

PG Grass Disinfectant – How it Works

Basically, bacteria are Nature's way to degrade organic waste. Different strains of bacteria occur everywhere in nature and their function is to consume and degrade organic waste and break it down until the final byproduct is carbon dioxide and water. Most bacteria need a system pH from 5 to 8, a temperature of 50 to 90 degrees F., a food source (organic waste), and enough water or moisture to support bacterial life.

The bacteria will recognize the presence of different organic waste products in water then will swim over to the food and attach to it using a polysaccharide matrix (bio-film). Then they secrete the appropriate enzymes to break down the waste into microscopic particles that are fed to the bacteria.

The bacteria consume organic wastes, grow in size, then duplicate themselves into identical bacteria cells, and continue to replicate to cover the waste completely and eventually degrade it. Under ideal conditions (controlled laboratory environment) a bacteria colony can duplicate in size every 20 minutes. These bacteria are self-regulating because they only stay on the food source until it is degraded. After the organic waste is gone they search for more or just hibernate until more waste is added to the waste water.

The bacteria continue to consume and degrade the organic waste until it is depleted or more organic waste is added to the system. Bacteria have a normal life cycle, like any other living organism, and are affected by changes in temperature, pH, the lack of oxygen, and any possible presence of chemicals, chlorine, quaternary ammonium sanitizing compounds, solvents, caustics, acids, or other similar products that could kill bacteria or inhibit their growth.

"Spore forming" bacteria used in Purchase Green's Artificial Grass Disinfectant have the ability to encapsulate them-

selves in a hard shell and basically "go to sleep" if their environment is not able to support their growth. When the environment changes to support bacteria life and growth they wake up, recognize the presence of a food source, and continue to consume, degrade, live and die, in the waste treatment system. "Spore" type bacteria in waste containment systems or treatment systems have the ability to survive and function in the most severe environments.

Is PG Disinfectant Safe? And Has It Been Tested?

Purchase Green's Grass Disinfectant is manufactured in a facility, which has been registered to ISO 9001 2000 standards. Tight controls and stringent tests are incorporated into the production process to ensure that the products are manufactured to the highest quality standards.

- ▶ The micro-organisms/Strains in PG Disinfectant belong to Class I as defined in the Center for Disease Control (CDC).
- ▶ This Group consists of biological agents that pose low individual and community risk and are highly unlikely to cause disease in healthy workers or animals. The agents require Biosafety Level 1 containment.
- ▶ The strains are naturally occurring and are not genetically engineered or modified.
- ▶ Finished products are tested using procedures recommended by the USDA (United States Department of Agriculture), NSF (National Science Foundation) and AOAC (Scientific Association Dedicated to Analytical Excellence) to ensure that they are free of gram negatives, salmonella and shigella.

What Makes Purchase Green's Disinfectant Different from the Competition?

- ▶ Simple. Purchase-Green is the only company to bring to you the "bio-enzymatic cleaning solution" with proven results specified directly for use on artificial turf.
- ▶ Our Disinfectant is made with all-naturally occurring bacteria and there are no "genetically modified organisms" (GMO) in our product. PG Disinfectant is completely safe for people who use the product, safe for animals and pets, safe for the environment, and safe for aquatic life.
- ▶ Purchase-Green Artificial Grass Disinfectant is a true "Green Product" It is a microbial cleaner that can provide cleaning and odor control by consuming and degrading the waste that causes the odors. The residue left behind is small amount of carbon dioxide and water which evaporates.
- ▶ Since the microbes in our disinfectant are so efficient at consuming and degrading organic waste they will out-compete the harmful bacteria on the floor causing them to die. The only bacteria left are completely safe for humans.
- ▶ Purchase-Green Artificial Grass Disinfectant does not contain detergents for turf cleaning. Detergents actually create a chemical bond with grease and dirt that are sealed into the turf, and can create slippery conditions. Detergents cannot penetrate the layers of residual grime and food grease that have accumulated in the Turf. Our disinfectant will degrade old detergent residue along with the food wastes
- ▶ PG Disinfectant will flow into drainage and under the turf where organic waste spills get trapped, to provide better cleaning. Detergents alone do not clean these areas well. Our Disinfectant provides a secondary benefit of removing organic waste food sources for insects or other pests.