



3301 N.W. 55TH ST., FT. LAUDERDALE, FL 33309
888-854-0477

PREPARED FOR: DOC SHANE PRIORITYLAB CLIENT ACCOUNT

TEST ADDRESS: 555 BEACH AVENUE FORT LAUDERDALE, FL 33309

CERTIFICATE OF PARTICLE ANALYSIS

PREPARED FOR:

DOC SHANE PRIORITYLAB CLIENT ACCOUNT

PHONE NUMBER: (888) 854-0478

EMAIL: DOCSHANE@PRIORITYLAB.COM

TEST LOCATION:

YOUR CLIENT

555 BEACH AVENUE

FORT LAUDERDALE, FL 33309

CHAIN OF CUSTODY # 52674956

COLLECTED: MON MARCH 27, 2023

RECEIVED: TUE MARCH 28, 2023

REPORTED: TUE MARCH 28, 2023

APPROVED BY:

**JOHN D. SHANE PHD
LABORATORY MANAGER**

VERSION: 1.0 (A VERSION NUMBER GREATER THAN ONE (1) INDICATES THAT THE DATA IN THIS REPORT HAS BEEN AMENDED)

EPA regulations or standards for airborne or surface mold concentrations have not been established. There are also no EPA regulations or standards for evaluating health effects due to mold exposure. Information about mold can be found at www.epa.gov/mold.

All samples were received in an acceptable condition for analysis unless noted specifically in the Comments section under a particular sample. All results relate only to the samples submitted for analysis and apply to the samples as received by the laboratory. Volumes, flowrates, areas or other information are supplied by the customer. This information can affect the validity of the results. Results have not been adjusted for field or laboratory unless otherwise noted. InspectorLab bears no responsibility for sample collection activities or analytical method limitations. No warranty is either express or implied and InspectorLab assumes no responsibility or liability for error in public information utilized, statements from sources other than InspectorLab, or developments resulting from situations outside the scope of this analysis, nor for the purpose for which the client uses the analysis. The determinations in this report are outside the scope of the AIHA LAP, LLC scope of accreditation. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. InspectorLab liability is limited to the cost of the sample analysis and may not exceed the amount of the fee paid by the client.

Reports are issued free of alterations or additions and InspectorLab does not accept liability of the tampering or unlawful alteration of documents sent. All reports are expressly and exclusively for InspectorLab clients and may not be reproduced by third parties. If this report is reproduced, it must be reproduced in full unless written permission is obtained from InspectorLab. InspectorLab keeps all client data secure and confidential and any information contained in reports or files will not be divulged unless permission is expressly given by the client submitting the sample(s) except where authorized by law and all InspectorLab employees are required to maintain the confidentiality of all non-public personal information provided. We do not sell client information to anyone or disclose client information to marketing companies. This disclaimer governs the use of this report. By using or accepting this report, you accept this disclaimer in full.

FOR MORE INFORMATION, PLEASE CONTACT INSPECTORLAB AT (888) 854-0477 OR EMAIL ASK@INSPECTORLAB.COM

Detailed Particle Identification Report

Analysis Method	Air Analysis	Air Analysis	Air Analysis	Air Analysis
Lab Sample #	52674956-1	52674956-2	52674956-3	52674956-4
Sample Identification	1234567	2345678	3456789	1012345
Sample Location	OUTSIDE	DEN	KITCHEN	BASEMENT
Sample Type / Metric	Breeze ST/150L	Breeze ST/150L	Breeze ST/150L	Breeze ST/150L
Analysis Date	Tue March 28, 2023	Tue March 28, 2023	Tue March 28, 2023	Tue March 28, 2023

Particle Types Identified	Raw Count	Particles / m ³	% of Total	Raw Count	Particles / m ³	% of Total	Raw Count	Particles / m ³	% of Total	Raw Count	Particles / m ³	% of Total
Amorphous Organic Debris	17	114	<1	6	40	1	8	54	<1	16	107	2
Charred Woody Fragments	---	---	---	34	228	9	5	34	<1	14	94	2
Feather Barbules	---	---	---	1	7	<1	---	---	---	10	67	1
Fiberglass	---	---	---	3	20	<1	1	7	<1	19	127	3
Fibers-Cotton	---	---	---	13	87	3	6	40	<1	45	302	7
Fibers-Synthetic	---	---	---	4	27	1	4	27	<1	101	677	16
Fire Related Soot	---	---	---	136	911	37	865	5796	85	78	523	12
Insect Fragments	4	27	<1	---	---	---	1	7	<1	1	7	<1
Low Contrast Amorphous	31	208	<1	4	27	1	5	34	<1	---	---	---
Minerals	8762	58705	98	14	94	3	10	67	<1	37	248	6
Plant Fragments	17	114	<1	1	7	<1	6	40	<1	8	54	1
Pollen-Grass	13	87	<1	---	---	---	---	---	---	5	34	<1
Skin Cells	---	---	---	103	690	28	67	449	6	196	1313	32
Soot	13	87	<1	---	---	---	---	---	---	---	---	---
Starch Grains	---	---	---	43	288	11	28	188	2	66	442	10
Tire Rubber	6	40	<1	---	---	---	1	7	<1	---	---	---
Wood-Softwood Fragments	---	---	---	4	27	1	7	47	<1	8	54	1

Minimum Detection Limit	7			7			7			7		
--------------------------------	---	--	--	---	--	--	---	--	--	---	--	--

Comments/Definitions Raw Count: Actual number of particles observed and counted. Particles/m³: Particles per cubic meter. % of Total: Percentage of a particular particle type in relation to total number of other particles. ---: Particle type was not observed.	Debris is defined as any and all particles that are not mold spores and / or hyphae. Determining a normal amount of debris is not possible because no baseline data exist. Interpretation of debris types and amounts should be made with caution because so many factors can influence debris loads, e.g., housecleaning, type of vacuum cleaner, pets, carpets, conditions outside, etc. Homes normally have a diverse amount of materials in them and therefore, a wide diversity of particles are often identified in air samples. Fiberglass is normally found in indoor samples, but a large amount of fiberglass is not normal in indoor air samples.	Debris is defined as any and all particles that are not mold spores and / or hyphae. Determining a normal amount of debris is not possible because no baseline data exist. Interpretation of debris types and amounts should be made with caution because so many factors can influence debris loads, e.g., housecleaning, type of vacuum cleaner, pets, carpets, conditions outside, etc. Homes normally have a diverse amount of materials in them and therefore, a wide diversity of particles are often identified in air samples. Fiberglass is normally found in indoor samples, but a large amount of fiberglass is not normal in indoor air samples.	Debris is defined as any and all particles that are not mold spores and / or hyphae. Determining a normal amount of debris is not possible because no baseline data exist. Interpretation of debris types and amounts should be made with caution because so many factors can influence debris loads, e.g., housecleaning, type of vacuum cleaner, pets, carpets, conditions outside, etc. Homes normally have a diverse amount of materials in them and therefore, a wide diversity of particles are often identified in air samples. Fiberglass is normally found in indoor samples, but a large amount of fiberglass is not normal in indoor air samples.	Debris is defined as any and all particles that are not mold spores and / or hyphae. Determining a normal amount of debris is not possible because no baseline data exist. Interpretation of debris types and amounts should be made with caution because so many factors can influence debris loads, e.g., housecleaning, type of vacuum cleaner, pets, carpets, conditions outside, etc. Homes normally have a diverse amount of materials in them and therefore, a wide diversity of particles are often identified in air samples. Fiberglass is normally found in indoor samples, but a large amount of fiberglass is not normal in indoor air samples.
--	--	--	--	--

Introduction

All particles are generated from substances, either organic, inorganic, living or dead. Particle generation is a natural consequence of growth, friction, combustion or some other process. Particles are found everywhere in the built and natural environment and therefore, it is not unusual to find particles in indoor and outdoor air. Furthermore, since homes are not built to prevent the entry of outside air, the same kind of particles can be found in the outdoor as well as the indoor air. This Particle Glossary is only intended to provide general information about the particles and their origin in the samples provided to the laboratory.

Interpretation of any Particle Report is the responsibility of the company and/or individual collecting the samples.

Amorphous Organic Debris

Comments: Organic debris that has not structure.

Charred Woody Fragments

Comments: Charred wood fragments are a result of both high and low temperature combustion. They are produced from a variety of fire types. These fragments can sometimes be related to a taxonomic group and thus can be helpful in identifying the wood source origin.

Feather Barbules

Comments: Feather barbules are soft, small filamentous structure emanating from the quill point of the down. A branch of the barb plus its nodes can be identified.

The source of feather barbules in homes is typically from; 1) down comforters, 2) down pillows and 3) down clothing.

Feather barbules can also be seen in homes with birds although these are typically larger than the barbules of down.

Fiberglass

Comments: Fiberglass is inert and the predominant insulation inside almost all building. Small amounts of fiberglass is normal inside buildings. A large amount of fiberglass in the air could indicate a breach in fiberglass ducting or a filter that is desintegrating. Fiberglass is considered non-allergenic.

Fibers-Cotton

Comments: Cotton fibers are cellulosic seed hairs from which cotton clothes are made. These fibers are originally long, but break into smaller fibers as a consequence of wear.

PREPARED FOR: DOC SHANE PRIORITYLAB CLIENT ACCOUNT**TEST ADDRESS:** 555 BEACH AVENUE FORT LAUDERDALE, FL 33309***Fibers-Synthetic***

Comments: Synthetic fibers are derived mostly from carpets and synthetic clothing materials. They are considered non-allergenic and normally found indoors in small concentrations.

Fire Related Soot

Comments: This type of soot is from emissions most likely as a result of house fires - a fire containing particles and gases that include charred and coked fuel, heat decomposed associated materials, and agglomerates of "soot" and condensed organic compounds. Also candle soot. Because of the very small particle size, this particle usually agglomerates.

Insect Fragments

Comments: Insect fragments are commonly found indoors because insects are a normal part of most indoor environments. Their body parts that get airborne are mostly inert and non-allergenic.

Low Contrast Amorphous

Comments: These particles are transparent, low contrast and are of uncertain origin. They can range from as small as 1-2 μm to 40-50 μm .

Minerals

Comments: Minerals of all kinds can be found in turbulent air. The most common mineral in the air is silica. Low concentrations in the air are normal. Outside air generally has a higher concentration than indoor air. It is considered non-allergenic.

Plant Fragments

Comments: Non-woody plant fragments are derived from the degradation of non-woody parts of plants that are naturally found inside and (mostly) outside. They are considered non-allergenic.

Pollen-Grass

Comments: Any one of a number of grass pollen grains - most look alike and species identification is not usually possible. Moderate to high allergenicity

PREPARED FOR: DOC SHANE PRIORITYLAB CLIENT ACCOUNT**TEST ADDRESS:** 555 BEACH AVENUE FORT LAUDERDALE, FL 33309***Skin Cells***

Comments: Skin cells are derived from the body and are normally in all environments humans live in. A large concentration in the air is not normal. A large concentration could mean an abnormal exposure to dust mite allergens. Dust mites eat skin cells and their droppings are allergenic.

Soot

Comments: Soot is derived from incomplete combustion of any product - gas to particle conversion process. It is impossible to identify the type of soot or its origin based on light microscopic techniques. Soot particles are normally fine to ultra fine (<100 nm).

Detailed analysis of soot can best be accomplished using the electron microscopy and energy dispersive spectroscopy. These methods can provide detailed morphology and chemical composition of the soot particles.

Starch Grains

Comments: Starch grains are found in and on a variety of products people have in their homes like food, clothing and paper. Most starch grains in homes and on and in products are derived from corn and are considered non-allergenic.

Tire Rubber

Comments: Tire rubber is produced from friction degrading car and truck tires. A small amount is normal in most outdoor air. It is not common indoors.

Wood-Softwood Fragments

Comments: Softwoods are commonly used in building homes and offices, e.g., framing timber, subfloors, etc. Fragments are easily identified based on the structure and morphology of the xylem elements (wood). These fragments are most common when samples are taken from surfaces, but can also be found in the air.

PREPARED FOR: DOC SHANE COMPANY CLIENT ACCOUNT**TEST ADDRESS:** 1234 MUIR STREET HAYWARD, CA 94544**CERTIFICATE OF MOLD ANALYSIS****PREPARED FOR:**

DOC SHANE COMPANY CLIENT ACCOUNT

PHONE NUMBER: (888) 854-0478

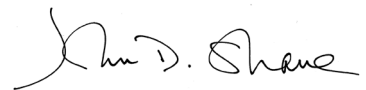
EMAIL: JSCHOEN52@GMAIL.COM

TEST LOCATION:**TEST CLIENT****1234 MUIR STREET****HAYWARD, CA 94544****CHAIN OF CUSTODY # 52343548**

COLLECTED: MON APRIL 27, 2020

RECEIVED: TUE APRIL 28, 2020

REPORTED:

**APPROVED BY: JOHN D. SHANE PH.D.,
LABORATORY MANAGER**

VERSION: 1.0 (A VERSION NUMBER GREATER THAN ONE (1) INDICATES THAT THE DATA IN THIS REPORT HAS BEEN AMENDED)

EPA regulations or standards for airborne or surface mold concentrations have not been established. There are also no EPA regulations or standards for evaluating health effects due to mold exposure. Information about mold can be found at www.epa.gov/mold.

All samples were received in an acceptable condition for analysis unless noted specifically in the Comments section under a particular sample. All results relate only to the samples submitted for analysis and apply to the samples as received by the laboratory. Volumes, flowrates, areas or other information are supplied by the customer. This information can affect the validity of the results. Results have not been adjusted for field or laboratory unless otherwise noted. InspectorLab bears no responsibility for sample collection activities or analytical method limitations. No warranty is either express or implied and InspectorLab assumes no responsibility or liability for error in public information utilized, statements from sources other than InspectorLab, or developments resulting from situations outside the scope of this analysis, nor for the purpose for which the client uses the analysis. The determinations in this report are outside the scope of the AIHA LAP, LLC scope of accreditation. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. InspectorLab liability is limited to the cost of the sample analysis and may not exceed the amount of the fee paid by the client.

Reports are issued free of alterations or additions and InspectorLab does not accept liability of the tampering or unlawful alteration of documents sent. All reports are expressly and exclusively for InspectorLab clients and may not be reproduced by third parties. If this report is reproduced, it must be reproduced in full unless written permission is obtained from InspectorLab. InspectorLab keeps all client data secure and confidential and any information contained in reports or files will not be divulged unless permission is expressly given by the client submitting the sample(s) except where authorized by law and all InspectorLab employees are required to maintain the confidentiality of all non-public personal information provided. We do not sell client information to anyone or disclose client information to marketing companies. This disclaimer governs the use of this report. By using or accepting this report, you accept this disclaimer in full.

Detailed Mold Report (WATER-INDICATING FUNGI, IF PRESENT, ARE SHOWN BELOW IN RED)

Analysis Method	Air Analysis	Air Analysis	Air Analysis	Surface Analysis
Lab Sample #	52343548-1	52343548-2	52343548-3	52343548-4
Sample Identification	23457652	23452223	53422445	23477779
Sample Location	OUTSIDE CONTROL	KITCHEN	FAMILY ROOM	FAMILY ROOM WALL NEAR COUCH
Sample Type / Metric	Air-O-Cell/150L	Air-O-Cell/150L	Air-O-Cell/150L	Swab
Analysis Date	Tue April 28, 2020	Tue April 28, 2020	Tue April 28, 2020	Tue April 28, 2020
Determination	CONTROL	NORMAL	PROBLEM	GROWTH

Fungal Types Identified	Raw Count	Spores / m ³	% of Total	Raw Count	Spores / m ³	% of Total	Raw Count	Spores / m ³	% of Total	Mold Present	
*INDOOR PROBLEM FUNGI											
Chaetomium	---	---	---	---	---	---	45	302	7	Present	
Hyphae	---	---	---	---	---	---	---	---	---	Present	
Penicillium/Aspergillus	---	---	---	---	---	---	348	2,332	60	Present	
Scopulariopsis	---	---	---	---	---	---	---	---	---	Present	
Stachybotrys	---	---	---	---	---	---	82	549	14	Present	
**Non-Problem Fungi											
Alternaria	10	67	<1	2	13	2	1	7	<1	---	
Ascospores	1,546	10,358	80	32	214	33	44	295	7	---	
Basidiospores	254	1,702	13	16	107	16	27	181	4	---	
Bipolaris/Drechslera	2	13	<1	---	---	---	---	---	---	---	
Cercospora	3	20	<1	---	---	---	---	---	---	---	
Cladosporium	79	529	4	18	121	18	20	134	3	---	
Epicoccum	4	27	<1	---	---	---	---	---	---	---	
Penicillium/Aspergillus	12	80	<1	22	147	22	*	*	*	*	
Pithomyces	6	40	<1	---	---	---	1	7	<1	---	
Smut/Myxomycetes	7	47	<1	6	40	6	6	40	1	---	
Total Spore Count[#]	1,900	13,000	100	96	640	100	570	3,800	100	NA	
Minimum Detection Limit	7			7			7			1	
Comments/Definitions	<p>Raw Count: Actual number of spores observed and counted.</p> <p>Spores/m³: Spores per cubic meter.</p> <p>% of Total: Percentage of a particular spore in relation to total number of spores.</p> <p>Present = growth observed.</p> <p>---: Spore type was not observed.</p> <p>*: Indicates to look above at the names in red under "indoor problem fungi".</p>			<p>Mold counts are within a NORMAL RANGE and there is no indication, based on the mold counts, that there is any exposure concern to the occupants. The LIGHT DEBRIS present in the sample likely had no effect on the accuracy of the mold count.</p>			<p>Mold concentrations in the air are ABNORMAL and based on the mold counts, you likely have a mold source from which spores are able to become airborne and are an exposure concern to the occupants. LIGHT DEBRIS: The debris present in the sample likely had no effect on the accuracy of the mold count.</p>			<p>Presence of current or former MOLD GROWTH observed. EXPOSURE TO SPORES LIKELY and will continue if the growth is not removed. An active or intermittent water source will cause the mold to continue to grow if the water source is not eliminated.</p>	

* Indoor Problem Fungi are generally capable of growing on wetted building materials.

** Non-Problem Fungi are less capable or do not grow on wetted building materials. They are commonly found in the air outside and infiltrate into indoor air naturally. High numbers of any one of these spore types as compared to the Control sample may indicate that they are growing on wetted building materials indoors.

Spore types not listed in this report were not observed.

Background debris estimates the amount of non-spore particles. Increasing amount of debris will affect the accuracy of the spore counts. Total percent may not equal 100% due to rounding.

[#]Total Spore Counts are reported to 2 significant figures.

PREPARED FOR: DOC SHANE COMPANY CLIENT ACCOUNT**TEST ADDRESS:** 1234 MUIR STREET HAYWARD, CA 94544

Introduction

All spores found in indoor air are also normally found in outdoor air because most originate or live in the soil and on dead or decaying plants. Therefore, it is not unusual to find mold spores in indoor air. This Mold Glossary is only intended to provide general information about the mold found in the samples that were provided to the laboratory.

Alternaria

Outdoor Habitat: One of the most commonly observed spores in the outdoor air worldwide, normally in low numbers.

Indoor Habitat: Capable of growing on a wide variety of substrates and manufactured products found indoors when wetted.

Allergy Potential: Type I (hay fever, asthma), Type III (hypersensitivity pneumonitis), Common cause of extrinsic asthma

Disease Potential: Not normally considered a pathogen, but can become so in immunocompromised persons.

Toxin Potential: Several known

Comments: One of the most common and potent allergens in the indoor and outdoor air. Seen in indoor air in low concentrations, probably as a result of outdoor air infiltration and/or recycling of settled dust.

Ascospores

Outdoor Habitat: Soil and decaying vegetation, dead and dying insects. These spores constitute a large part of the spores in the air and can be found in the air in very large numbers in the spring and summer, especially during and up to three (3) days after a rain.

Indoor Habitat: Very few of fungi that produce ascospores grow indoors. Some fungi that produce ascospores are recognizable by their spores and when observed are listed under their own categories. Wetted wood and gypsum wallboard paper

Allergy Potential: Depends on the type of fungus producing the ascospores.

Disease Potential: Not normally pathogenic as a group

Toxin Potential: None known

Comments: Ascospores are produced from a very large group of fungi. Notable ascospores that are considered problematic for indoor environments are Chaetomium, Peziza, and Ascotracha. If these types of ascospores are observed they will be listed in the report under their own names.

PREPARED FOR: DOC SHANE COMPANY CLIENT ACCOUNT

TEST ADDRESS: 1234 MUIR STREET HAYWARD, CA 94544

Basidiospores

Outdoor Habitat: These are mushroom spores and are common everywhere outside, especially in the late summer and fall.

Indoor Habitat: Mushrooms can grow on very wet wood products, especially on footer plates, basements, and crawlspaces. Sometimes mushrooms can be observed growing in potted plants indoors.

Allergy Potential: Rarely reported, but some Type I (hay fever, asthma) and Type III (hypersensitivity pneumonitis) has been reported.

Disease Potential: None known

Toxin Potential: None known

Comments: Mushroom spores are commonly found indoors, especially when the outdoor spore count is high. When spores of this group are derived from wood rotting fungi, including dry rot (*Serpula* and *Poria*), they can be especially destructive to buildings. When spores from destructive types of mushrooms (dry and wet rot group) are observed in the sample they are listed under their own names on the report.

Bipolaris/Drechslera

Outdoor Habitat: Commonly observed spores in the outdoor air worldwide, normally in low numbers.

Indoor Habitat: Wetted wood and gypsum wallboard paper

Allergy Potential: Type I (hay fever, asthma)

Disease Potential: Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals.

Toxin Potential: None known

Comments: This category represents at least three genera, including *Bipolaris*, *Drechslera*, and *Exserohilum*. This group cannot be consistently separated by spore morphology alone.

Cercospora

Outdoor Habitat: Parasitic on leaves

Indoor Habitat: Not known to grow indoors

Allergy Potential: None known

Disease Potential: None known

Toxin Potential: None known

Comments: Easily dispersed by wind

PREPARED FOR: DOC SHANE COMPANY CLIENT ACCOUNT

TEST ADDRESS: 1234 MUIR STREET HAYWARD, CA 94544

Chaetomium

Outdoor Habitat: Commonly found on paper products, soil, decaying vegetation, wood and natural fiber textiles (such as jute-backed carpets, canvas, etc.) and similar materials. They are rarely identified in outdoor air. These spores can be disseminated by insects, wind and water splash, etc. It is also known as a soft-rot fungus for softwood and hardwood timber.

Indoor Habitat: Chaetomium is often found on a variety of substrates containing cellulose that are chronically wetted, including paper documents, wallpaper, textiles and construction materials like gypsum board (paper-coated sheet rock) and wood.

Chaetomium can develop quickly, covering a surface with substantial growth after two weeks.

Chaetomium globosum is the most commonly found species of Chaetomium indoors. It is not that unusual to find the occasional Chaetomium spore in the air indoors.

Allergy Potential: Type I (hay fever, asthma) potential. However, no allergens have yet been characterised. However, at least two potential allergens have been isolated.

Disease Potential: Rarely reported as human pathogen.

Toxin Potential: Several known

Comments: Chaetomium spores are easily disseminated when it becomes dry. However, Chaetomium spores do not remain airborne for long unless disturbed.

This genus is often associated with termite damaged and rotting wood. These spores will continue to be found in the air until this damaged wood is removed.

High numbers of spores of this genus is not normal for indoor environments and indicate a current or former water problem. Furthermore, since the spores are held together by mucilage and trapped by hairs, few become airborne until the mold has completely dried out or is mechanically disturbed during renovations remediation. It is, therefore, not uncommon to find low Chaetomium spore counts in pre-remediation air samples and relatively higher counts in post-remediation samples.

Chaetomium species colonize surfaces under similar conditions as Stachybotrys, Alternaria, Fusarium and Ulocladium.

HIGH CONCENTRATIONS AND LONG EXPOSURES TO CHAETOMIUM SHOULD BE AVOIDED.

PREPARED FOR: DOC SHANE COMPANY CLIENT ACCOUNT**TEST ADDRESS:** 1234 MUJR STREET HAYWARD, CA 94544***Cladosporium***

Outdoor Habitat: Cladosporium is one of the most common environmental fungi observed worldwide and is widely reported from soil and decaying vegetation.

Cladosporium herbarum and C. cladosporioides are among the most frequently encountered species, both in outdoor and indoor environments.

Indoor Habitat: Wetted wood and gypsum wallboard paper, paper products, textiles, rubber, window sills. Cladosporium has the ability to grow at low temperatures and can thus, grow on rubber gaskets and food in refrigerators.

Allergy Potential: Type I (hay fever, asthma) - an important and common outdoor allergen

Disease Potential: Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals. Cladosporium are some of the most common species reported as indoor contaminants, occasionally linked to health problems.

Toxin Potential: Cladosporium has two known toxins (cladosporin and emodin). These toxins are not known to be highly toxic. There is no evidence in the literature of toxic effects associated to inhalation of Cladosporium conidia (spores) indoors.

Comments: The most commonly reported spore in the outdoor air worldwide. This makes Cladosporium one of the most commonly reported and abundant spore types both indoors and outdoors. The prevalence of this spore can vary throughout the year, but is especially high in late summer and autumn, especially where cereal crops are commonly planted.

An important and common allergen source.

Epicoccum

Outdoor Habitat: Epicoccum is a widespread cosmopolitan that grows on dead or decaying organic matter, wood, textiles, paper, a variety of foods, insects and human skin. It is commonly found in the soil. Epicoccum spores are more prevalent on dry, windy days, with higher counts late in the day.

Indoor Habitat: Capable of growing on a wide variety of substrates and manufactured products found indoors when wetted such as gypsum board, floors, carpets, mattress dust, and house plants.

Allergy Potential: Type I (hay fever, asthma)

Disease Potential: None known

Toxin Potential: None known

Comments: Very common in outdoor air in the summer months, especially in the midwest USA during harvest times.

PREPARED FOR: DOC SHANE COMPANY CLIENT ACCOUNT

TEST ADDRESS: 1234 MUIR STREET HAYWARD, CA 94544

Hyphae**Outdoor Habitat:** Any cellulose-based substance that fungi can inhabit.**Indoor Habitat:** Wetted wood and gypsum wallboard paper, etc.**Allergy Potential:** Known to be allergenic.**Disease Potential:** None known**Toxin Potential:** None known**Comments:** "Root-like" structures of fungal growth that can become airborne and can possibly be allergenic.

When hyphae are found growing on a surface and associated with fruiting bodies and/or fungal spores, they indicate that growth has taken place and remedial action is suggested. Sometimes hyphae grow and do not produce spores. Hyphae are generally not specific to any particular type of fungus or mold type. A mass of hyphae on a surface is indicative of mold growth.

Penicillium/Aspergillus**Outdoor Habitat:** Soil and decaying vegetation, textiles, fruits. These spores are commonly observed and are a normal part of outside air.**Indoor Habitat:** Wetted wood and gypsum wallboard paper, textiles, leather, able to grow on many types of substrates.**Allergy Potential:** Type I (hay fever, asthma), Type III (hypersensitivity pneumonitis)**Disease Potential:** Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals.**Toxin Potential:** Several known**Comments:** Extremely common in indoor air in low amounts. This type of spore should not constitute an overwhelming percentage and/or be present in very high numbers as compared to the outside (control).

These two genera are grouped together because they cannot be reliably differentiated into their respective genera based solely on spore morphology.

PREPARED FOR: DOC SHANE COMPANY CLIENT ACCOUNT

TEST ADDRESS: 1234 MUIR STREET HAYWARD, CA 94544

Pithomyces**Outdoor Habitat:** Soil and decaying vegetation and their spores are easily dispersed into the air by wind**Indoor Habitat:** Wetted wood and gypsum wallboard paper**Allergy Potential:** None known**Disease Potential:** None known**Toxin Potential:** One known (sporidesmin)**Comments:** A very common spore type in the air. Can be a water indicator mold type indoors***Scopulariopsis*****Outdoor Habitat:** Soil and decaying vegetation, dung**Indoor Habitat:** Wetted wood and gypsum wallboard paper**Allergy Potential:** Type III (hypersensitivity pneumonitis)**Disease Potential:** Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals.**Toxin Potential:** Not well studied**Comments:** Easily dispersed by wind and air currents. Can grow with very little water and readily grow on wallboard when high humidity situations, e.g. closets - capable of growing on leather clothes***Smut/Myxomycetes*****Outdoor Habitat:** Soil and decaying vegetation and wood, especially dead stumps and bark**Indoor Habitat:** Not known to grow indoors, sometimes found on firewood**Allergy Potential:** Type I (hay fever, asthma), rare**Disease Potential:** None known**Toxin Potential:** None known**Comments:** These two groups are difficult to distinguish due to their "round, brown" morphology. Smuts are especially common in the environment and can be seen in indoor air samples even during the winter in homes because the spores can get trapped in carpets

PREPARED FOR: DOC SHANE COMPANY CLIENT ACCOUNT

TEST ADDRESS: 1234 MUIR STREET HAYWARD, CA 94544

Stachybotrys**Outdoor Habitat:** Soil and decaying vegetation, especially straw**Indoor Habitat:** Wetted wood, gypsum wallboard paper, cardboard boxes and ceiling tiles. This type of mold needs significant water to grow and thrive**Allergy Potential:** Type I (hay fever, asthma)**Disease Potential:** None known**Toxin Potential:** Several known (including macrocyclic trichothecenes, satratoxin F, G, H)**Comments:** Spores can be dispersed into the air when old and dry, but are wet, slimy and heavy when actively growing and thus are not easily dispersed into the air. Significantly higher numbers of spores, as compared to outside background levels, of this genus are not normal for indoor environments and indicate a current or former water problem. It is not that unusual to find the occasional *Stachybotrys* spore in the air indoors. *Stachybotrys* has several mycotoxins and has been implicated as a causative agent in disease. **HIGH CONCENTRATIONS AND LONG EXPOSURES TO STACHYBOTRYS SHOULD BE AVOIDED.**