



BIO-ORGANIC CATALYST
THE POWER IN NATURE®

PRODUCTS & APPLICATIONS

Products

All Bio-Organic Catalyst products are produced in the United States and must meet the highest standards of quality. These products are not only completely safe and non-toxic, but offer a new model for green chemistry that improves the health of ecosystems. BOCs provide economically compelling benefits to environmental professionals, bringing practical and cost saving advancements to wastewater treatment, water clarification, and industrial and commercial cleaning. BOCs offer substantial operational optimization in aquaculture, agriculture, biological film growth, mineralization, and hydrocarbon remediation applications.

AD-Cat™

Bio-Catalytic Treatment for Anaerobic Digestion

Clear-Cat™

Bio-Catalytic Water Conditioning

Eccomate®

Municipal & Industrial Odor Control, Fats, Oils and Grease

Eco-Cat™

Bio-Catalytic Treatment Solid & Liquid Wastes, Fats, Oils and Grease

Eco-Cat Clean™

Bio-Catalytic Cleaning & Odor Control, Fats, Oils and Grease

Eco-Cat Clean™ General Purpose Cleaner

Bio-Catalytic Cleaning Solution

EcoSystem Plus®

Bio-Catalytic Water & Sludge Treatment, Fats, Oils and Grease

Fiber-Cat™

Bio-Catalytic Water Treatment

Nontox®

Bio-Catalytic Treatment of Petroleum Hydrocarbons

Phyto-C₃™

Water/Soil Conditioner

Pool-Cat™ and Spa-Cat™

For Sparkling Clear Water

Applications



Agriculture

Bio-Catalytic Soil Conditioning & Nutrient Optimization

- ✓ Keeps irrigation lines free of scale and biofilm
- ✓ Releases nutrients & microorganism activity
- ✓ Improves plant growth and yields



Anaerobic Digestion

Optimizing Anaerobic Digestion Systems

- ✓ Increases bio-methane yields
- ✓ Reduces volume of solids and increases quality
- ✓ Reduces odors



Aquaculture

Improvement of Aquaculture Operations

- ✓ Improves available dissolved oxygen
- ✓ Reduces environmental stress on stock
- ✓ Reduces/eliminates phytoplankton growth



Bio-Catalytic Cleaning

Advanced Bio-Catalytic Solutions

- ✓ Makes drains free-flowing
- ✓ Treats wastewater discharges 'at-source'
- ✓ Non-toxic, biodegradable, and non-allergenic



Composting & Animal Care

Odor Control & Accelerated Composting Rates

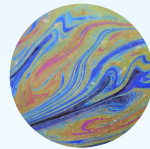
- ✓ Neutralizes odors on contact
- ✓ Accelerates composting rates
- ✓ Improves quality of compost



Facilities Management

Environmental Solutions

- ✓ Ultra-deep cleaning
- ✓ Neutralizes odors on contact
- ✓ Eliminates hazardous chemicals



Hydrocarbon Cleaning/Remediation

Accelerated Degradation of Hydrocarbons

- ✓ Immediate rise of flash point of fuels
- ✓ Immediate action on insoluble TPH compounds
- ✓ Deep cleaning of substrates of TPH pollutants



Odor

Odor Control Management

- ✓ Neutralizes odors on contact
- ✓ Enhances aerobic biological conditions
- ✓ Very cost effective



Paper & Pulp

Improving Environmental Maintenance

- ✓ Eliminates the formation of biological film
- ✓ Increases oxygen transfer rates
- ✓ Reduces manufacturing downtime for cleaning



Wastewater Treatment & Collection Systems

Aeration, Biosolids, and Collection Systems

- ✓ Increases dissolved oxygen
- ✓ Reduces energy use
- ✓ Reduces sludge volumes



Water Clarification

Water Clarity & Mineralization Treatment

- ✓ Increases dissolved oxygen
- ✓ Reduces chemical odors (VOCs)
- ✓ Eliminates mineralization buildup

BOC Products Meet EPA & USDA Requirements





BIO-ORGANIC CATALYST
THE POWER IN NATURE®

TECHNOLOGY

Bio-Catalytic Technology

The bio-catalytic compositions (BOCs) of Bio-Organic Catalyst, Inc. offer an entirely new technological breakthrough within the traditional water treatment and cleaning chemistries marketplace. BOCs are all based upon a breakthrough technological understanding of how to unlock the inherent transformation power of natural biological pathways. The BOCs products contain no bacteria, and are completely nontoxic and biodegradable. BOCs are built upon the powerful bio-catalytic capabilities of a fermentation supernatant, derived from plants and minerals, offering a highly enriched and concentrated nutrient source. This is blended with surface modifying components into a very powerful liquid concentrate which, in water, create ultra-fine microbubbles that act as a platform for highly accelerated chemical and biological reactions for much higher conversion rates within water and solid waste treatment.

Cleaning Organic Wastes

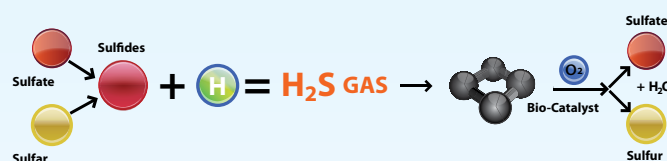
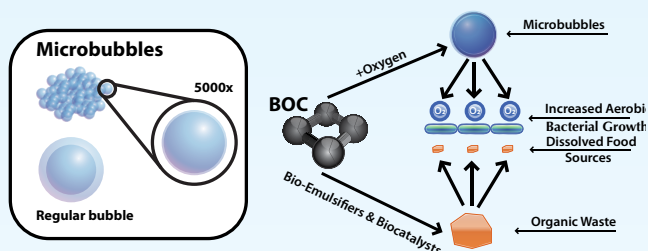
Bio-Catalytic Factors For Exceptionally Deep Cleaning

- Initiates an immediate catalytic breakdown of wastes,
- Eliminates the accumulation of biofilms 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.



Bio-Organic Catalyst®

- ✓ Establish the conditions for rapid oxygen penetration into the cell wall of the microorganisms.
- ✓ Increase the volume of biogas yields in anaerobic digestion system through increased solubilization of components of waste stream.
- ✓ Provide highly enriched bio-available nutrients required for optimizing biological transformation of organic pollutants.
- ✓ Significantly enhance the reduction of discharges in wastewater treatment facilities.
- ✓ Degrade biological film growth, improving health care safety, reducing contamination and corrosion.
- ✓ Degrade mineralization within tanks, pipes and filters.
- ✓ Cleave (hydrolysis) the molecular bonds of fats, oils and greases (FOGs) to glycerol and fatty acids.
- ✓ Offer superior performance in eliminating noxious and hazardous (odors) volatile organic compounds (VOCs).
- ✓ Has the ability to substantially speed up the remediation of petroleum hydrocarbons (TPH).
- ✓ Dramatically improves the microbial vitality in indigenous ecologies.

Bio-aquatic Toxicity and Safety Studies

The BOC Seal of Safety represents our commitment to meeting the highest standards of safety and bio-aquatic non-toxicity to all living organisms. BOC product formulations have undergone rigorous independent testing, including leading recognized EPA certified laboratories. The product compositions have shown non-toxicity ratings far exceeding generally available green cleaners and traditional chemical based products. Not only are our BOC compositions extremely safe, they also have important benefits to the downstream systems or water bodies they impact.

There are many different aspects to consider when accessing the safety and toxicity profile of a chemistry:

- One, is the sensitivity of humans and animals to exposure to the chemistry (e.g., skin, eyes, lungs). BOC has shown to present little, if any, sensitivity in this regard.
- Second, is the biodegradability over time of the chemistry. BOC has shown an ability to accelerate the natural biological reduction rate within ecosystems or engineered wastewater treatment systems.
- Third, bio-aquatic toxicity testing of any chemical compound in EPA testing protocols is tied the toxicity of that compound on highly sensitive shell fish. This provides the basis for the EPA testing and ratings (LD 50). BOC showed ratings of over 200 ppm to 316 ppm—much higher than almost any chemical, green or otherwise, on the market today.

