REALTIME
A US BIOTEK LABORATORY

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Fungal Count Dx Report Form
06/28/2024

COMPANY INFORMATION

Company: Real Time Laboratories
Project: Project Doe
Location: 999 Street St. Cityville, tx 99999
Project Phone:
Project Email: NA

ORDER INFORMATION

Accession No: EN062824EM
Date of Service: 06/28/2024
Reported On: 06/28/2024
Contact: Doctor Doe

SAMPLE INFORMATION

Date of Receipt: 06/28/2024
Time of Receipt: 19:21 CDT
Date of Collection: 2024-06-27
Time of Collection: 00:00:00 CDT
Sample Type: Dust

LAB INFORMATION

Phone: 1-972-492-0419
Fax: 1-972-243-7759
Email: info@realtimelab.com
CLIA #: 45D1051736
CAP #: 7210193
Tax ID #: 0669342

PROCEDURE: FUNGAL COUNT

TYPE: Quantitative PCR (Polymerase Chain Reaction)

RESULTS:

Code	TEST	Results (Fungal Elements/ML)
EM001	Aspergillus flavus	0.00
EM002	Aspergillus fumigatus	0.00
EM003	Aspergillus niger	0.00
EM004	Aspergillus ochraceus	0.00
EM005	Aspergillus versicolor	0.00
EM006	Chaetomium globosum	0.00
EM008	Penicillium brevicompactum	0.00
EM010	Stachybotrys chartarum	0.00
EM011	Wallemia sebi	1000.00
EM012	Aspergillus penicillioides	0.00
EM013	Aspergillus terreus	0.00
EM014	Candida auris	0.00
EM015	Fusarium solani	0.00
EM016	Penicillium chrysogenum	0.00
EM017	Alternaria alternata	500.00

REPORT COMMENTS:

Dust

Director Signature

Director or Designee Signature _____

MOLD	MYCOTOXIN PRODUCED	POTENTIAL HEALTH ISSUES
Alternaria alternata	Alternariol	Spores can be found in damp, poorly ventilated homes, contributing to sick building syndrome [1]. Alternariol has been reported to be mutagenic [2].
Aspergillus flavus	Gliotoxin, Aflatoxin	*A. flavus* is the second leading cause of invasive aspergillosis in immunocompromised patients. Particularly common clinical syndromes associated with *A. flavus* include: chronic granulomatous sinusitis, keratitis, cutaneous aspergillosis, wound infections and osteomyelitis following trauma and inoculation [3, 4]. Can cause liver cancer in humans [5].
Aspergillus fumigatus	Gliotoxin, Aflatoxin	*A. fumigatus* is frequently found in homes and buildings [1]. It is considered to be an opportunistic pathogen, meaning it rarely infects healthy individuals, but is the leading cause of invasive aspergillosis (IA) in immunocompromised individuals such as cancer, HIV or transplant patients [2].
Aspergillus niger	Ochratoxin, Gliotoxin	*A. niger* produces gliotoxin, which has been identified in the sera of humans and mice with aspergillosis. Causes immunosuppression in patients [8].
Aspergillus ochraceus	Ochratoxin	Ochratoxin has been demonstrated to be Nephrotoxic, Hepatotoxic, and Carcinogenic and is a potent teratogen and immune-suppressant [8]. It has also been associated with urinary tract infections and bladder cancer [9].
Aspergillus penicillioides	Unknown	*A. penicillioides* is commonly found indoors [10]. Infection has been confirmed in pulmonary aspergillosis [11] and fungal aneurysm [12].
Aspergillus terreus	Gliotoxin, Citirin	Inhalation of fungal spores, which travel down along the respiratory tract, cause the typical respiratory infection [6].
Aspergillus versicolor	Sterigmatocystin	*A. versicolor* is one of the most frequently found molds in water-damaged buildings. *A. versicolor* is known to produce a mycotoxin called sterigmatocystin a potentially carcinogenic and hepatotoxic mycotoxin. It is primarily toxic to the liver and kidneys [7].
Candida auris	Unknown	*C. auris* can be found in healthcare facilities and can be spread through contact with infected patients and equipment. *C.auris* can cause blood stream infections, wound infections and ear infections [13].
Chaetomium globosum	Chaetoglobosins	*C. globosum* is a common indoor fungal contaminant of water damaged homes or buildings. Like *Stachybotrys*, *C. globosum* spores are relatively large and due to their mode of release are not as easily airborne as are some other molds [11].
Fusarium species	Fumonisins; Zearalenone	*Fusarium* can cause superficial infections such as keratitis or onychomycosis in healthy individuals and disseminated infections in immunocompromised patients [12].
Penicillium brevicompactum	Ochratoxin A	Producer of the toxin Ochratoxin *A. Fungal* particles depend on the relative humidity [14]. Can lead to chronic Rhinosinusitis if breathed in high concentrations [15].
Penicillium chrysogenum	Ochratoxin A	Producer of the toxin Ochratoxin *A. Fungal* particles depend on the relative humidity [14]. Can lead to chronic Rhinosinusitis if breathed in high concentrations [16]. High levels are correlated with the development of sick building syndrome [17].
Stachybotrys chartarum	Macrocyclic Trichothecenes	*S. chartarum*, commonly known as black mold, is highly toxic to humans. Nausea, vomiting, diarrhea, burning erythema, ataxia, chills, fever, hypotension, hair loss and confusion are symptoms in individuals living or working inside *Stachybotrys* infested homes and buildings [10].
Wallemia sebi	Walleminol	Spores from *Wallemia* are significant allergens. Inhalation exposure of spores can lead to conditions such as asthma, hypersensitivity, or pulmonary fibrosis [23].

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