



Why is Mold such a Problem? It's More than Spores

Spores: Chemical solutions attack mold and spores on surfaces only. Other chemical cleaning solutions for mold engage in chemical warfare that attack the mold and spore structures and burn them into carbon. However, the very nature of these oxidizers is that they oxidize themselves and after a brief time the chemicals become neutralized and harmless.

Spores that have been floating in the air and/or are brought into a treated room by supply carts, equipment, air currents, humans, packaging or otherwise, continue to live, land on a surface and grow. Mold Propagules: Otherwise known as a viable mold fragments. As mold grows, a hypha (plural hyphae) is a long, branching filamentous structure of a fungus. In most fungi, hyphae are the main mode of vegetative growth. When disturbed by anything such as contact or even a gust of air, these live hyphae break into fragments and fly through the air. These propagules (their purpose is to propagate), are very small (ie .3 microns) which means they can sail through a HEPA filter's 3.0-micron matrix.

Air ducts are a major problem. When moisture in the air meets cold air, water droplets are created. This water pools in the bottom of the air ducts. Microscopic pollen provides an excellent food source. Mold grows rampantly.

MoldGuardian™ was designed to eliminate the problem with mold spores and propagules and to prevent mold growth on any surface for up to one year. If a spore or propagule land on a surface treated with MoldGuardian, that spore or propagule will remain on the surface and be unable to access any moisture for growth and or food from the underlying surface. Let surface dry completely. Same time as water.

MoldGuardian™ Features

1. Effective for all species of mold.
2. Neutral pH. Invisible.
3. Active ingredients are naturally occurring compounds.
4. Unique combination of non-toxic, biodegradable ingredients.
5. Does not discolor surfaces. Harmless to stainless steel and all metal and painted surfaces.
6. Can be sprayed on, rolled, brushed, or fogged to prevent mold growth. Dries quickly.
7. Becomes water resistant after it dries. Area ready to be occupied immediately after drying.
8. Slight lemon fragrance which disappears after drying. No protective clothing needed.
9. Effective on a wide variety of surfaces like wood and lumber, building materials, metallic and non-metallic surfaces, ceramic and grout, block, stone, and tile, vinyl, leather, and cloth, HVAC systems, fiberglass and aluminum, painted surfaces, enamel, lacquer, rubber, canvas, and steel.

10. Does not reduce or restrict work or traffic flow while being used.
11. Can be safely used around flames, electrical, fuel storage; any potentially hazardous areas.
12. You can use MoldGuardian™ without fear because there are no hazardous chemical reactions if it is mixed with or comes in contact with other chemicals.
13. Can be easily applied during the building process to help mitigate risk and the high probability of mold growth due to water intrusion or moisture problems.
14. MoldGuardian™ can also be applied after final painting, wallpapering, or other covering to prevent future mold growth or infestation from mold spores.
15. When used on a preventive or regular basis it greatly reduces time, labor, liability and other expenditures.
16. MoldGuardian™ helps to reduce the carbon footprint. This may help to give a company the capability of obtaining certain "points" or credits from various environmental agencies.
17. Possible discounts in insurance premiums.
18. MoldGuardian™ must be shaken well, immediately before use. You may spray, fog, mop or wipe product onto desired surface. It is important that the surface does not have any other active/ wet cleaning detergents or oxidizing chemicals that will interfere with
19. MoldGuardian™ Those chemicals must be completely rinsed or allowed to completely dry so that they are oxidized. MoldGuardian™ will have to be reapplied to surfaces that are cleaned with harsh chemicals or oxidizers.

How MoldGuardian™ Works

MoldGuardian™ is formulated with hydrophobic ingredients including, polyunsaturated and/or saturated esters, water insoluble antioxidants and vitamins. All these ingredients are emulsified in the aqueous solution and exist in the form of the stable emulsion.

When MoldGuardian™ is applied on the surface and solution is dried, the emulsion is disintegrated and the dried ingredients create a physical/mechanical barrier consists of a thin layer on the covered surface that protects material pores from mold spores and humidity. This physical barrier is maintained by means of Van-Der-Waal's, dipole-dipole, and other noncovalent physical binding of hydrophobic ingredients with each other. It protects the surface from penetration and growth of fungi. It also prevents the passage of water even after long or continuous exposure to moisture. Water-resistive properties of the product have created conditions where moisture required for the fungal spore growth cannot penetrate through the physical barrier. As a result, spores and/or fungal cells that were present before using MoldGuardian™ have no required moisture content and there is no mold surface growth when protected with the MoldGuardian™. Another feature of the product is that the mold spores covered by physical barrier remain on the surface and do not leave to grow on another surface.



Contact: Brian G. Hubka, (702) 858-7245
bhubka@moldguardian.com