

Biostat-500™

Biostatic Antimicrobial Concentrate



Biostat-500 is an EPA registered, water stabilized biostatic agent that creates a durable antimicrobial barrier on all natural and manmade surfaces. Biostat-500 is specially formulated for professional remediators and disinfection technicians.

PRODUCT DESCRIPTION

Biostat-500™ is a concentrated, water stabilized biostatic formula designed for control of microorganisms on virtually all surfaces. Biostat-500 is an EPA registered microbiostatic product that provides long term antimicrobial performance. Unlike disinfectants that quickly dissipate and volatilize, the biostatic molecule forms a permanent bond to surfaces providing residual antimicrobial protection.

Biostat-500™ achieves broad spectrum performance without the use of solvents, poisons or heavy metals. Its patented, water based formulation is safe to use in all environments and does not pose an indoor environmental exposure risk commonly associated with volatile antimicrobial ingredients.

Biostat-500™ is chemically stable so it will not out-gas, leach, volatilize or dissipate over time. Antimicrobial effectiveness is achieved through a physical disruption of the cellular integrity. This antimicrobial process does not lose effectiveness over time or from microbial exposure.

PRODUCT APPLICATIONS

Biostat-500 is a versatile antimicrobial that can be applied to a wide range of natural and manmade surfaces, fabrics, equipment, furniture and furnishings. Biostat-500 is EPA registered for the following applications:

Air Filter Fabrics	Fiberfill and Foam Padding for Upholstery
Athletic Equipment and Uniforms	Fiberglass and Gelcoating
Bathroom and Kitchen Surfaces	HVAC Duck Board Insulation
Bed Linens, Sheets, Blankets	Marine and Boating Applications
Bed Mattress Pads	Outdoor Furniture, Decks, Tarps, Umbrellas
Carpets and Draperies	Uniforms, Scrubs, Protective Clothing
Counter Tops, Tables and Chairs	Undergarments and Diapers
Drywall and Washable Walls	Vinyl Flooring and Wallpaper

PRODUCT CLAIMS

The following product performance claims have been approved by the EPA:

- Provides an invisible, durable antimicrobial, microbiostatic finish on various surfaces
- Effectively inhibits the growth of bacteria, mold/mildew and algae on various surfaces
- Protects against microbial deterioration, discoloration and odor
- Effective on washable surfaces and fixtures around the home and office
- Effective on concrete, fiberglass, porcelain, stainless steel, plastic, vinyl and other hard surfaces
- Use on fabrics and carpets to inhibit the growth of odor and stain causing bacteria, mold and mildew
- Prevents deterioration caused by bacteria and fungi (mold and mildew).
- Inhibits deterioration caused by bacteria.
- Provides bacteriostatic, fungistatic, (mold and mildew) and algaestatic activity.
- Imparts anti-static properties to surfaces



APPLICATION INSTRUCTIONS

Biostat-500 is intended for use in the healthcare, commercial, residential and manufacturing environments. Biostat-500 is specially formulated to be diluted with tap water following label directions. Prior to using the product, please read label directions and material safety data sheet (MSDS) information.

Prior to Biostat-500 application, clean surfaces with OSC-500™, OMC-Pro™, MultiClean-Pro™ or PowerClean-Pro™. Approved application methods include trigger spray, low pressure pump spray, high pressure airless sprayer and ULV cold fog sprayers.

For trigger spray applications, lightly apply product until surface is slightly wet. To prevent streaking, wipe surfaces with a paper towel, cloth or sponge. Do not saturate surfaces and do not allow the product to pool. Surfaces will dry within 3 to 5 minutes.

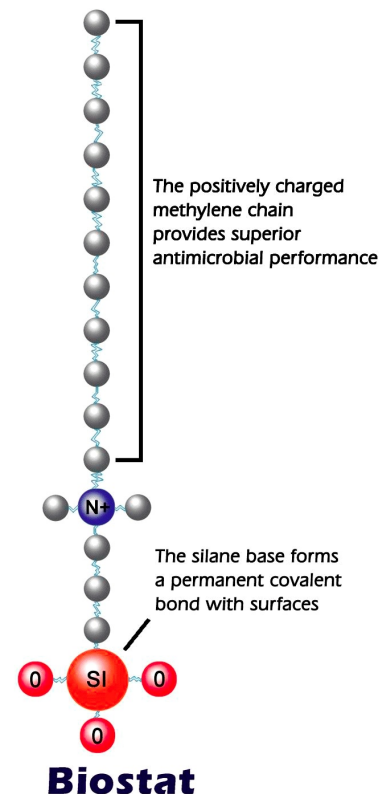
SUSTAINABLE DISINFECTION PROGRAM

Treated environmental and fomite surfaces may become abraded over time leaving them unprotected once again. Abraded surfaces should be re-treated with Biostat-500. As a basic guideline, treatment schedules are identified below, however, periodic surface testing should be conducted to determine surface durability and treatment schedule.

- Continuous Touch Points - Every 10 days
- Frequent Touch Points - Every 20 days
- Infrequent Touch Points - Every 30 days
- Isolated Touch Points - Every 1 to 3 years

TECHNOLOGY HIGHLIGHTS

- Manufactured in the USA
- ISO 9000-2008 and EPA Approved Facilities
- U.S. Patent Protected Water Stabilized Formulation
- EPA Registered as a Durable Microbiostatic
- Broad Spectrum Antimicrobial Performance
- Biostar™ and Green Building Standard Approved
- Professional Grade Concentrated Formulation
- 35 Year Proven Residual Antimicrobial Performance
- One Application Forms Permanent Bond with Surfaces
- Non-Toxic, Chemically Stable Antimicrobial Product
- Will Not Leach or Volatilize From Treated Surfaces



THE BENEFITS OF BIOSTATIC COATINGS

Biostatic coating technology was developed during the 1970's as an advanced antimicrobial agent. Due to solvent based stabilizers, the technology was only suitable for industrial and manufacturing applications. However, in 1994, a new water based formulation was patented that removed the toxic solvents from the formulation. Today, our biostatic formulations are water-stabilized allowing for safe residential and commercial use. They are proven to be non-toxic, environmentally safe and pose no known exposure hazards.

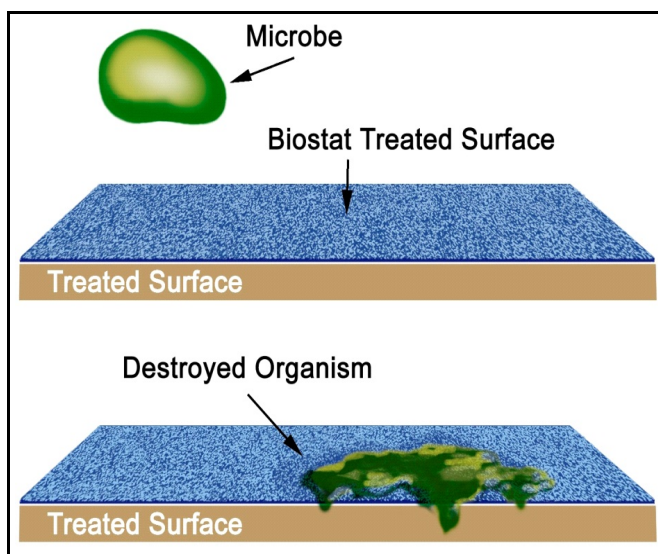
The first commercial biostatic product was EPA registered in 1996. It has been sold under different product names, however, today, the water stabilized product is marketed under the Biostat™ label by Advanced Remediation Solutions, Inc. (ARS). There are four versions of the product line that include a ready-to-use (RTU) formulation, a 5% concentrate, a 36% biostatic/disinfection concentrate and a 72% concentrate. The RTU and 5% dilutions are stabilized in an aqueous solution, while the 36% and 72% are low solvent based formations designed for infection control and manufacturing applications respectively.

HOW THEY WORK

The biostatic molecule is comprised of two parts - a polymer foot attached to a long chain of methal group molecules. When applied to a surface, the polymer foot covalently bonds to the surface while the positively charged methal chain points away from the surface. In effect, the biostatic coating resembles a series of needles bonded to a surface.

Through ionic attraction, negatively charged microbes are drawn onto the positively charged surface treated with Biostat.

Upon contact, the methal group long chained molecules of the biostatic coating penetrate and compromise the lipid bilayer of cellular membrane. As a result of intercellular hydrostatic pressure the lipid bilayer fails and the microorganism is destroyed. Cellular death is achieved without the use of toxic or volatile chemicals.



ENVIRONMENTALLY SAFE

Biostatic coatings have become the antimicrobial inhibitor of choice for the Green Building industry to control mold growth in new construction. Because Biostatic coatings are chemically stable and environmentally safe, they do not pose an exposure concern for building occupants. Antimicrobial performance is achieved through physical destruction and not through the use of poisons, toxins or heavy metals. Unlike traditional disinfectants, no dangerous offgassing, or residual volatile chemicals remain after treatment.

PROVEN ANTIMICROBIAL PERFORMANCE

The antimicrobial performance of biostatic coatings has been proven effective in test after test against a wide range of gram positive and gram negative bacteria, fungi, algae and viruses. The benefits of biostatic chemicals have been in commercial use for over a decade. Today, Biostat is being widely used for healthcare, manufacturing, institutional, commercial and mold remediation applications.



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