JULY 2025

THE LEADING EDGE

CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

FROM WASTE TO WORTH: STAY AHEAD WITH ECOCORTEC'S 'CIRCULAR ECONOMY' APPROACH

Does your plastic waste come full circle? That's the goal EcoCortec® is seeking to turn into a reality at its plant in Beli Manastir, Croatia.

Also known as the "First Croatian Bioplastics Plant," EcoCortec® places a strong emphasis on taking care of the environment and is proud to offer two specialty films made with 30% post-consumer recycled (PCR) content sourced from a high-quality European supplier of PCR. VpCI®-126 PCR and EcoSonic® VpCI®-125 PCR HP Permanent ESD Film & Bags both contain Vapor phase Corrosion Inhibitors that protect packaged metals from corrosion during shipping and storage. In addition to corrosion protection, the latter film contains long-term static dissipative properties to reduce or eliminate static buildup inside the bag, making EcoSonic® VpCI®-125 PCR HP perfect for protection of static sensitive electronics.

EcoCortec® also accepts clean used VpCI® films (PCR) or unused VpCI® scrap material (PIR, postindustrial recycled content) for inhouse regranulation and incorporates this "repro" (as available) into many of its flagship products at a percentage that retains the necessary quality. If you would like to be part of this circular economy, either by buying one of our PCR films or returning your clean used VpCI® film and bags to us for reprocessing, be sure to contact EcoCortec® for more details.

THREE-IN-ONE ELECTRONICS PACKAGING PROTECTION FROM ECOCORTEC®!

Did you know EcoCortec® now offers corrosion inhibiting ESD bubble bags? EcoSonic® VpCI®-125 HP Permanent ESD Bubble Film and Bags combine Vapor phase Corrosion Inhibitors with cushioning packaging bubble bags and long-term ESD protection to protect sensitive electronic equipment from corrosion, physical damage, and static damage. This three-in-one protection is a perfect combination for shipping sensitive electronics and is available in custom-size rolls, sheeting, or heat-sealed bags. Click here to see the product data sheet: www.cortecvci.com/products/ecosonic-vpci-125-hp-permanent-esd-bubble-film-and-bags/

ANOTHER SCORE FOR SUSTAINABLE LEADERSHIP! CORTEC® INTRODUCES WORLD'S FIRST CERTIFIED INDUSTRIALLY COMPOSTABLE VCI PAPER

Cortec® has entered another point on history's scoreboard of sustainable leadership by introducing the first certified industrially compostable VCI (vapor corrosion inhibitor) paper for protective metals packaging. This development highlights Cortec's ongoing commitment to developing innovative, environmentally responsible solutions to corrosion challenges faced by industries worldwide. With EcoBio™ VpCI®-146 Paper, manufacturers large and small have yet another option for metals protection with a "circular economy" focus.

Due to the presence of a corrosion inhibitor in the product, it was important for EcoBio™ VpCI®-146 Paper to undergo rigorous evaluation regarding its impact on soil when composted. Testing by TÜV Austria confirmed that EcoBio™ VpCI®-146 Paper meets the EN 13432 standard for industrial composting and becomes humus with no eco-toxicity to the soil. During testing, EcoBio™ VpCI®-146 Paper disintegrated and turned into compost in about six weeks (test standard allows 12 weeks). Soybeans and corn seedlings grown with compost from EcoBio™ VpCI®-146 Paper showed extremely similar results to plants grown using regular compost. This successful evaluation has allowed EcoBio™ VpCI®-146 Paper to become the first certified industrially compostable VCI paper in the world (#TA8012509007). Since EcoBio™ VpCI®-146 Paper also contains 92% USDA certified biobased content, it demonstrates sustainability from beginning to end—sustainable sourcing, preservation of valuable metal parts, and two options for environmentally responsible disposal. It is just one more example of Cortec's leadership in developing corrosion solutions with environmentally-conscious users in mind.

PREPARE FOR TAKEOFF WITH EXCITING NEW IDEAS! CORTEC® LAUNCHES INNOVATION PROGRAM

In keeping with our founder's characteristic spirit of entrepreneurship, we are eager to see a new level of creativity and innovation ignite after the recent launch of our Cortec® Innovation Incentive Program. Instead of leaving ideation solely to Cortec® scientists and a few sales reps that come across a market need, Cortec® leadership is inviting all employees to start brainstorming on fresh ideas that could change the landscape of corrosion control forever.

By including employees from all departments, Cortec® is tapping into a vast pool of knowledge that might otherwise be overlooked and which offers insights from many different perspectives. Each idea must be well thought out and include a rationale for why the product fills an important market need and would be valuable to the end user.

Originators of successful ideas will receive a special monetary bonus and possibly even become a patent holder.

Ideas will be reviewed monthly, and we look forward to seeing the exciting results that come from everyone putting their heads together as we take Cortec® R&D to the next level of innovation and outstanding success in corrosion control!

REBECCA GUZA POISED TO PROPEL CORTEC® TO NEW HEIGHTS OF INNOVATION

We are pleased to introduce Rebecca Guza, Ph.D., as our Director of Innovation and Product Technologies. This new role will lead R&D, compliance, and technical services while fostering collaboration with other departments to drive cohesive innovation at Cortec®.

Rebecca joins Cortec® with a strong foundation in science, management, and manufacturing. After receiving a Ph.D. in Biochemistry, Rebecca spent 13+ years in technical leadership in the chemical and manufacturing industries. She also earned an M.A. in Organizational Leadership. Her experience successfully leading cross-functional teams to execute complex projects has honed Rebecca's skills in creative problem-solving, building strong networks, and prioritizing customer needs—all qualities essential to Cortec's mission.

Since starting at Cortec®, Rebecca has been intrigued by its impact on an incredible variety of industries. She noted, "From oil rigs to small automotive parts – and everything in between – our products protect critical assets that countless people rely on." Rebecca's goal is ultimately to help Cortec® and those working in these fields by fostering innovation, collaboration, and project execution to drive success for all involved.

With this strategic addition to the team, Cortec® is poised to climb to new heights of innovation and deliver even more advanced corrosion solutions worldwide!

MEET CARISSA METZGER: OUR NEW JUNIOR SCIENTIST!

To ensure continued innovation and dynamic solutions to corrosion control, it is critical for our team to have access to a robust testing framework that analyzes the characteristics and performance of raw materials and finished goods. To enhance those capabilities, Cortec® R&D recently created the position of Junior Scientist, a role dedicated to scientific testing that supports the work of Cortec® R&D, Technical Services, and Process Engineering.

Joining us in that role on June 16th was Carissa Metzger, a graduate of the nearby University of Minnesota-Twin Cities. After receiving a degree in biochemistry, Carissa spent three years working as a Mass Spectrometry Analyst in New England. This educational and professional background has given Carissa a robust foundation in analytical chemistry that will bring Cortec's data gathering and analysis to the next level of reliability and practical value for those seeking corrosion solutions.

With a focus on biology, Carissa brings a unique perspective to this role. She commented, "As someone with a more biology-based background, I've really enjoyed seeing how our corrosion prevention systems function like larger biological systems. More specifically, our VpCIs function like a cell wall to protect metal from corrosion."

Join us in watching how Carissa's strengths and new perspectives propel us forward to greater heights of quality and innovation as we support your journey to better corrosion protection!

DON'T GO IT ALONE: WE'RE HERE TO GUIDE YOU!

You have your product in hand and you're ready to apply it for rust prevention or removal—now what? How do you use VpCI®-649 for hydrotesting? How do you fog a gearbox with M-531? Which water treatment animal should you choose for your seasonal boiler layup?

As soon as questions like these come to mind (or even before), it's time to consult one of Cortec's technical application guides to ensure your process succeeds. Here's a quick Q&A on what to expect from these helpful resources:

Q: What is a technical application guide?

A: A Cortec® application guide is created and maintained by Cortec® Technical Services. It provides clear, step-by-step instructions on how to use a Cortec® product once you have it. While a product data sheet (PDS) answers the question, "What is this product?" and a safety data sheet (SDS) answers the question, "How can I be safe around this product?" our Tech Service application guides answer the question, "How do I actually do this application and do it right?"

Q: Why would you want to use an application guide?

A: Cortec® technical application guides give you everything you need to know: how much product to apply, how to apply it, how long to apply it, and which equipment to use. For example, guides for VpCI® fogging fluids may define fogging, compare different sprayer types, and offer tips to ensure proper system distribution.

Q: Where can you get an application guide?

A: Cortec® end users and distributors can request application guides from a Technical Service Engineer or Regional Sales Manager.

Q: What are your most popular application guides?

A: Coatings have the most guides, given their technical application needs. Water treatment guides also receive significant attention, covering various layup products and techniques. We also produce general guides—for example, on rust removal and fogging applications.

If you have a Cortec® product sitting in your warehouse ready to go but you're unsure how to apply it, don't just guess—reach out to your Regional Sales Manager or Technical Service Engineer for a step-by-step how-to. Investing a little time now makes your corrosion control efforts far more effective in the long run. Contact us to request a guide.

IN THE LAB WITH COLIN: A 'SWEET' APPROACH TO SERIOUS SCIENCE

What's your favorite flavor of *concrete lollipop*?

Colin Gardner (Product Development Chemist) is deep into a long-term project aimed at developing a new and improved method for testing the performance of corrosion inhibitors in various concrete mixes.

The secret weapon? Concrete lollipops—rebar samples embedded in cured concrete molds. After a month-long curing process, each sample undergoes electrochemical testing (and yes, he had 78 lined up on this particular day!).

This innovative testing method isn't just helping us understand concrete materials better—it's paving the way for improved corrosion protection across the entire industry. It's especially crucial for evaluating how inhibitors perform in emerging concrete mix designs, like Portland limestone cement (PLC), which are becoming the new standard. Stay tuned for more updates from the lab as Colin's work continues to shape the future of concrete durability!

MOVING AHEAD WITH 'PLANET-FRIENDLY PLASTICS'

As a company committed to developing sustainable solutions, Cortec® continually tracks industry innovations to guide its biobased product research. Leading this effort is our Sr. Scientist & Manager, Green Chemistry Initiatives, Ming Shen, Ph.D.

To stay connected with emerging technologies and key players in the field, Ming attended the "Planet-Friendly Plastics: Latest Advances" conference held in Las Vegas this March.

The event gathered experts and innovators focused on advancing environmentally responsible plastic.

The first day of the conference spotlighted renewable feedstocks for producing biobased and biodegradable plastics—offering intriguing ways to reduce dependence on petroleum-based materials. Among the standout examples were making PVC pipes from agricultural waste and producing compostable forks from methane.

Day two shifted focus to plastic end-of-life solutions, particularly innovations in post-consumer recycled (PCR) resin development and sustainable disposal strategies.

"The conference is helpful in that it connects me to the active practitioners in the field, and updates me with the current landscape, narratives, and resources in the sustainability pursuit," putting Cortec® in a better position to innovate, Ming explained. Keep your eye out for new biobased product developments forthcoming!

INSIDE THE CAN: A BEHIND-THE-SCENES LOOK AT AEROSOL FORMULATION AT CORTEC® SPRAY TECHNOLOGIES

At Cortec®, formulating aerosol products for MRO (Maintenance, Repair, Operations) isn't just a side project—it's a core part of what we do. And much of that magic happens at our Cortec® Spray Technologies (CST) plant in Spooner, Wisconsin.

From rust preventatives to custom lubricants, CST is where ideas become the next spray can on your shelf—serving everyone from major industry players with ongoing contracts to startups needing short-run fills that most contract fillers won't touch. Whether it's a Cortec®-labeled classic like CorShield® VpCI®-369, a private-label product for a client's brand, or a customer's own formula, CST is here to make your spray can innovations a reality.

To shed light on how it all works, here's a quick Q&A from our aerosol lab experts.

Q: What kinds of spray can products do you formulate?

A: The bread and butter of our work includes lubricants, cleaners, and rust preventatives—all staples of the MRO world. But we're not limited to the expected. Over the years, we've developed everything from light adhesive sprays to a litter box deodorizer. Thanks to Cortec's wide library of corrosion inhibitors, we can adapt existing formulas or create something completely new with your needs in mind.

Q: How do you adapt my product to aerosol form?

A: Transforming a liquid into an effective aerosol involves more than just packaging—it requires precise formulation. We help adjust viscosity for sprayability and guide you through selecting the right solvent and propellant. Want something more eco-conscious? We'll explore bag-on-valve technology, which replaces traditional propellants with compressed air—especially great for water-based formulas.

We'll formulate and send you samples until you find the right fit. It's collaboration at its best.

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Q: What propellants do you have?

A: We have CO2, A-70, and Solstice® ze (R-1234ze)* available as propellants. We also offer EcoAir® bag-on-valve technology, which uses compressed air instead of traditional propellant to force the product out of a special pouch inside the can.

Q: What spray patterns are available?

A: Spray top options are all about control and coverage. Need a light, wide mist? A powerful, narrow stream? Something that can spray from several feet away? We can tailor the spray diameter, distance, and force to your exact requirements—just let us know your ideal application zone, and we'll take it from there.

Q: Can I reuse the valves from my previous filler?

A: Often, yes. CST offers a wide selection of valve types, and we do our best to match or replicate existing hardware—though some may require a minimum order quantity. If your old valve isn't a perfect match, we'll work with you to find a reliable alternative that meets your product's performance needs.

Q: What kind of quality control (QC) processes do you do to ensure cans are the right weight, pressure, and crimp depth and don't leak?

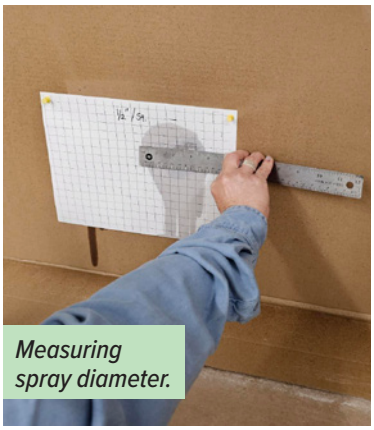
A: We have a variety of tools and tests to ensure the quality and uniformity of products formulated and packed at CST. These include monitoring crimp depth and can pressure with special instruments, running cans through a water bath test to check for leaks, checking spray shape and diameter, and weighing cans on a scale.

From Prototype to Production—CST Has You Covered

At CST, we take pride in guiding each customer through the aerosol journey—from product concept to a fully functional spray can ready for market. With decades of formulation experience and a nimble production team, we're here to help you launch your next great MRO product! Learn more about CST here.

Cans coming out of water bath testing.

Spray pattern test.



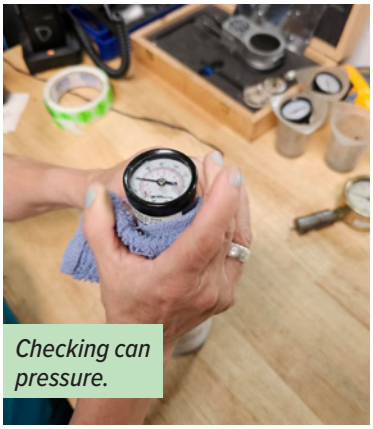
Measuring spray diameter.

Checking spray rate.

Checking valve crimp depth with digital gauge.

Checking can weight.

Checking valve crimp diameter.



Checking can pressure.

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