

PolyTurf Refresh Frequently Asked Questions

Does **PolyTurf Refresh** contain live microorganisms?

Live bacteria are the active ingredients in **PolyTurf Refresh**. These microbes have been selected from nature for specific capabilities, and then adapted to maximize those capabilities in pet waste. These highly developed strains are blended in a synergistic combination of different strains, which complement each other for maximum effectiveness.

Can the bacteria in **PolyTurf Refresh** make me sick?

Studies have been conducted to make certain that the bacterial strains in **PolyTurf Refresh** are not hazardous to people or pets. These tests include studies on inhalation, ingestion and skin contact. Common antibiotics kill all of the bacteria; however it may be considered an eye and skin irritant due to some of the chemical components used. It is not recommended to expose skin to the product for long periods of time and hands should be washed after handling product.

Do these microbes grow?

The microbes in the initial dosage multiply to provide an ever-increasing population. These microbes attach to surfaces in pet waste or rubber/sand infill where they continue to consume waste and organics converting them to carbon dioxide, water and more bacteria. Unlike chemical products, **PolyTurf Refresh** offers better value since the microbes increase in numbers when applied.

How do **PolyTurf Refresh** microbes react with microbes already present in pet waste?

Every niche in our environment supports microbial growth and has already established a population of “naturally occurring” strains. As **PolyTurf Refresh** is added to the environment, they grow and establish a place in

that population. They work with the naturally occurring bacteria strains often breaking down large, more complex molecules into smaller units that actually feed many of the native strains. In some applications initial dosage may be higher to assist in establishing that position in an already established ecosystem.

Why are chemical ingredients added with the microbes?

Certain formulation ingredients are added to **PolyTurf Refresh** to “jump start” the action of microbes. By adding a low level of surfactants, some of the waste will be emulsified to become more readily available to the microbes as food. Microbes are extremely small. Billions of microbes in a pile would not be visible to the eye. Pet waste on the other hand, is large and quite visible. Tiny microbes can only work at the waste/urine interface. As waste is emulsified it greatly increases the surface area where the microbes can do their work. Only small amounts of surfactant are required to initially assist the microbes. In addition to surfactants, micronutrients and small amounts of lipase enzyme may be added to assist in initiating microbial activity.

What is the difference between microbes and enzymes?

Microbes in **PolyTurf Refresh** formulations perform their work by producing enzymes. Enzymes are catalysts in biochemical reactions that breakdown organics and urine. Enzymes also accelerate the growth of microorganisms. Enzymes are generally very specific. Their activity depends on the molecular shape of the enzyme fitting into the shape of the compounds in the reaction. Microbes are often called “enzyme factories” because they can detect the organics present and then create the proper enzyme to breakdown those organics.