TESTING SUMMARY: 99+% INACTIVATION OF BACILLUS SP. IN 24 HOURS

Bacillus cereus is a gram-positive, facultatively aerobic spore-former whose cells are large rods and spores do not swell the sporangium. These and other characteristics, including biochemical features, are used to differentiate and confirm the presence of B. cereus. These characteristics are shared with B. cereus var. mycoides, B. thuringiensis and B. anthracis. B. cereus food poisoning is the general description, although two recognized types of illness are caused by two distinct metabolites. All people are believed to be susceptible to B. cereus food poisoning.

Source: U.S. Food and Drug Administration
Tested by Kansas State University Inactivation Rate 99+%
TESTING SUMMARY: 99+% INACTIVATION OF BACILLUS SP. IN 24 HOURS

Hydrogen Sulfide (Rotten Eggs) - 80% reduction
Methyl Mercaptan (Rotten Cabbage) - 100% reduction
Carbon Disulfide (Vegetable Sulfide) - 30% reduction
Butyl Acetate (Sweet Banana) - 100% reduction
Methyl Methacryline (Plastic) - 100% reduction

Gas Chromatograph/Mass Spectrometer test performed by Nelap Accredited Lab on airborne chemical compound reduction using RGF’s Advanced Oxidation Technology.

Tested by GC/MS Nelap Accredited Independent Lab
Testing Summary: Formaldehyde Levels Less Than 0.05ppm in 4 Hours

Formaldehyde is a colorless, flammable, strong-smelling chemical that is used in building materials and to produce many household products. It is commonly used as an industrial fungicide, germicide and disinfectant. When formaldehyde is present in the air at levels exceeding 0.1 ppm, some people may experience adverse effects including burning sensations in the eyes, nose, and throat, watery eyes, coughing, nausea, as well as skin irritation. The purpose of this test was to evaluate the effect RGF’s Advanced Oxidation Technology has on formaldehyde.

Tests were conducted in a Class II Bio test chamber by Kansas State University.
ETHYLENE TESTING SUMMARY: ETHYLENE LEVELS WERE REDUCED 85+% WITHIN 12 HOURS

Ethylene is a naturally occurring small hydrocarbon gas that serves as an aging hormone in plants. Ethylene gas will ripen tomatoes, bananas, pears and a few other fruits postharvest. Premature ripening caused by naturally occurring ethylene gas will negatively influence the fruit’s texture and color, as well as shorten the time cycle for processors to ship to market. By reducing ethylene gas levels, PHI treatment provides the packing house with more time to process and ship before spoilage. A controlled test was performed where high levels of ethylene gas were introduced into a test chamber (25ppm), and when treated with a PHI cell the gas levels were reduced to 3.6 ppm in 12 hours.

Tests were conducted using an ASHRAE compliant HVAC testing system connected to a secondary test chamber.