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Stachybotrys— separating fact from hype

Last month's article stirred up a lot of talk regarding what's known about Stachybotrys, what's unproven and what's purely sensational. This article is meant to separate fact from sensationalism.

Molds, in general, are common indoor inhabitants and are NOT toxic. Some molds, including Stachybotrys, produce mycotoxins which can be toxic in certain environments. Stachybotrys is also referred to as "black mold" or "toxic mold" by the media although it is by no means the only black or potentially toxic mold. Furthermore, there are several strains of Stachybotrys and some are thought to be more problematic to health than others. Certain strains of Stachybotrys can produce trichothecene mycotoxins under certain conditions but these mycotoxins are not necessarily always produced. Detrimental effects due to exposure to some strains have

Exposure to molds can cause non-specific health problems however there are currently no tests that prove an association between a particular health issue and Stachybotrys chartarum.

been reported however, further studies are needed to determine health issues that result from respiratory exposure. One crucial variable to an individual's reaction when exposed to harmful molds is their unique biochemistry. Just as some people develop severe allergies to a particular stimulus, so to do people develop variable reactions to mold when present in similar concentrations. This

variability makes examining cause and effect relationships difficult. People who are immune suppressed as well as the young and the elderly are expected to have reactions to molds at lower concentrations than the general population. Stachybotrys chartarum was under investigation in the late 1990's as a potential cause of death in several infants in Cleveland, Ohio but the CDC was unable to prove a direct correlation. The CDC continues to examine acute idiopathic pulmonary hemorrhage clusters to further investigate its cause. Several articles are cited on the EPA's website that examine the relationship between Stachybotrys chartarum and hemorrhaging lungs in children however, these cases are rare. The link between acute idiopathic pulmonary hemorrhage and Stachybotrys chartarum is questionable and additional research remains underway to determine its relationship.

The Bottom Line

The presence of mold should never cause panic. Indoor molds are extremely common particularly where water damage or continual moisture are present. Most people may never experience negative health effects as a result of exposure to common concentrations of molds in an indoor environment. Regardless of its potential health effects, when mold is found it should be taken care of. The first step is to determine if the dwelling is subject to continual moisture or water and remedy that problem. The presence of most indoor molds is easily dealt with by using an application of one cup of bleach to one gallon of water on affected surfaces. Some items may need to be replaced such as carpet, insulation and wallboard. The CDC does not recommend special care in removing Stachybotrys chartarum from buildings. However, the Indoor Environment Management section of The Environmental Protection Agency states that "remediation of chartarum must be performed with much care to isolate and contain the spread of contamination and maintain safety of the trained remediator." Whether this is a difference in opinion is unclear. Although information regarding the remediation and toxicity of this strain vary one thing is clear – further research is necessary to accurately identify any potential risks associated with exposure to Stachybotrys chartarum.

The information contained in this article was gathered from The Environmental Protection Agency, The Centers for Disease Control and Prevention and Applied and Environmental Microbiology.



New carpet can contribute to Volatile Organic Compound emissions at home and work.

Indoor Air Quality— Carpet and VOCs

The quality of indoor air continues to receive increasing attention. Eco-friendly building materials, cleaners and air purifiers can be found throughout most hardware stores.

Many products purport to be a healthy alternative to their volatile organic compound (VOC) producing counterparts. One large source of VOC emissions in homes and businesses comes from the installation of new carpet. Adhesives along with the carpet itself emit several VOCs that can persist in the environment for extended periods of time when adequate ventilation is not available. The

Carpet Emissions Tested when Applying for the CRI's Green Label:

- Acetaldehyde
- Benzene
- Caprolactam
- 2-Ethylhexanoic Acid
- Formaldehyde
- 1-Methyl-2-Pyrrolidinone
- Naphthalene
- Nonanal
- Octanal
- 4-Phenylcyclohexene
- Styrene
- Toluene
- Vinyl Acetate

Environmental Protection Agency recommends that new carpet be adequately ventilated during installation and for a period of no less than 48 hours after installation. The CRI offers a Green Label Carpet Testing Program to identify carpet lines that adhere to low VOC emissions. The EPA suggests that consumers request carpet installers to roll out the carpet in a clean, well ventilated area in their warehouse prior to installation. Additional recommendations and information can be located on both the EPA and CRI websites.

Analysis of the Month

TO-15 / TO-17

For the month of August DataChem's Salt Lake City laboratory is offering VOC Analysis using TO-15 or TO-17 for \$200. For further details contact info@datachem.com. For a complete list of our services visit us at www.datachem.com.

To take advantage of the offer simply refer to the newsletter in your analytical request. Discount is only available at our Salt Lake City laboratory.

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