

# The LEADING Edge

May 2009



From left to right: Boris Miksic (Cortec® President and CEO), Angel Green, Kristy Gillette, Andrea Hanson, and Cliff Cracauer of Cortec® Corporation at NACE 2009



## Cortec® at NACE 2009

The 2009 NACE Corrosion Conference and Expo was held in Atlanta, Georgia on March 22-26. This year Cortec® had one presentation at “CO<sub>2</sub>/H<sub>2</sub>S Corrosion in Wet Hydrocarbons Containing Environments Symposium” by Boris Miksic, Cortec’s President/CEO, and three speakers presented laboratory/field work in the technical symposium, “Advances, Novel Applications and Measurement of Vapor Corrosion Inhibitors” chaired by Cortec’s own Cliff Cracauer. Boris Miksic presented “Effectiveness of the Corrosion Inhibitors for the Petroleum Industry under Various Flow Conditions” co-authored by Margarita Kharshan and Alla Furman. This paper discusses the corrosion inhibitors that can be used successfully with drag reducing components in pipeline applications.

Andrea Hansen addressed “Anti-Corrosion Building Blocks for Open Recirculating Loop Cooling Systems” written by co-authors Alla Furman, Margarita Kharshan, and Elizabeth Austin. This paper showed corrosion data of several VpCI® water treatment products including S-69, VpCI®-649, and S-14 Bio collected in lab studies and the pilot cooling tower. The paper “Novel Approach to the Tank Lining Coatings” was discussed by Angel Green (co-authored by Chuck Ludwig, Universal Corrosion Specialists). This paper presented lab data along with real life experience on tanks in Texas using CorrVerter® and VpCI®-396 to protect tanks holding corrosive substances. The system works better and creates much less VOC than traditional alternatives. Kristy Gillette presented on the paper “Modern Advances in Environmentally Friendly Vapor-Phase Corrosion Inhibiting Coatings: Expanding the Realm of VpCI® Packaging.” The five new VpCI® packaging products covered were VpCI® Anti-Grease Paper, VpCI® Anti-Skid Linerboard, VpCI® Cohesive Film, VpCI® Water Resistant Paper, and VpCI® Masking Film.

We are now submitting abstracts in preparation for NACE 2010!

### In this issue:

- ISO 14000 Environmental Management System (EMS) passed its annual audit.
- Packaging World: BioPad™, VpCI®-309 Pouch, EcoPouch, and MilCorr® Preserves Rocket Launch Pad
- Process Additives: VpCI®-637 GL
- Expanding the MCI® Line: MCI® Creteskin™ and PTC Emitters

## More products than ever made from biodegradable and renewable raw materials.

In March, Cortec's ISO 14000 Environmental Management System (EMS) passed its annual audit by NQA. Each year for the past 11 years, an outside company has verified that Cortec's EMS is conforming to the ISO standard, as well as working toward goals to increase environmental performance. Cortec® HQ has a few main goals including increasing the usage of biodegradable raw materials (RMs) and renewable (sustainable) RMs by 5% over the previous year's usage.

Cortec® actually increased usage of biodegradable RMs by 31.9% over the previous year and renewable RMs increased by 153%. As the number of renewable and biodegradable materials used in products made by Cortec® increases; and as customers support these products with purchases, we hope the goals will continue to break records. These products are a great achievement versus corrosion inhibitors of the past and Cortec® wants to remain a leader in the sale and creation of products that help us fight corrosion without harming the Earth.

### ***It's that time again!***

Cortec's World Sales and Strategy Meeting will be held in St. Paul at Cortec® Headquarters and the St. Paul Hotel.

## Packaging World

### BioPad™, Patent Pending

Cortec® Corporation is excited to introduce BioPad™ as our newest eco-friendly, high performance VpCI® packaging product. BioPad™ is constructed from 100% biobased non-woven materials impregnated with a high dosage of VpCI®. BioPad™ provides up to 2X as much corrosion inhibiting action as related foam products. Not only is BioPad™ biobased but its high VpCI® concentration in combination with its thin design results in a reduction of packaging materials by up to 94% in comparison to similar impregnated foam products! BioPad™ offers excellent contact and vapor-phase corrosion inhibition (VpCI®) to both ferrous and non-ferrous metals. BioPad™ will be available after June 1st in a variety of sizes, please contact a customer service representative for more details.



Bio Pad™

### EcoPouch and VpCI®-309 Pouch

Cortec® Corporation is pleased to announce that two of our most popular VpCI® powders are now available in breathable Tyvek® pouches. The unique construction of these pouches provides a clean, easy method of application. There are no dosage rates to determine, no concentrations to calculate, and no equipment required for application; simply determine how many pouches are required per unit space and distribute. VpCI®-309 Pouch and EcoPouch (VpCI®-609) are available in two stock sizes, 6"x7" and 6"x10", for the protection of up to 1m³ and 3m³ respectively and packaged 50 pouches per carton. Custom sizes and constructions are available; please contact Tessa Babcock for details.



VpCI®-309 Pouch and EcoPouch

## MilCorr® Preserves Rocket Launch Pad

NTO Priborservice, Russian distributor of Cortec® Corporation, has received a request from the factory “Permsky Mashinostroitel” to help with the protection of the launch pad assemblies of Arianespace rockets. These rockets are launched from the Guyana Space Center. The goal was to suggest the best way to preserve this equipment with long term protection during the transportation: from Ural by rail road, then shipped across the Atlantic Ocean to Guyana, and finally trucked to the launch area.

For this project, NTO Priborservice suggested MilCorr® as a basic material and for some areas Cor-Pak® VpCI® Stretch film. This suggestion was accepted by the customers. The engineers from NTO Priborservice showed master-class in the application technique (see pictures). When these assemblies reached the customers and were inspected, no signs of any corrosion was found, perfect protection!



## Process Additives

### VpCI®-637 GL is Modified

We recently modified our current VpCI®-637 GL in a way to make it more universal for different application requirements. The feed back from customers about VpCI®-637 GL included the following requests:

- *To make it more water soluble*
- *Keep it non-foamy for natural gas applications*
- *Make low emulsification numbers for easy oil and water separation*
- *Non-flammable for the convenience of manufacturing*
- *Lower the transportation cost and storage precautions*

All listed goals were accomplished in the renewed formulation VpCI®-637 GLE. A sample of VpCI®-637 GLE was already successfully tested by a customer.

## New Publications in 2009 Magazines

1. Biodegradable Corrosion Inhibitor Packaging for Electronic Equipment
2. Use of Vapor Phase Corrosion Inhibitors for Galvanized Steel Protection

## Expanding the MCI® Line

### MCI® Creteskin™

MCI® Creteskin™ is an industrial strength release agent containing Cortec's Migratory Corrosion Inhibitors. It is designed to protect equipment, vehicles, and forms in the construction industry. This protective coating inhibits the adhesion of concrete, other cementitious materials, and salts on treated surfaces. It provides corrosion protection to the underlying substrate enabling continued use and a longer service life. MCI® Creteskin™ can also be used as a sacrificial anti-graffiti coating.

Test Name	Result
5% Caustic Soda Spot test	24 hours no effect
20% HCl spot test	30 hours no effect
Salt spray resistance, ASTM B-117	168 hours
Humidity resistance ASTM D-1748	500 hours
Water Immersion	2000+ hours, no effect.

While Cortec's well known MCI®-2050 is designed to be reapplied after each use, MCI® Creteskin™ would only need to be reapplied periodically depending on wear. On chassis applications, it can last up to three years.



Before



After

### PTC Emitter

Cortec® Corporation is pleased to introduce PTC Emitters to the MCI® product line. PTC Emitters are constructed from breathable Tyvek® which allows for an efficient, clean, dry, and easy method of corrosion protection. The unique construction of PTC Emitters allows vapor-phase corrosion inhibitors (VpCI®) to be emitted through the Tyvek® pouch. The inhibitor can then form a protective layer on all metallic surfaces and recessed areas providing corrosion protection to both ferrous and non-ferrous metals.

PTC Emitters are ideal for the protection of bridge tendons, post tensioning cables, tubular structures, as well as parts and equipment during shipment and storage. PTC Emitters are available in two stock sizes, 6"x7" and 6"x10", for the protection of 1m<sup>3</sup> and 3m<sup>3</sup>, respectively, and are packaged 50 pouches per carton.



PTC Emitter

