

# Frequently Asked Questions

## Why should I use this antimicrobial?

Microbe Guard uses only EPA Registered Antimicrobials that have 29 years of safe use, used by hundreds of millions of people, is non-poisonous, non-heavy metal based and guaranteed for 25 years to prevent mold, bacteria, mildew, algae and fungus. If you own a home, building, office, have school children, have asthma, have allergies or a weakened immune system, you are affected by microbes everyday. You can now limit the amount of microbe contamination that you breathe and touch. The answer is Microbe Guard.

## How does Microbe Guard's technology work?

The active ingredient in Microbe Guard's Antimicrobials forms a colorless, odorless, positively charged polymer, which chemically bonds to the treated surface. You could think of it as a layer of electrically charged swords. When a microorganism comes in contact with the treated surface, the quaternary amine sword punctures the cell membrane and the electrical charge shocks the cell. Since nothing is transferred to the now dead cell, the antimicrobial doesn't lose strength and the sword is ready for the next cell to contact it. Note that in order for Microbe Guard's Antimicrobials to continue its effectiveness, normal cleaning of treated surfaces is necessary. Dirt buildup, paint, dead microbes, etc. will cover the treatment prohibiting it from killing microorganisms.

## What is the purpose of the silane portion of the molecule?

Silanes are extremely efficient bonding agents, which can be coupled to other molecules and then used to permanently bond those molecules to a target surface. This process modifies surface properties of building materials and transforms them to a material that will not support microbial growth.

## Is Microbe Guard's Antimicrobials safe for people and the environment?

Our EPA Registered microbe preventatives have been used safely for over 29 years. It is currently used by Nike, Reebok, New Balance, Rockport, Brillo pads, Franklin Sports, and used in: air filters, hospital drapes, hospital clothing, wound dressings, socks, baby mattresses, baby diapers and thousands of other products. The State of South Carolina is applying this product to over 22 million sq. ft. of public schools. Dade County Florida has treated 6 schools in a major study to determine how much better school children's attendance will improve with their schools treated with our antimicrobial treatment. In 1976, Dow Corning spent over \$2 million (how much is that in today's dollars) on studies and research to get the EPA registration of this product. No other antimicrobial product on the market is even close to our safe track record.

## What is the difference between other antimicrobials on the market?

Conventional products penetrate living cells and kill by way of poisoning the organism. They are designed to act quickly and dissipate quickly to avoid adverse effects to humans and animals due to their toxic ingredients. Most commercial antimicrobials used for treating building surfaces do a great job of getting a quick kill on bacteria and fungi, although most have a limited spectrum of effectiveness. The heavy metal based antimicrobials on the market leach into the environment and loses their effectiveness over time. Microbe Guard's technology takes a totally unique approach. It provides an effective initial microbial kill when applied, like the conventional methods, but it also provides long-term control of growth on treated surfaces for the life of that surface. The surface itself is modified to make it antimicrobial active. ***Our antimicrobials have over 29 years of safe use by millions of consumers and are the largest selling Antimicrobials in the World.***

## How can you determine if Microbe Guard's Antimicrobials are present?

Microbe Guard technology is based on an active ingredient that can be easily detected with the proper devices. Two methods of detection are available to demonstrate the presence or absence of the treatment.

**Is Microbe Guard's Antimicrobials permeable to moisture?**

Yes, moisture that is in or on the treated material or surface passes through the treatment. After curing, the treatment is somewhat hydrophobic (water repellent), but it should not be considered a replacement for commercial water repellents.

**Does Microbe Guard's Antimicrobials give off gases during or after application?**

No. It does not volatilize, dissipate, or leach onto other surfaces or into the environment. Its chemistry polymerizes where it is applied and forms a permanent bond that lasts for the life of the treated surface. Normal cleaning will not remove the treatment, although it can be abraded away with heavy abrasion.

**How long does the antimicrobial treatment last?**

Since the cured antimicrobial is nonvolatile, insoluble, and non-leaching, the treatment should last for the life of the treated surface. The life of a treated surface depends on a number of factors, not the least of which is surface preparation. If you treat a dirty or unstable surface, when the dirt comes off or the surface is disturbed, the effectiveness of the antimicrobial will decrease. Abrasive or caustic (pH>10.5) cleaners will also shorten effective life. In our experience, our home/office applicators have seen effectiveness for ten years or more.

**Is there regrowth after treatment?**

Microbe Guard's Antimicrobials, because of its unique chemistry, provides long-term protection against regrowth and future contamination on treated surfaces. Porous surfaces, which are contaminated below the surface, will occasionally experience some growth, which may break through a treated surface if the surface was not cleaned properly before treatment.

**What preparation is necessary prior to applying the treatments?**

New structures should be vacuumed and free of loose debris. Existing structures should be thoroughly cleaned including professional carpet cleaning prior to treatment. Contaminated surfaces should be thoroughly cleaned and any residue from cleaning agents must be rinsed from the surfaces to be treated. Once the surface is clean, application by a Certified Applicator should follow standard protocol.

**How should a contaminated surface be treated?**

Microbes can be extremely hazardous. Severe contamination with hazardous organisms may require cleaning protocols similar to those for asbestos removal. For normal contamination, solid surfaces should be thoroughly cleaned before treatment. Soft surfaces such as carpets and upholstery should be well vacuumed or professionally cleaned. Insulation can be cleaned and treated if only superficial growth on the surface is present. Insulation that has heavy growth or is damp should be removed and replaced.

**Will Microbe Guard's Antimicrobials affect the finished interior of the structure?**

Yes, it changes all surfaces it is applied to, creating an antimicrobial surface that prevents mold, fungus, bacteria, mildew and algae from growing. Since the product is applied by a unique fogging application, it can be applied to most surfaces that are not affected by minor contact with moisture. You should protect silks, rayons, original paintings and unplug any electronics prior to application. Carpets and flooring should be allowed to dry before walking on the surface. Windows should be thoroughly cleaned prior to treatment.