e.g., <i>Stachybotrys</i> or <i>Chaetomiun</i> may suggest a chronic or acute water condition from sources such as roofs, plumbing leaks, increased humidity, etc.		
Moderate	25-75%	Indicates a moderate to heavy amount of fungal contamination (conidia/spores). Generally, this categor 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		
Many	75-90%	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.		
Numerous	>90%	Indicates that the sample area was highly contaminated with fungal conidia/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>&</sup>lt;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 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%			

DEBRIS RATING					
DEBRIS RATING	Debris Load per high power field (600 X)	SIGNIFICANCE			
0	No debris present	Sample may be a blank sample or from a very clean or remediated area.			
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, accuracy of the analysis is likely affected.			
4	75-90%	High amount of debris is observed, accuracy of the analysis is likely affected.			

Page 1 of 1 QLT 02 Form 7 v3 DCR 22-034 Effective 01-27-22