

# Comparing and Contrasting Biobased and Traditional Rust Preventatives: What to Look For



We have all been told to use more biobased products where we can. But how do we compare the real differences between a traditional rust preventative versus a biobased one? Does a biobased product have any real practical value for the user other than giving them a nice reputation for sustainability? Since specific characteristics vary from product to product, there is not one clear-cut answer for every biobased vs. petroleum-based formula. It is more helpful to know six characteristics to look at and compare before making your final product selection.

#### 1. Carrier

This is the first indicator of worker-friendliness. For instance, if the product is water-based or canola-oil based, the chances are better it is safer to work with than one that is based on petroleum distillates.

#### 2. Flash Point

Products with higher flash points are typically preferred to minimize potential hazards in the

work environment. Water-based products are often the best in this respect, usually with no flash point. For biobased products, the flash point typically rises with a higher proportion of biobased content and drops with a higher proportion of petroleum-based ingredients. Flash point information can be found on a product's safety data sheet (SDS).

## 3. Biobased Content

Biobased content usually shows how much of the product (minus the water content) is sourced from a renewable material. This is especially important for federal agencies and contractors who are mandated to pur-



chase a certain amount of biobased content. However, many other organizations are looking for ways to voluntarily reduce their use of nonrenewables and improve their overall sustainability footprint.

## 4. GHS Hazard Classifications

Also found on a product's SDS, GHS hazard classifications are an important factor to examine for worker safety. Although it always de-



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pends on the components of each product, Lisa Marston, Regional Technical Service Engineer at Cortec<sup>®</sup> Corporation, pointed out that "biobased and water based options often have fewer/ less severe hazard classifications" than products that are primarily petroleum-based. BioCorr<sup>®</sup> Rust Preventative, EcoLine<sup>®</sup> 3690, and EcoLine<sup>®</sup> 3220 are three Cortec<sup>®</sup> USDA Certified Biobased Products that have no GHS hazard classifications.



EcoLine® 3220

#### 5. VOCs

VOCs (volatile organic compounds) are another important concern for worker safety and often require special

## **BioCortec® Concepts Featured at AMPP 2024**



It was an honor to be part of the 2024 AMPP symposia as Cortec<sup>®</sup> employees and technical associates presented seven papers related to Cortec<sup>®</sup> technologies. Among these, three papers focused on biobased or biodegradable concepts. Ming Shen, our Manager of Green Chemistry Initiative, talked about a biobased CUI inhibitor and compostable VCI film, while a paper by Technical Service Engineers Lisa Marston and Luke Stone covered the concept of choosing biobased products over conventional alternatives. All this was against a special backdrop of our CEO Boris Miksic's 50 years of NACE/AMPP membership!

controls/PPE for use. Petroleum-based chemicals usually have a very high VOC content; whereas biobased products often do not. Specific levels must be checked from product to product.

#### 6. Removability

Although it may not matter so much to the person applying the product, removability will affect someone at some point in the product use life cycle. This aspect can influence worker safety and efficiency more than many realize. For example, one traditional petroleum-based product on the market requires the

use of Stoddard solvent, kerosene, mineral spirits, or a heated alkaline cleaner to remove. In contrast, many biobased products can be removed with water or a basic alkaline cleaner.

The pros and cons of biobased vs. petroleum-based products can be nuanced, meaning not all biobased products are equal. The best approach is to look at specific characteristics, compare the options, and decide what is best for an organization and its workers given individual project parameters and values. A good way to start is by looking at the PDS and SDS. Then contact your Cortec<sup>®</sup> sales rep or technical service engineer with additional questions: <u>https://www.cortecvci.com/contact-us/</u>!



### **CCP Wins Recycling Excellence Award**

Cortec<sup>®</sup> Coated Products (CCP) in Eau Claire, Wisconsin, was honored to be one of 11 organizations to receive the 2023 Wisconsin Recycling Excellence Award late last year. The Wisconsin Department of Natural Resources (DNR) uses this award to recognize outstanding efforts to recycle and reduce waste. CCP's award fell under the category of "Projects and Initiatives" that have led to the recycling of more material and/or better recycling cost-effectiveness.

In addition to sourcing most of its paper rolls from recycled content, CCP's specialty is to apply a corrosion inhibiting coating that still allows the paper to be recycled after use. Converting its coated VpCI® Papers into marketable rolls and different sizes of sheeting inevitably leaves behind a large amount of paper scrap. CCP collects the scrap, compacts it into bales, and sends it to a recycling broker that sorts and resells the scrap to various paper/recycling plants. Cortec<sup>®</sup> Environmental Specialist, Derek Jensen, estimates that since 2017, CCP has recycled at least 616 tons of paper, equal to approximately 12,320 trees untouched! Learn more about CCP and the award: https://www.cortecvci.com/press-release-corteccoated-products-wins-wisconsin-dnr-recyclingexcellence-award/





(Data as of September 2023 Submission)

#### **NEW PRODUCTS & RESOURCES**





## Probiotics . . . in Your Toilet Bowl?

Our biotechnology subsidiary has been forging new paths with its probiotic toilet bowl cleaner. ECO-CLEAN-BOWL<sup>™</sup> is a toilet bowl cleaning tablet that combines probiotics with a septic safe cleaning formulation. Initial cleaning action cleans grime and efficiently targets and removes stains including lime-scale and rust. It neutralizes unpleasant odors and leaves behind a fresh clean scent, as well as beneficial probiotics to boost the toilet's microbial ecosystem and reduce the available food sources for harmful bacteria. Learn more: <u>https://www.bionetix-international.com/press-release-add-probiotics-to-your-toilet-cleaningroutine/</u>

## **NEW PRODUCTS & RESOURCES**

## **Corrosion Protection + Heat Sealable Paper**

Recyclable paper is increasingly being seen as a sustainable alternative to plastic packaging. EcoShield<sup>®</sup> Heat Sealable Paper has been one of those options that offers a creative replacement for single use plastic bags. Branching off this same concept, Cortec<sup>®</sup> has combined heat sealability with corrosion protection to create CorShield<sup>®</sup> VpCI<sup>®</sup>-146 Heat Sealable Paper. With this specialty version, manufacturers now have the option of making their own VCI heat sealable bags and using vertical form, fill, and seal machines to automatically package and protect small metal parts. Learn more: <u>https://www.cortecvci.com/press-release-corrosion-protection-heat-sealable-paper-new-custom-packaging-solution/</u>



## **Probiotics for Portable Sanitation Brochure**

Last fall, our subsidiary Bionetix<sup>®</sup> released a new brochure on probiotics for the portable sanitation industry. This collection of portable sanitation products stands out from traditional treatments by putting the power of nature to work to clean, deodorize, and biodegrade. It is an excellent resource for any provider of portable sanitation services looking for practical, effective solutions to improve maintenance. Browse the brochure here: <u>https://www.bionetix-international.com/wp-content/uploads/2023/11/Portable\_Sanitation\_10-2023.pdf</u>

## New Corporate Brochure Highlights Cortec's Biobased Emphasis

In March we released a new corporate brochure that offers an excellent overview of the Cortec<sup>®</sup> family of corrosion control and biotechnology offices and plants. It begins by recognizing Boris's 50<sup>th</sup> anniversary in the industry, taking a look at where we have come from and where we are heading. Cortec's emphasis on sustainability is evident, with many references to Cortec's biobased product development and participation in the USDA BioPreferred<sup>®</sup> Program throughout. Take a moment to browse the brochure to get a bird's eye view of who we are and where we operate: https://www.cortecvci.com/About/worldleader/corp\_broch.pdf





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