Bio-Catalytic Environmental Solutions

Bio-Organic Catalyst, Inc. (BOC) of California has introduced the most advanced environmental solutions package of product lines for the facilities management industry based upon its breakthrough bio-catalytic technology formulations.

The BOC environmental solution products represent a fundamental evolution in addressing the chronic environmental challenges that perplex nearly every facilities manager. These new bio-catalytic cleaners provide a way to actually lower operating costs through alleviating expensive maintenance procedures, while improving the quality of life within their facilities.

New Technical Breakthrough: Bio-Catalytic Cleaners

This technical breakthrough is based upon a new understanding of how to utilize the inherent transformative powers that exist within nature for restoration and a return to ecological health. It is vitally important to grasp the underlying mechanisms that make these new, environmental bio-catalytic technology products so powerful and effective in treating harmful pollutants, but incredibly safe and beneficial to the health of the ecology and people.

The BOC products are designed around the discovery that the key to treating our pollution is to unlock the inherent capabilities existing within a natural system to restore itself. They unlock a two-fold transformation cycle that can be applied to all organic wastes: 1) Wastes are naturally degraded, and dissolved, through breaking the molecular bonds of organic wastes, and 2) The respiration of the microscopic ecologies within nature is the limiting factor in restoration of our land and public waters.

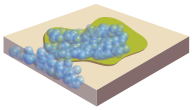
Bio-catalytic reactions are able to break the molecular bonds of wastes through a unique ability called 'beta-oxidation', which acts across the entire spectrum of organic structures, causing them to break apart into their constituent components as the molecular bonds are broken down for a phenomenally deep and thorough cleaning. Accelerating the transfer of oxygen across membrane barriers, such as rotting organic wastes, instantaneously renders noxious odors neutralized.

Odors emanating from a garbage dumpster.

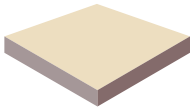
Odor vapors are neutralized by oxygen transfer when treated with Eco-Cat Clean™.

The limiting factor in natural ecologies to maintain optimal health is nearly always linked to septic conditions that are the breeding ground for pathogenic organisms that cause infections and sickness. These same conditions are the source of chronic odors when organic wastes are left behind in substrates of floors and fine cracks, which cause low levels of a background scent. This is very prevalent in bars, pubs, restaurants, kitchens, drains, meat rooms, and bathrooms.

A protective layer of slime builds up over the bacteria. The slime prevents oxygen from getting to the bacteria.



Eco-Cat Clean™ initiates an immediate catalytic breakdown of fats, oils, greases, soils and hydrocarbons.



Surface counter, after it's been treated with Eco-Cat Clean™.

Our living universe is teaming with immense 'dark matter' which contain trillions of microscopic flora. This invisible realm of breathing and reproducing entities consume the waste streams of our world and consumers of food and drink. By accelerating the transfer of, primarily oxygen gas exchanges, a essential and fundamental catalyst of ecological restoration, the BOC products act directly on nature's own inherent restorative mechanisms to obtain ultra-clean facilities by accelerating the transfer of primarily oxygen gas exchanges, which is an essential and fundamental catalyst of ecological restoration.

Traditional Cleaners Leave Toxic Residues

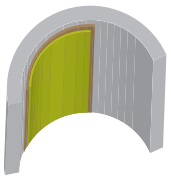
Our pollutants are slowly destroying our general ecological health through overloading too much organic wastes into our environment and waters. Due to our high population densities, and heavy human organic output, tremendous strain is put upon the biological ecology that is ultimately called upon to transform those pollutants back into the essential elements required for the health of our soils and waters.

The traditional cleaning model of rendering surfaces disinfected and clean of visible wastes has historically been relatively effective in managing public health and water contamination that causes infectious diseases to be propagated and transmitted. Cleaning products on the market today offer excellent surface cleaning and sanitation capabilities. However, they are severely limited in addressing the chronic issues of treating septic conditions and the ultimate restoration of wastes, which leads to the formation of odors and blockages in drain lines, and the discharges of pollutants, including hydrocarbons, in our water discharges.

New concerns have arisen in the spread of infectious strains of pathogens and diseases due to the mutations of the microbes becoming resistant to the disinfectants used. Additionally, it has now been recognized that algae and bacteria will form microscopic surface fouling, which are exceedingly difficult to remove through traditional cleaning agents, and are a key contributor to this phenomena of infectious disease propagations. Over the past two decades, consumers and facilities managers have become educated to the toxic and detrimental long-term effects of traditional cleaning agents to people's health due to the extended exposure of toxic chemicals.

New formulations of cleaning products have entered the marketplace with much lower risk profiles compared to these traditional cleaning agents. These 'Green' cleaning products offer a healthier alternative to exposure of toxic chemicals, and generally offer cleaning results that are comparable to toxic cleaners. However, they are, by definition, unable to make sanitation claims, as they do not 'kill' germs.

There has been a proliferation of bacterial/enzyme-based product lines, which purport to introduce specific bacterial strains that seek either to consume chronic, hard to treat wastes such as fats, oils, and greases, which tend to stick to surfaces and accumulate within drainage lines, or enzymatic blends, which offer an ability to break the molecular bonds of certain organic wastes and have been able to capture a small percentage of the marketplace where fats, oils, and grease blockages occur and are successfully able to be cleaned by a less toxic approach than traditional caustic-type cleaners.



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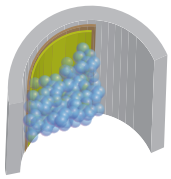
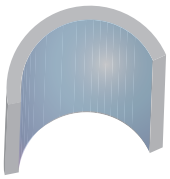


Eco-Cat Clean™ initiates an immediate catalytic breakdown of fats, oils, greases, soils and hydrocarbons.



Drain, after it's been treated with Eco-Cat Clean™.

BOC products offer full spectrum cleaning, are safer, and work more effectively on the long-term cleaning challenges which every facility manager must contend with than traditional toxic, caustic, oxidizing products.

A New Green Cleaning Model
Advanced Bio-Catalytic Cleaners

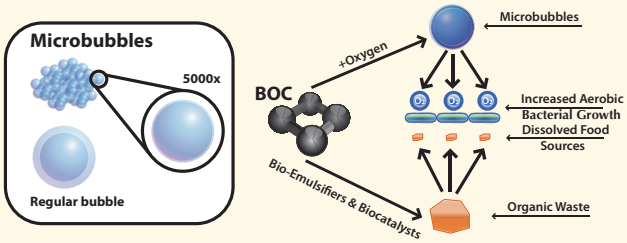
There is a truism that a cleaner surface is a safer surface. This seems so obvious on a practical level, but for years facility managers and cleaning professionals have been told that disinfection agents are essential for eliminating germs on surfaces. Moreover, over the past few years, the new mantra is 'go green' as consumers and facility managers are now told that traditional toxic sanitizers are causing immune problems in children, the elderly, and highly sensitive individuals. What is the best solution to these diametrically contradictory cleaning models?

The Advanced Bio-Catalytic Cleaning model is one that fundamentally addresses, the deepest and most complete elimination of organic wastes and toxic residues that may harbor or support biological pathogenic cultures. The first step is to provide a thorough cleaning of all surfaces, drains, and any and any area that may entrap biological film growth, and lead to the proliferation of pathogens. At this point, any sanitizer being applied will only be required to sanitize a highly prepared environment. The ultra-clean surfaces allow for maximum contact time with any remaining pathogens, and lead to a reduction of any toxic residues post-cleaning.

CLEANING ORGANIC WASTES

BIO-CATALYTIC FACTORS FOR EXCEPTIONALLY DEEP CLEANING

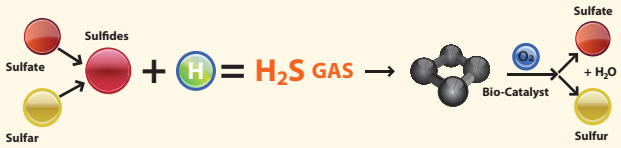
- Initiates an immediate catalytic breakdown of wastes,
- Eliminates the accumulation of fouling and microscopic scum,,
- Maintains drains and interceptors free flowing with no odors.



ODOR ELIMINATION

SUPERIOR ODOR CONTROL

- Oxidizes noxious gases through oxygen transfer,
- Establishes more oxygenated and healthy aerobic biological conditions,
- Instantaneous odor neutralization on contact.



There is a remarkably refreshed atmosphere created for employees and customers where a thorough, deep cleaning of problematic areas within a facility is done, especially drains and areas of moisture. Long term, the corrosion damage that occurs when residues and biofilms accumulate on surfaces, and drain lines, can provide operation cost savings. Surfaces are cleaned so deeply and thoroughly that they look much like the day they were acquired. Odors are not only eliminated, but the conditions that cause odors to evolve are eliminated and restored.