

CARNIE CAP*

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Patent #5826398 #6073415 CAL-OSHA #C-1721-AG

Rebar Safety need not cost our Earth

Carnie Caps are now 100% Biodegradable

Most of us agree that our planets resources are worth saving. We at Carnie Cap have refined our product to ensure that once disposed of in landfill, they will cause the minimum impact to the environment by fully biodegrading over time to help ensure that we pass on a cleaner planet to future generations.

With many private and municipal clients awarding contracts based not just on price, but also on the green practices and materials that contractors use, isn't it nice that Carnie Cap can now assist you with both?

Watch how easily they are fitted!

Call us for more examples

Correctly installed, the Carnie Cap system will withstand a 250-pound weight dropped from 10ft without the rebar protruding, thus considerably reducing the possibility of impalement.

CARNIE CAP INC. • P.O. Box 58 • East Moline, IL 61244

NO MORE CAPPING EVERY REBAR!

Guard against impalement and remain OSHA compliant with the one & only Carnie Cap™ system.



CAL-OSHA APPROVAL #C-1721-AG · National OSHA Compliant

CARNIE CAP™ is the most effective way to cap exposed rebar and the danger it can create at your job site - worker impalement. When subject to impact, the weight is distributed over the entire protective system. Works with horizontal, vertical and incline applications and is easily assembled by your crew using 2x4 or 2x6 lumber. Weighted by the lumber, these caps rarely fall off or become part of the back fill. Fits rebar sizes 3-9 and 5-19.

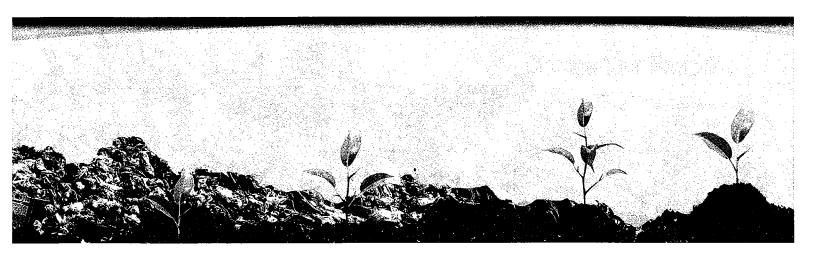
Patent #5826398 & #6073415

Visit our website: www.carniecap.com

Phone: 888-743-7725 • FAX: 888-308-3836







A world without plastic – hard to imagine.

Most companies that make or use plastic products share our environmental concerns about the production and disposal of plastic. Everyone is looking for a solution that maintains the benefits of traditional plastics and yet reduces their company's environmental footprint in a practical and cost-effective way. **We have your solution.**





Eco-One® is an organic additive that renders products manufactured from plastic resins biodegradable in landfills and composting environments. Biodegradation facilitated by Eco-One® has been confirmed using ASTM D5511 which validates methane off-gassing, a critical output of biodegradation in landfills.

A proprietary blend of organic compounds, Eco-One® is melt-compounded into a masterbatch carrier resin and then pelletized.

Finally, there is a cost-effective, easy-to-use solution for brand owners to provide consumers truly biodegradable plastic packaging.



100% BIODEGRADABLE



100% ORGANIC & NON-STARCH BASED



100% RECYCLABLE



ASTM TESTED & VALIDATED



RENEWABLE ENERGY SOURCE Methane Off-Gassing for

Alternative Energy Use

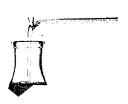
COMPLIANT

with Food Additive Provisions in the Federal Food, Drug, and Cosmetic Act

Change your footprint, not your process.

It is easy to use and will run under existing processing conditions. The addition of Eco-One® does not change the manufacturing process. Approximately 1% Eco-One® is added into the plastic production process in the same manner as a color concentrate.

Your product, just better.



SAME PROPERTIES

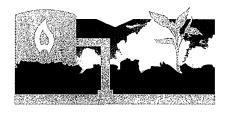
Eco-One® becomes part of the polymer matrix.

There is no effect to the chemical or physical properties of the plastic. Plastic products have the same tensile strength and identical performance, requiring limited shelf-life testing.



PERFORMANCE UNCHANGED

Products will perform just as well in their intended applications and usage conditions. Attributes last until the product is discarded into an active microbial environment.



BIODEGRADATION

Through a series of chemical and biological processes in a microbe-rich environment, Eco-One® ultimately breaks down the plastic into inert humus (makes soil richer), methane (can be converted to energy), and carbon dioxide.

Formed in January 2010, EcoLogic(SM) owns, manufactures and markets Eco-One® brand of additives for plastic products worldwide.

Our goal is to drive value for our customers by providing solutions to meet increasing government, industry, and consumer demands for environmental sustainability and biodegradability.



Let us help you build a greener future.

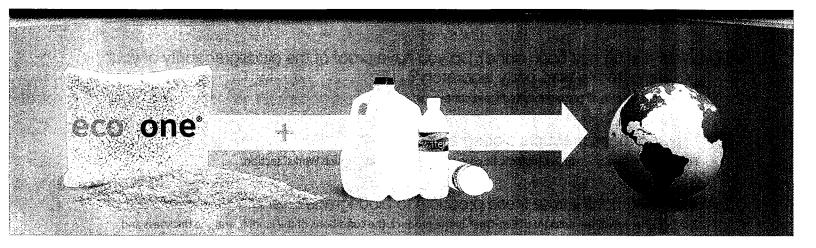
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Visit us at www.ecologic-llc.com

Proud members of National Recycling Association, Flexible Packaging Association and Project Network Members of EPA's Methane-to-Markets Program.

Corporate Headquarters: One Lincoln Centre 18W140 Butterfield Road, STE 1180, Oakbrook Terrace, IL 60181 www.ecologic-lic.com 630.859.0490







- What does ECOLOGICSM do?

 EcoLogic owns, manufactures and markets Eco-One® brand of additives for plastic products worldwide. Eco-One® is an organic additive which renders traditional plastic biodegradable in landfills and composting environments.
- Are these products the same as starch or sugar based plastics (examples: PLA, PHA, PHB, etc.)?

 No. Eco-One® based plastics are not similar to corn or sugar based plastics in their properties, how they function or how they biodegrade.
- Is the plastic with Eco-One® the same as oxo-biodegradable plastic?

 No. Oxo-biodegradable plastics require oxygen and UV light or heat to biodegrade and thus will not biodegrade in landfills. Products using Eco-One® do not require either UV light or oxygen to biodegrade and will, biodegrade at any depth in landfills.
- Are these products recyclable?

 Yes. Products using our Eco-One® additive are 100% recyclable. There is no change in intrinsic viscosity of the plastic after adding Eco-One®.
- Is your organic additive FDA compliant?

 Yes. Our additive is FDA compliant for contact with food in polystyrene (PS), polyolefin (all polyethylenes and polypropylenes) and polyethylene terephthalate (PET) applications. It has 3rd party verification by Keller and Heckman LLP.
- Does Eco-One® and/or products made with Eco-One® have a limited shelf life?

 No. Unlike both PLA and Oxo products, Eco-One® has a very long shelf life and products made with Eco-One® have the same shelf life as they would have had without Eco-One®.

- Does Eco-One® have any special storage requirements?

 No. Unlike Oxo or PLA, Eco-One® does not have special storage requirements.
- What testing has been done? Do you have proof of the biodegradability of your products from a third party laboratory?

 Yes, We can furnish all testing results. Please contact us.
- 9 How do these products biodegrade?

 For details, please go to www.ecologic-llc.com and check-out our "How It Works" section.
- How long does it take these products to biodegrade in landfills?

 This will depend on the amount of Eco-One® in the product, the conditions of the landfill, and the thickness and composition of the product. The average landfill is a very good environment for biodegradation because it is warm, moist, and full of soil micro-organisms and food waste that cause the micro-organisms to eat the plastic. We believe complete biodegradation will take place on average between 9 months to 5 years.
- Are any of the ingredients in the additive harmful to people or to the environment?

 No. Our additive is 100% organic and is in compliance with FDA standards for contact with food.
- Will active microbes in food (meat, cheese, etc.) or lawn care products start the biodegradation process in normal storage conditions such as a warehouse or store shelf?

No. Eco-One® attracts oleophilic bacteria (oil eating bacteria) that are present in landfills. The active microbes in food or dairy products or lawn care products are not oleophilic and not the "super" colony of microbes you find in landfills, composting sites, or waste water sludge plants.

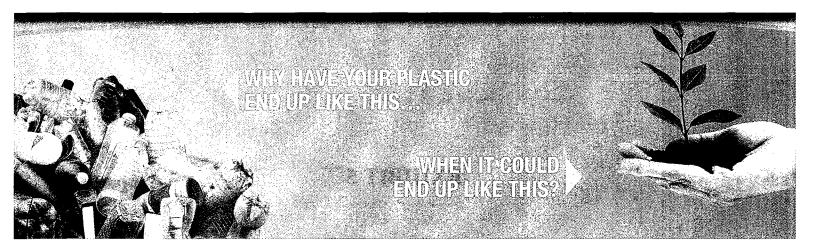
Let us help you build a greener future.

For more information contact:
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Galen Killam at 920.558.4903 | gkillam@ecologic-llc.com
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The Mechanism of Biodegradation using Eco-One®

Plastics (or polymers) are made of long molecular chains of organic molecules called monomers. Polymers do not exist naturally and most are designed to be incredibly stable – as a result they do not easily biodegrade and will last in the environment for centuries and possibly forever. They are air-tight and water-tight.

Eco-One® is an organic additive that causes plastic to biodegrade through a series of chemical and biological processes when disposed of in a microbe-rich environment such as a landfill or composting site. It allows the plastic to be consumed (as a food and energy source) by the microbes.

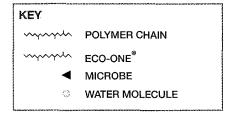
1. FORMATION OF BIOFILM

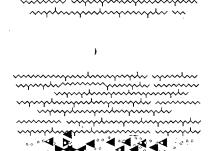
Eco-One®, acting like a surface-active agent, renders the hydrophobic base resin much more hydrophilic in the presence of microbes. This facilitates a rapid formation of a moisture-borne and microbe-rich biofilm on the surface of the plastic.

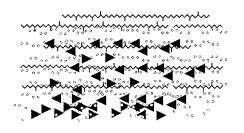
Enzymes secreted by microbes activate the hygroscopic properties of Eco-One[®]. This allows moisture to be retained thus facilitating an intimate adhesion of the biofilm to the plastic.

2. EXPANSION OF THE POLYMER MATRIX

Aggressive accumulation of water expands the plastic matrix and gives the microbes access to the entire polymer matrix. The most likely points of attack on hydrocarbon polymers are at or near the chain ends.



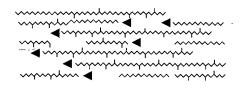




3. INITIAL BREAKDOWN OF POLYMER CHAINS

The microbes break down the larger "synthetic" polymer chains into simpler "organic" monomers thus allowing for the consumption of the entire polymer matrix. In the process, they secrete certain signaling molecules that other microbes can detect. This signaling process, called quorum sensing, is an invitation to others to come join the feast.

Volatile organic fatty acids, hydrogen, and carbon dioxide are formed in the initial stages.

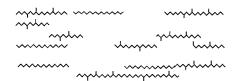


4. BREAKDOWN CONTINUES

Different types of microbes join the feast. Each one uses different elements of the polymer and/or various by-products of the intermediate biological reactions as a food source, breaking down the complex polymer chains.

Certain enzymes (from microbes) begin reducing the complex polymer branching while others look for bulkier chains similar to fatty acids.

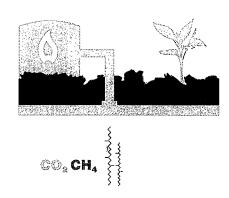
A syntrophic environment containing diverse species of microbes is established to complete the complex chemical steps of biodegradation. Throughout this process, microbes continue to multiply through quorum sensing.



5. FINAL STAGES OF BREAKDOWN

The molecular weight reduction has occurred on chains of all lengths in the original plastic material matrix. During the biodegradation process the molecular weight of the plastic material is reduced and the molecular weight distribution is broadened.

As individual polymer chains completely biodegrade, biomass (humus), and biogases (methane and carbon dioxide) are left behind. The carbon dioxide produced in the intermediate steps is being consumed in each subsequent step; therefore, not much is left at the end. The methane can then be captured for energy use.



Let us help you build a greener future.

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