



SHOCK & SHIELD

Shield Application Protocol

Preparation:

Cleaning & Disinfection are essential steps in Preparing the Surface for Antimicrobial Protection. Shield is not meant to replace existing disinfection protocols. The purpose is to provide a secondary layer of protection between routine cleaning and disinfection. Complete your standard cleaning and disinfection protocol as laid out by your governing body prior to beginning.

Stage 1: Surface Preparation

Surface Cleaning

General surface cleaning physically removes all visible dirt, organic matter, and bacteria. It may include cleaning with water, mechanical action, vacuum cleaning, scrubbing, detergents, and disinfectants. Surface cleaning should always precede the antimicrobial protection process. If organic matter or grease is not first removed it may reduce the length of time the antimicrobial adheres to the surface. In most cases, general surface cleaning is always necessary.

Stage 2: Application of Shield

Safety

The safety of the applicators is extremely important. The applicator should be well versed in all cautions on product labels. An SDS- (Safety Data Sheet) should always be on file for all chemistry used. Regardless of how safe a chemical is, PPE (safety goggles, mask, gloves) should always be donned (put on), worn, and doffed (removed) properly. By combining the proper safety equipment and following guidelines as recommended, you minimize all potential problems. An



important aspect of the application process is ensuring all service personnel understand the application process. A complete and periodic review of safety procedures will help maintain a spotless record.

Procedures

Our antimicrobial molecule is a microbiostatic surface protectant. This unique product is EPA Registered, and FDA accepted for food contact surfaces. The mode of action is mechanical destruction on a cellular level. Our molecule does not rely on poisons to destroy pathogens, which can result in adaptive organisms. Rather, the pathogens are drawn to the treated surfaces and impaled on microscopic spikes. The spikes are comprised of carbon and nitrogen molecules, which rupture the cell membrane. Final stage occurs when the remnants of the pathogen are exposed to a lone nitrogen molecule. An electrical charge, then jolts the pathogen. This final contact eliminates the possibility of any adaptive organisms.

In addition, since our antimicrobial molecule is not off gassing a poison like traditional antimicrobials, the treated surface is protected for up to 90 days. The EPA has suggested this period based on the products tested efficacy. Cleaning the treated surface will have no adverse effect. In addition, surfaces subjected to elevated temperatures are protected up to 360° Fahrenheit. When storing our antimicrobial, it should be kept at a temperature between 34°-98° Fahrenheit.

Equipment

Application may be done with a variety of sprayers, small handheld sprayers, hand-pump type sprayers, backpack sprayers, electrostatic sprayers, or other types of similar spray applicators. Fogging is appropriate, as a second option. Equipment able to spray 60 to 245 microns is preferred, but not required. A fine, light mist, completely covering the entire surface is most effective. Microfiber cloth may be used to wipe the product on to a surface. Product should be placed on the surface, not the cloth, and wipe until the surface is completely covered and allow to dry.

Pre-Application Requirements

The bonding technology of our antimicrobial is a process called polymerization and requires certain surface conditions. All surfaces to be treated regardless of material must be clean and dry. Our antimicrobial is cationic in nature, has a positive charge. If bleach is used as a cleaner, it is important that those surfaces be rinsed well. Well-cleaned and dry surfaces will insure a complete bond. A complete bond will provide the longest possible efficacy.

Applying Shield Antimicrobial

Once the above conditions have been met, the process of application can start. Following all procedures and criteria for pre-applications are very important because the surface conditions have a direct impact on our antimicrobial molecule efficacy.



The first step is mixing the chemical using the proper dilution ratio, in this case, 18oz of Shield per gallon of water, or 6oz of Shield 88 per gallon of water. Fill the sprayer and pressurize the tank (if needed). Focus on high touch points, such as handles. Open all exterior compartments and coat entirety of their interior. Our antimicrobial molecule only requires a fine light mist to be most effective.

Wiping is another means of application. The first material our antimicrobial molecule touches draw out the active ingredient. If the cloth wipe is sprayed with product, you are treating the wipe. If wiping is necessary, you must spray the surface to be treated and then the wipe as well. This technique will insure adequate coverage on the surface. If the surface is delicate, such as a fingerprint reader, you may spray a copious amount on the cloth, enough to thoroughly wet the cloth but do not allow the product to drip. Wipe over the delicate surface and allow to dry

Post Application

Our antimicrobial molecule when applied to a surface will normally bond within five minutes of dry time but is influenced by several factors. These include temperature, relative humidity, porosity of materials and airflow. Sometimes it may take longer than five minutes to dry. If this is the case, the surface treated can be wiped dry after ten minutes. Since bonding takes place within that window of time, wiping will not affect efficacy. What is being removed after ten minutes is simply residual water. The active ingredient is carried in a water base solution.

If you have any questions, please do not hesitate to contact your OMNI Solutions representative.

