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NO MORE CAPPING EVERY REBAR!

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



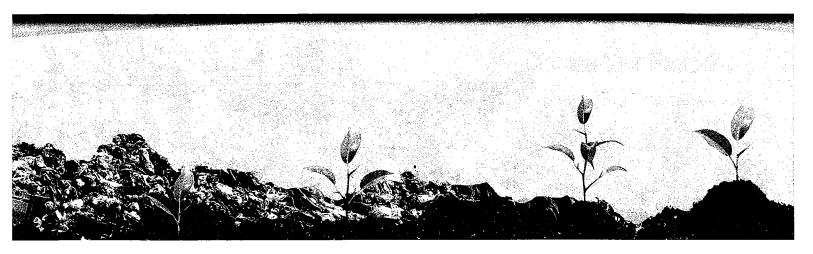
CAL-OSHA APPROVAL #C-1721-AG · National OSHA Compliant

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



Product Overview



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



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.

SIGDEGRADATION

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.

eco one

Let us help you build a greener future.

For more information contact: Sachin Shah at 630.869.0492 | sshah@ecologic-llc.com or Galen Killam at 920.558.4903 | gkillam@ecologic-llc.com Visit us at www.ecologic-llc.com

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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

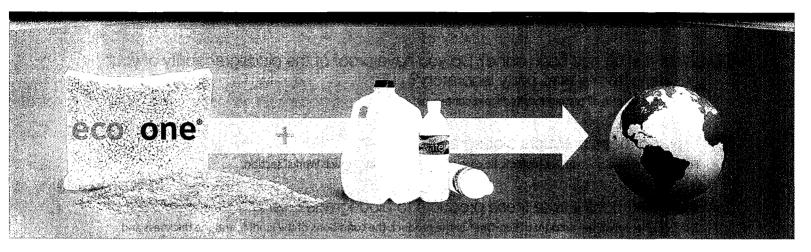


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■ What does ECOLOGICSM do?

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.

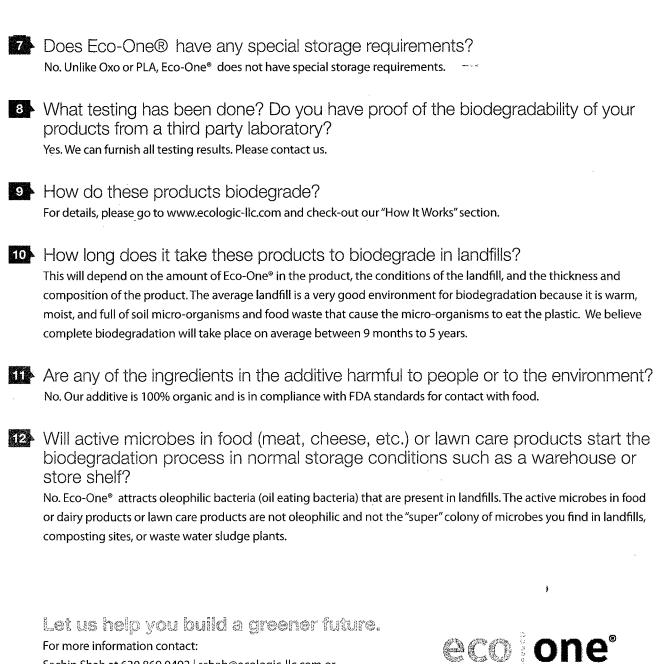
Is the plastic with Eco-One® the same as oxo-biodegradable plastic? No. Oxo-biodegradable plastics require oxygen and UV light or heat to biodegrade and thus will not biodegrade in landfills. Products using Eco-One[®] do not require either UV light or oxygen to biodegrade and will biodegrade at any depth in landfills.

4 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.

6 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®.



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Technical Overview



MAY HAVE YOUR PLASTIC. and UP DIKE TRIS.

WHEN IT COULD END UP LIKE THIS? .



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.

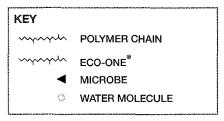
1. FORMATION OF BIOFILM

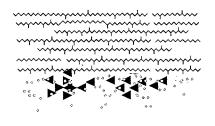
Eco-One[®], acting like a surface-active agent, renders the hydrophobic base resin much more hydrophilic in the presence of microbes. This facilitates a rapid formation of a moisture-borne and microbe-rich biofilm on the surface of the plastic.

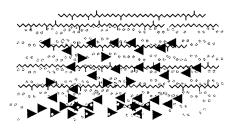
Enzymes secreted by microbes activate the hygroscopic properties of Eco-One[®]. This allows moisture to be retained thus facilitating an intimate adhesion of the biofilm to the plastic.

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.

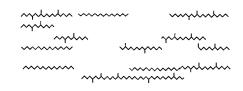
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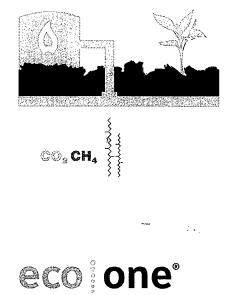
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