

SurfaceGuard⁹⁰

Long Lasting Biostatic Surface Protectant
Concentrate

SURFACE GUARD 90

Comprehensive Product Testing Report

Benton House - Titusville, FL



an EPA Registered Product

ABOUT BENTON HOUSE

Benton House is a full-service assisted living and memory care facility. They have nearly 20 locations throughout Georgia, Florida, and South Carolina. The management team at all Benton House locations strive to provide a vibrant and fulfilling community life that meets the unique needs of seniors and those with memory disorders. Like most nursing home facilities, Benton House faces some challenges in avoiding microbial growth.



NURSING HOMES EXPLORED

Many nursing home and long-term care establishments house a large number of elderly residents, frequently in close proximity to one another. This establishes the perfect atmosphere for dangerous outbreaks of communicable diseases. Communicable diseases pass on from individual to individual and are often caused by bacteria.

Our bodies have various microorganisms living both in and on them without causing any problems. Nevertheless, when people have compromised or weakened immune systems, these microbes can trigger illnesses and infections. The elderly tend to be especially susceptible to these types of infections.

The most efficient method for dealing with communicable diseases is prevention. Many aged nursing home residents already have illnesses so their immune systems and cannot fight new diseases or infections as efficiently as they used to.

INDEPENDENT LAB TESTING

Recently, the management team of Benton House requested before and after testing of the microbial growth to confirm the effectiveness of the Surface Guard 90 surface protectant. All testing was conducted by Sanders Laboratories, Inc., an independent third party laboratory.

The testing was performed at the Titusville, Florida location of Benton House. The facility continued to use its customary cleaning protocol during the testing. All rooms and areas tested were occupied for the entire test period. The initial test was conducted on March 31, 2012 with the follow-up test on May 21, 2012. The results of the test showed a significant reduction in microbes and bacteria in all eight areas of the facility that were tested including a patient room, the family room, the dining area, the north entry way, a nurses station, a public restroom, the television room, and a secured entry area.

CONCLUSIVE RESULTS

As demonstrated below, a significant decrease in microbes in all areas treated and tested at the Titusville location of Benton House was found. The chart outlines the data for the tests performed by Sanders Laboratories as well as the total percentage of decrease in microbes for each area tested.

Microbial Analysis of Environmental Swabs Aerobic Plate Count		AOAC method 990.12	
Area Tested	Initial Test	Follow-Up Test	Total % Decrease
Patient Room - Door Knob	51,000	1,500	97%
Patient Room - Restroom Light Switch	15,000	>100	99%
Patient Room - Toilet Support Left Handle	52,000	>100	99%
Patient Room - Restroom Stainless Entry Handle	33,000	>100	99%
Patient Room - Right Hand Rail Closet to Window as Facing Bed	39,000	2,300	94%
Patient Room -Tall Boy Handle	11,000	>100	99%
Patient Room - Lazy Boy Controller	5,400	>100	98%
Family Room - Right Paisley Love Seat	28,000	4,300	85%
Family Room - Right Love Seat Cushion	11,000	1,600	85%
Family Room - Right Love Seat Back Cushion	5,600	300	95%
Dining Area - Dining Room Chair #1 Seat	1,200	>100	92%
Dining Area - Dining Room Chair #3 Left Arm	860	>100	88%
Dining Area - Dining Room Chair #1 Seat	19,000	>100	99%
Dining Area - Dining Room Chair #2 Seat	4,400	>100	98%
Dining Area - Dining Room Chair #1 Left Arm	1,700	>100	94%
Dining Area -Ding Room Chair #2 Left Arm	1,200	>100	92%
Dining Area -Dining Room Right Post as You Enter Top Right	28,000	>100	99%
North Entry Way - Keypad	49,000	800	98%
North Entry Way - Door Handle-PVS	4,100	>100	98%
Nurses Station - Keyboard	38,000	2,100	94%
Nurses Station - Desktop	1,400	>100	93%
Public Restroom - Post Treatment-Bathroom Light Switch	900	>100	89%
Public Restroom - Post Treatment-Toilet Support-Left Handle	3,400	>100	97%
Public Restroom - Post Treatment Handle	2,900	>100	97%
TV Room - Coffee Table	3,200	>100	97%
Secured Entry - Employee Keypad	4,800	330	93%
Secured Entry -Door Handle	1,100	120	89%
Secured Entry - Employee Microwave Handle	5,500	>100	98%
Secured Entry - Lunch Table	400	>100	75%

SURFACE GUARD 90 Microbiostatic Antimicrobial Coating

Surface Guard 90 is an antibacterial surface protectant that prevents the growth of odor causing bacteria, fungus, mold and mildew. It can be applied to most surfaces, both porous and nonporous, and will work for up to 90 days. Because of its unique chemistry, it 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 that breaks through a treated surface.

All antimicrobials are NOT created equal. It's important to understand the basic chemical, physical, and biological properties of an antimicrobial so the best choice can be made.

Surface Guard 90 is an environmentally and user friendly antimicrobial. The product contains no heavy metals, arsenic, tin or polychlorinated phenols. It addresses the two main ecological concerns associated with leaching antimicrobials: the off gassing of toxins into the environment and the generation of adaptive organisms (superbugs). Surface Guard 90 is non-leaching and non-migrating. It is water based and has resulted in no known health issues.

THE SURFACE GUARD 90 DIFFERENCE

Most commercial antimicrobials in use today are capable of providing a quick inhibition of bacteria and fungi (although some have a limited spectrum of effectiveness). 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.

The Surface Guard 90 coating takes a totally different approach. Like conventional antimicrobials, it provides an effective initial microbial kill at the time of application. BUT, unlike others antimicrobials, Surface Guard 90 also provides long-term control of growth on treated surfaces by modifying the surface to make it antimicrobial.

PRODUCT TECHNOLOGY EXPLAINED

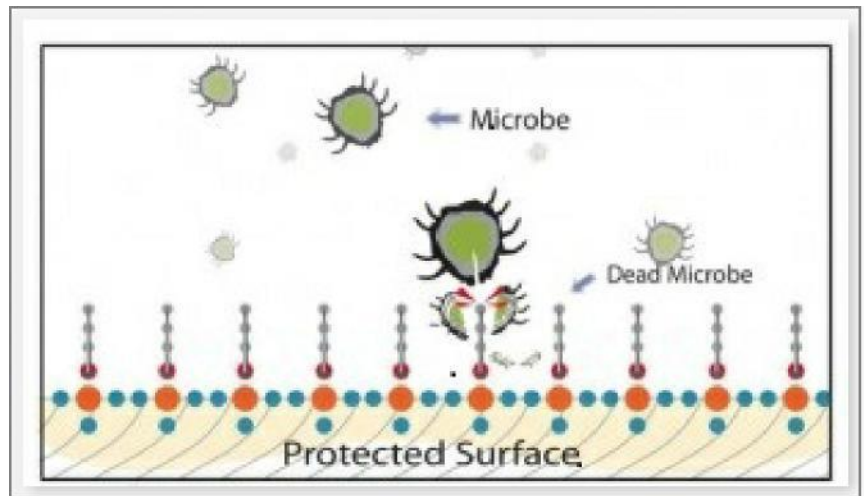
When applied to a surface or incorporated into a material, Surface Guard 90 creates a Microbiostatic Antimicrobial Coating on the applied surface that inhibits odor causing bacteria, mold and mildew.

The Microbiostatic Antimicrobial Coating forms a protective barrier that disrupts the membranes of microorganisms. This new

technology provides a perfect technique for inhibiting microorganisms without the use of unsafe heavy metals or poisons. This approach is entirely unique to the Surface Guard 90 molecule and unlike any other antimicrobial product currently on the market.

The Surface Guard 90 molecule is made up of several sections. One end of the molecule forms a strong bond to the surface to which it is applied. The surface can be both porous and nonporous. The other end of the molecule forms a microscopic bed of nails that stand straight up from the surface. This nano bed of nails disrupts the microbe's membrane resulting in its demise all without the use of heavy metals or poisons.

Because the Microbiostatic Antimicrobial Coating's methodology mechanically disrupts the membrane of the microbe, no microbial resistant "superbugs" are ever created from the treatment.



PRODUCT BENEFITS OUTLINED

- Surface Guard 90 is the only antimicrobial technology that performs without diffusion or leaching off the applied substrate.
- It protects the applied surface between cleanings
- Bound technology – unlike conventional disinfectants, poisons, phenols or heavy metals, the Surface Guard 90 technology performs while bound to the applied surface (substrate).
- Residual Efficacy – Unlike other antimicrobials, our product's efficacy remains for a long period of time. Surface Guard 90 has been independently tested for 100 standard washes and can be reapplied every 90 days.
- Porous and Non-Porous Surfaces – It is against the law to apply many antimicrobials to porous materials. The Surface Guard 90 technology allows for treatment of both porous and nonporous materials.
- No Super Bugs – Due to the bound technology of Surface Guard 90, there is no known or anticipated risk for mutation of microbes into super bugs. Other technologies work by "uploading" into the microorganism sometimes resulting in a mutation of the original microorganism.
- Shelf Life – Surface Guard 90 has a one-year shelf life or longer unopened. Once opened, the product should be used within one year.
- Ease of Use – Surface Guard 90 can be applied in or on almost any substrate. A covalent bond forms with the applied substrate to ensure durability in multiple environments including water, solvents and chemicals.
- Safety – Surface Guard 90 is a completely water-based formulation. It is easily used by field personnel. SG24 has a long safety record with many manufacturers. The product does not contain heavy metals, arsenic, tin, phenols or poisons.
- Green – Surface Guard 90 is as green as an antimicrobial can be due to its bound technology and lack of hazardous chemicals or toxins. SG24 products will eventually break down to carbon dioxide, nitrous dioxide and silicon dioxide. SG24 is the obvious choice when considering the environment and concern for super bugs.

ABOUT SG24, LLC

SG24, LLC is an innovative company based in Bolingbroke, GA. We produce several unique and cutting edge product technologies for manufacturers, janitorial, hygiene and biological surface protectors, home and business cleaning supplies, and auto care industries. Our company is working with the Sports, Food, Health Care, Construction, Travel and Entertainment, Real Estate, Marine, Hospitality and many other industries to offer proactive protection from bacteria, mold, and both porous and non-porous surfaces.

For more information regarding Surface Guard 90 Microbiostatic Antimicrobial Coating, please visit our website at : .