

April 2015

# **EcoCortec's Success in Marine Clean Project!** EcoOcean<sup>®</sup> -Latest Technology in Preventing Marine Litter

We are proud to announce that Croatian plant, EcoCortec<sup>®</sup>, the most advanced manufacturer of biodegradable packaging in Europe played a major role in international 1,1 million Euros worth Marine Clean Project -'Marine debris removal preventing further litter entry', sponsored by CIP Eco-Innovation Program. Main goal of this important innovative project is preventing hazardous environmental impact of conventional plastic materials discarded at sea, as well as promoting sustainability and innovative technologies.

The project Marine Clean deals with decreasing marine litter – dangerous ecological problem that is growing rapidly. The great majority of marine litter (more than 90%) consists of plastics, which has become one of the biggest contaminants in the world's oceans. As most types of plastics are not biode-gradable, plastic debris poses a serious threat to various living species, boats and coasts.

EcoCortec<sup>®</sup> is participating in "Marine Clean" as a production partner for flexible packaging. In the framework of this project EcoCortec<sup>®</sup> introduced revolutionary EcoOcean<sup>®</sup> material: film and bags constructed from the latest biobased polymer technology on the market, PHA. They are developed completely with the environment in mind and contain 77% of biobased content.

EcoOcean<sup>®</sup> is fully marine biodegradable and will biodegrade by anaerobic digestion in marine, natural soil and water environments, backyard composting systems and municipal composting facilities. It is heat and moisture resistant making it ideal for compostable bags and many flexible film-packaging applications.

Some of the targeted markets for marine degradable packaging are: cruise lines, hotels and resorts in coastal areas of Europe as well as ecologically sensitive regions along rivers and lakes.

Important aspect of the whole project is to influence change of policies within EU, in order to minimize pollution and develop new technological platform for the next generation of environmentally friendly products and practices that can be implemented in all countries of European Union.



Croatian bioplastics plant - EcoCortec<sup>®</sup> with its biobased and water degradable film EcoOcean<sup>®</sup> made a huge step in fighting one of the most serious ecological threats today- the increasing problem of marine debris. These revolutionary bags will help in maintaining clean and unpolluted waterways around the world.



EcoOcean<sup>®</sup> film products are durable and versatile with the added value of biodegradability in a wide range of environments as well as marine protective. If they reach the waterways they will biodegrade in months instead of remaining in the ocean for years like ordinary hazardous plastic films.

## **Featured Products**

### EcoClean® VpCI®- 411 Cleaner/ Degreaser

Cortec<sup>®</sup> presents VpCl<sup>®</sup>-411, a highly concentrated, heavy-duty, water-dilutable, D-Limonene - based cleaner/degreaser liquid with patented, world-renowned Vapor phase Corrosion Inhibiting technology. VpCl<sup>®</sup>-411 is a super economical replacement for numerous surface preparation products saving customer's money and time.

This biobased, biodegradable product is designed for extra tough cleaning jobs in industrial and commercial applications. It outperforms other cleaners/degreasers and unlike other solvent-based cleaners available on the market it powerfully fights corrosion while being environmentally safe and easy to use.

VpCl<sup>®</sup>-411 effectively cleans heavy-duty machinery, shop tools, hoods, parts-in-process, food processing equipment, office equipment, floors, walls, lavatories and desks. It is excellent in dissolving grease, oil, paraffin and waxes and offers a pleasant odor.

This cleaner/degreaser can be used on all engineering metals and alloys. Unlike other solvent based cleaners which are harmful to human skin and classified as hazardous materials, VpCI®- 411 is completely safe to handle; it is non-toxic, non-abrasive, and extremely economical.

VpCI<sup>®</sup>-411 contains 81 percent biobased ingredients and is USDA (United States Department of Agriculture) certified biobased product for Federal Agency Preferred Purchasing programs.



By incorporating VpCI® technology into the cleaning/degreasing processes corrosion protection is offered while surfaces are at their most vulnerable state



VpCl®-411 is excellent for cleaning/protection of heavily soiled parts like gearboxes, engines, oil platforms, process, and plant machinery

### Inkjet Printing Innovation On VpCI®-137 And BioPad® Products

Cortec<sup>®</sup> Corporation leads the way with another groundbreaking development in the corrosion inhibiting industry. Cortec<sup>®</sup> is on the cutting edge of inkjet printing innovation on our VpCI<sup>®</sup>-137 and BioPad<sup>®</sup> (Patent Pending) products by utilizing the latest techniques and technologies. This high-tech operation enhances the appearance of our products and prevents counterfeiting.

In order to test the efficiency of the inkjet printer, Cortec<sup>®</sup> Laboratories, Inc, has recently completed an evaluation of New Foam Ink to determine if the ink printed on the foam transfers to metal in high temperatures and high humidity and the results were very satisfactory.

Using ASTM D1748, and humidity testing at 120°, 100% relative humidity on carbon steel panels, the test proves that the new ink on the foam does not transfer onto the metal material at high temperature and high humidity conditions. The ink looks exactly the same as it did before testing.



VpCI®-137 utilizes the latest printing techniques and technologies.

#### Continued on page 3....

#### **Cortec's Inkjet Printer Features:**

- Requires no additional labor or processing time to print in the same line as the current foam is impregnated in
- · Allows foam to run unprinted with the ability to be shut down
- Permits for a porous foam structure through sharp print, while also being small enough in size to run two strips of print down the length of the roll



## Boost Engine Power and Cut Repair Costs VpCI®-705 Bio Fuel Additive Powered by Nano VpCI®

VpCI®-705 Bio - Powered by Nano VpCI®- is a new specially formulated, biobased, biodegradable, multifunctional fuel additive to biofuels, produced using renewable and sustainable raw materials. This environmentally friendly product serves as a corrosion inhibitor, fuel stabilizer and water emulsifier for biodiesel, diesel, gasoline, gasohol mixtures and other biofuels. It provides premium multiphase corrosion protection, lubricity and elastomer protection allowing better engine performance.

VpCI®-705 Bio provides excellent corrosion protection for all of the common engineering metals used in automotive fuel systems including tin plated and galvanized steel, cast iron, aluminum, copper base alloys, solder, zinc and die cast alloys. VpCI®-705 Bio enables unique multimetal corrosion protection in all phases: liquid, interface and vapor phases above and below the fuel level. It can be used in operation or storage. This additive does not contain trace metals, chlorides, chromates, nitrites or phosphates and does not form corrosive combustible products. It absorbs water in tank and fuel line and can be fogged into fuel tanks.

In industry there is often a requirement for large fuel storage tanks and systems. This can cause problems such as fuel separation and potentially freezing in cold climates. Cortec's VpCI®-705 Bio helps alleviate this problem by reducing fuel freezing point. It provides stability and reduces the build-up of static charges that cause explosions.

VpCI<sup>®</sup>-705 Bio conforms to military specification MIL-I-2501, ASTM D665-92 and NACE RP0487-2000. It is General Motors corporation Approved Part no10661800 and contains EPA (Environmental Protection Agency) Identification #1733-0002.



Easy to blend VpCI<sup>®</sup>- 705 Bio will provide powerful corrosion protection to upper cylinder walls, piston heads, and rings during operation or shutdown





Without VpCI®-705 Bio

With VpCI®-705 Bio

# **Chemistry World Featured the Following Article Regarding Bio-Based Chemicals:** Bio-based chemicals on the rise in US

The bio-based products and renewable chemical industry in the US is growing and offers significant economic benefits, including job creation in numerous sectors, according to the US Department of Agriculture (USDA).

In a report released on 7 October, the USDA estimates that bio-based chemicals, which are manufactured from renewable resources and are slowly beginning to replace their petroleum-derived counterparts, will constitute over 10% of the chemicals market by 2015.

To read the full article, please go here:

#### http://www.rsc.org/chemistryworld/2014/10/biobased-chemicals-rise-us



Feedstock security could become an issue for chemicals derived from crops as the climate changes iStock

## **SpecialChem Featured This Great Article About Biodegradable Plastics:** Global Biodegradable Plastics Market to Grow at a CAGR of 18% from 2014-20, Predicts FMI

SpecialChem / Mar 23, 2015

LONDON -- Future Market Insights (FMI) released its latest report titled, "Global Bio-based Biodegradable Plastics Market Analysis and Opportunity Assessment, 2014 - 2020". According to the report, the global bio-based biodegradable plastics market is estimated to display a significant growth rate of 18% during forecast period 2014 – 2020.

Consumption of biodegradable plastics and bio-based biodegradable plastics was 300 Mn metric and 591,000 metric tonnes in 2013, accounting for 0.21% and 0.1% respectively of the total global plastics consumed. Demand for bio-based biodegradable plastics was considerably lower in comparison to traditional fossil fuel-based plastics; however, it is anticipated to increase significantly in the near future.

To read the full article, please go here:

http://polymer-additives.specialchem.com/news/industry-news/global-biodegradable-plastics-marketto-grow-at-a-cagr-of-18-from-2014-20-predicts-fmi





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