

BioCORTEC®

NEWSLETTER

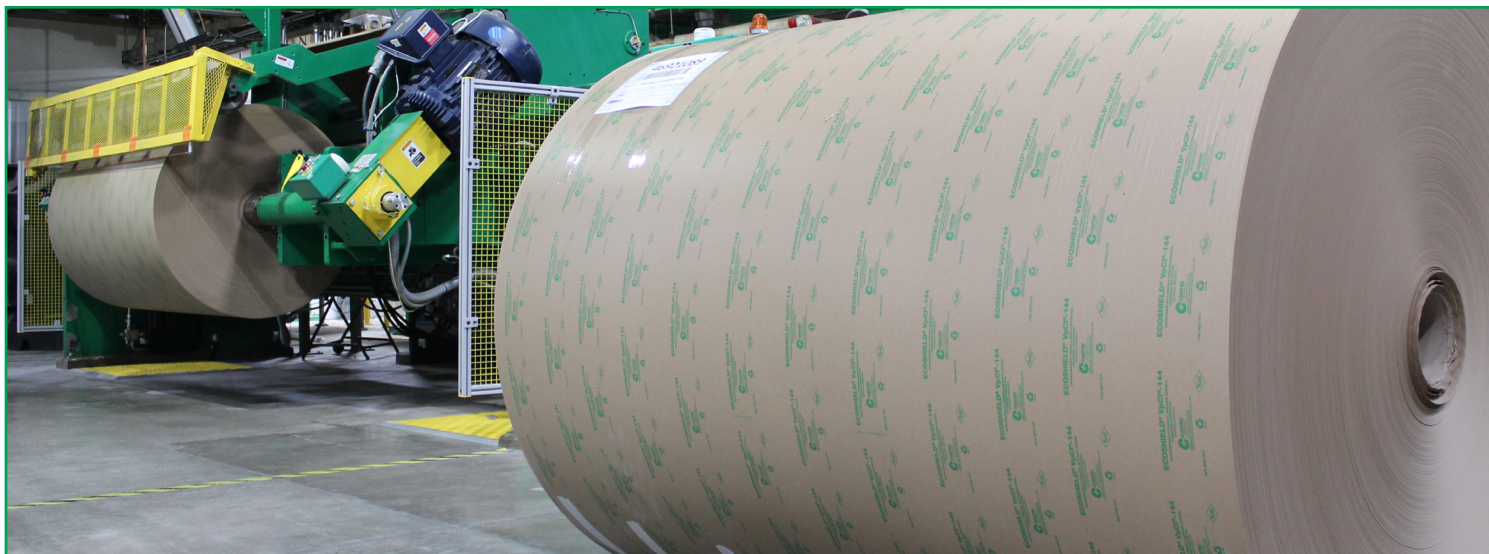
May 2021

TAKE THE BIOCORTEC® APPROACH TO EVERYDAY TASKS

Here at Cortec®, we are constantly on the lookout for new ways to do everyday tasks. We want to give you and your clients the option of stretch wrapping, lubricating, cleaning, preventing corrosion, and much more using eco-conscious materials that minimize pollution and take advantage of renewable resources.

This edition of the BioCortec® newsletter focuses in on some of those relevant products and resources that have been on our minds recently. We hope they will be of help to you in developing your own “BioCortec” strategy to assist your sphere of influence!

THE POWER OF PAPER



When combined with recyclability and responsible forestry, paper products can be a legitimate alternative to common plastics that might otherwise be used for packaging. With paper materials, there is less chance of pollution and more opportunity to meet bio-based content requirements such as those under the mandatory federal purchasing initiative of the USDA BioPreferred® Program.* Over the last several months, we have focused in on some of our paper alternatives and also addressed the question of why to use them. Here are some ideas we considered.

‘Natural’ Benefits of VpCI® Paper

1. VpCI® Paper provides a natural cushioning effect that is great for bearings and other sensitive components.
2. It also absorbs a degree of humidity and residual moisture that sometimes unavoidably enters the package when parts have to be stacked before they can be sufficiently cooled.
3. Three of Cortec’s VpCI® Papers are USDA Certified Biobased Products: CorShield® VpCI®-146 (basic two-sided corrosion protection), VpCI®-146 Creped Paper (creped version of CorShield® VpCI®-146), and EcoShield® VpCI®-144 (corrosion protection plus moisture barrier). A fourth paper, EcoShield® Barrier Paper (recyclable moisture barrier paper without corrosion inhibitors), has also earned the label.

**For more information about the BioPreferred® Program, go to <http://www.biopreferred.gov>.*

Think Outside the Plastic Bag with EcoShield® Heat Sealable Papers

Heat sealable plastic bags are an industry norm but can again present a disposal challenge. Those who want to try a heat sealable paper alternative can get creative by considering EcoShield® Heat Sealable Paper as a viable, customizable, recyclable option. This paper has a water-based heat sealable adhesive on one side that forms a strong permanent bond when the coated sides are sealed together. Users can manufacture custom heat sealable envelopes, bags, sleeves, banding, tags, or other creative packaging materials out of the paper and further customize the product by printing it with brand logos on the uncoated side.

Learn more about EcoShield® Heat Sealable Paper here: <https://www.cortecvci.com/cortec-issues-invitation-to-think-outside-the-plastic-bag-by-opting-for-ecoshield-heat-sealable-paper/>



COMPOSTABLE FILMS NEWS

Another way that we are seeking to help industrial consumers cut down on traditional plastics headed for the landfill is by offering alternative films that can be disposed in a commercial composting environment. This year has already seen several compostable film varieties released!

Eco Wrap®: World's First Compostable Industrial Strength Machine Grade Stretch Film

Eco Wrap® is to our knowledge the first commercially compostable industrial strength stretch film that can be used on standard automated stretch wrap equipment. Eco Wrap® users can benefit from material/waste reduction in the following ways. First, most applications requiring three wraps of standard film can use two wraps of Eco Wrap® without sacrificing strength or protection. Second, Eco Wrap® is commercially compostable† according to ASTM D6400. Consider using it for agriculture bundling, pallet wrapping, packaging construction materials, and more! Watch a short demo video of how to apply Eco Wrap® here: <https://www.youtube.com/watch?v=vFH45i8tDQ>



†This product is intended to be composted in a commercial composting facility operated in accordance with best management practices. Check locally to see if such a facility exists in your community and if they will accept this product. Not suitable for backyard composting.

EcoStretch™: World's First Compostable Corrosion Inhibiting Stretch Film

Going one step beyond Eco Wrap®, Cortec® has created a corrosion inhibiting version of its commercially compostable stretch wrap. EcoStretch™ powered by Nano VpCl® meets the ASTM D6400 standard for commercial composting[†] and is perfect for stretch-wrapping metal equipment or components that need to be kept rust-free while minimizing the environmental impact of traditional plastic packaging. Recommend it for

- Bundling of metal parts
- Palletizing of metal equipment
- Packaging of steel coils

Learn more: https://www.cortecvci.com/whats_new/announcements/EcoStretch-PR-2020-03.pdf



EcoShrink™ Bids to Keep Plastics Out of Landfills

EcoShrink™ is another commercially compostable film that Cortec® is offering as a way to keep plastics out of landfills. It is designed for standard heat-shrinking applications but takes both the beginning and the end of the shrink wrap product life cycle into account. At its source, EcoShrink™ contains commercially compostable resins and 45% biopolymers. When it comes to disposal, EcoShrink™ meets the ASTM D6400 standard for commercial composting.[†]

Learn more: https://www.cortecvci.com/whats_new/announcements/EcoShrink-Film-PR.pdf

New In-House Organics Recycling Program Uses Eco Film® Bags

On another exciting note, we started using our own Eco Film® bags to launch an organics recycling program at our Cortec® Headquarters facility at the beginning of 2021!

This is an exciting project that sends our food and paper waste to a local industrial composting site instead of the landfill. Eco Film® Bags are certified compostable under BPI certificate #890974 for disposal in a commercial composting facility and are therefore perfect for use as liners in Cortec's organics collection bins!

Learn more about the program: <https://www.cortecvci.com/new-organics-recycling-program-allows-cortec-corporation-to-use-its-own-compostable-bag/>



OUR NEWEST BIOBASED LUBRICATION RESOURCE

One of our best new resources for the “BioCortec®” market is our new guide to EcoLine® greases. This one-page, two-sided handout is a great tool to share with customers who might be interested in launching an initiative to lower their environmental impact but are unsure where to start. Since lubrication is something needed in every industry, it is a logical place to substitute a “greener” biobased, biodegradable product for a petroleum-based lubricant. Our EcoLine® greases handout gives some key motivations for switching to biobased greases and makes the transition easy by listing important characteristics of each grease: NLGI Grade, percentage of USDA Certified Biobased Content, special features, and target application. Find our EcoLine® greases handout online at: https://www.cortecvci.com/whats_new/announcements/Biobased_Grease_Sell_Sheet.pdf.

BIOTECHNOLOGY NEWS

Our Canadian subsidiary, Bionetix® International, allows us to keep one eye on the biotechnology horizon at the same time we develop our corrosion inhibitor line. In the last year, Bionetix® has seen some exciting developments related to the emerging field of biogas production. This is a “greener” source of energy that converts waste materials to biogas for use as heat and electricity. Two products in particular have been on our radar lately.

Introducing BIOGAS BOOSTER 3™

Hoping to help overcome some of the deficiencies in biogas production, Bionetix® recently released a new micronutrient blend aimed at boosting biogas production, process stability, and efficiency by stimulating the microorganisms that do the work. This brand-new product, called BIOGAS BOOSTER 3™, is a blend of three micronutrients in a stable soluble and bioavailable form that makes them easily accessible to microorganisms in order to stimulate the anaerobic digestion of organic waste. Laboratory testing done by York University in 2020 showed that the addition of BIOGAS BOOSTER 3™ increased biogas production in just one week and that biogas production was expected to continue to grow as time went on.[‡]



Confirming the Benefits of BCP12™

BCP12™, one of our existing products, was also tested by York University at the same time as BIOGAS BOOSTER 3™. BCP12™ fills a special niche in the anaerobic digestion of lignocellulosic waste (e.g., from plant matter, wood, agricultural waste), one of the most abundant biogas feedstock materials. Unfortunately, this type of feedstock can inhibit the growth of microorganisms needed for anaerobic digestion, keeping the biogas plant from reaching its full biogas production capacity. During testing, BCP12™ was added to hydrolysate from lignocellulosic biomass and in all three cases increased the concentration of beneficial microorganisms. The report concluded, “Hence, BCP12™ can be also employed as [a] supplement in media containing inhibitors to increase the microbial tolerance towards several toxic compounds.”[‡]

As society looks for ways to reclaim waste and expand forms of renewable energy, these two biologicals are worth remembering as important tools to help biogas generation become more efficient and successful as a viable source of “greener” energy.

Learn more about BIOGAS BOOSTER 3™: https://www.cortecvci.com/whats_new/announcements/BIOGAS-BOOSTER-3-PR.pdf

Learn more about BCP12™: https://www.cortecvci.com/whats_new/announcements/BCP12-York-University-Study-PR.pdf



BIOCORTEC® CASE HISTORIES

In the last half year or so, it has been fun to see some new case histories roll in that directly relate to our BioCortec® initiatives. Read some highlights below to learn more about our compostable bags, biological concrete cleaner, and soil bioremediation in action!

Replacing Conventional Plastic with Eco Film® Bags

A river restoration specialist and the largest producer of native wetland plants in the UK was looking for a way to replace their conventional plastic bags with compostable packaging to reflect their eco-responsible image in the last few years. A trial run of 33-gallon (125 L) Eco Film® liner bags (compliant to ASTM D6400/EN 13432 for commercial composting only) to package trays of wet plants when boxing up orders for transit proved satisfactory. They began to purchase Eco Film® regularly and stated, "We'd been looking for an alternative option to the conventional plastic bag and [Cortec's distributor] helped us achieve this with their compostable substitute." Log in to read the full case history: https://www.corteccasehistories.com/?s2member_file_download=access-s2member-level1/ch695.pdf



Cleaning up Concrete with Microorganisms

A golf course owner in Ontario was able to see the benefits of MCI®-2061 firsthand last August, when MCI®-2061 was tested on an outdoor concrete pad stained with oil from equipment and machinery that had been parked there. MCI®-2061 was brushed onto the stained concrete, activated with water, and left overnight to biodegrade hydrocarbons. The next day, MCI®-2061 was rinsed away, leaving the customer very happy with the results and the ease of application. Watch a time-lapse video of the cleaning demo here: <https://youtu.be/NCSizZals48?t=1>



Reducing Soil Contamination with Only One-Third of Recommended Dose

Just last August, an engineering company involved in soil remediation decided to test Bionetix® products on soil contaminated with petroleum hydrocarbons. BCP35S™ and BIOSURF™ were applied only one time out of the three recommended doses. In spite of this, PHC (petroleum hydrocarbons) and PAH (polycyclic aromatic hydrocarbons) were reduced by more than 70% within 20 days of the application. Read more about the soil bioremediation trial when you log in here: https://www.bionetix-international.com/wp-content/uploads/Restricted_Case_Histories/ch036.pdf



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