



April 1, 1997

NEWS RELEASE

**New VCI Packaging Wrap Combines  
Economy of Paper With Protection Strength of Polyethylene**

Cor-Pak™ II VCI film offers the low cost pricing of VCI/VPI paper wrap combined with the advantages of a high-density polyethylene film coated with vapor corrosion inhibitor (VCI).

Cortec chemists have been able to incorporate the performance capabilities of their Cor-Pak™ I (1 mil thick) high-density polyethylene film into a ½ mil version. Its ½ mil thickness makes Cor-Pak™ II film an ideal material for use in packaging metals at substantial cost savings over thicker PE films. It can be used as interleaving between layers of metal parts to prevent corrosion, as wrapping for small to medium size components, and as top layer sheeting for foam-in-place packaging.

Cor-Pak™ II protects both ferrous and non-ferrous metals from rust, oxidation, and other forms of corrosive attack for up to two years. Compared to VCI/VPI papers, the new HDPE wrap reduces moisture and sulfur contamination. Additionally, it provides a superior moisture barrier, higher stretch and puncture resistance. The Cor-Pak™ II's greater flexibility makes it easier than paper to wrap products with. As a transparent film, it allows the user to easily identify the part and its condition without unwrapping the package. Cor-Pak™ II offers many advantages over VCI/VPI Papers, yet costs less.

Cor-Pak™ II VCI HDPE film is available in 1200 foot rolls or other custom sizes. Parts that have been protected with Cor-Pak™ II can be used immediately without cleaning or degreasing. After unwrapping a component, Cor-Pak™ II is suitable for recycling and does not require special landfill handling for disposal.

**Editor:** Photo enclosed shows product packaged with Cor-Pak™ II VCI film.

**For Further Information Contact:**

Joe Foley, Custom Packaging Sales Manager at (612) 429-1100. Cortec® is located in White Bear Lake, Minnesota. They manufacture a variety of corrosion inhibiting and rust preventive systems based on Vapor Corrosion Inhibition Technology that the company has been instrumental in pioneering.





May 15, 1997

## PRODUCT RELEASE

### **New Anti-Pollution Rust Preventive**

Cortec® Corporation has developed a new type of rust preventive liquid which is designed specifically to meet today's tough anti-pollution requirements. Called Cortec VCI-379, the new rust preventive is water-based, biodegradable, non-toxic and does not contain any nitrites or hazardous chemicals. Formulated with a powerful blend of anti-corrosive agents and proprietary VCIs, the product offers a complete replacement to rust preventive oils used for steel, copper, cast iron, aluminum and galvanized steel.

This special formulation provides better protection than rust preventive oils to precision machined parts, castings, and forgings. Parts treated with VCI-379 are protected against corrosion for up to two years of indoor storage or shipment. Readily soluble in water, the user simply determines the length of protection desired and dilutes the concentrate with water.

In addition to providing contact protection, VCI-379 also provides rust protection for difficult to reach areas, voids, hollows, and other recessed surfaces. Designed with water displacing characteristics, it is also an effective treatment for protecting large tanks and vessels after hydro-testing.

Cortec VCI-379 can be applied by dip or spray. It forms a clear and dry film which gives parts a more attractive looking finish. The finish coating can be left on parts that will be primed, painted or welded. When needed, the coating can be easily removed through an alkaline wash.

As a water-based replacement for oils, Cortec VCI-379 eliminates the cleaning and housekeeping problems associated with rust preventive oils. It also promotes a better working environment while reducing liability and costs associated with oil type rust preventives.

**Editor:** Photo enclosed shows Cortec VCI-379 used to protect metal parts.

**For Further Information Contact:**

Markus Bieber, Sales Manager, Coatings and Metalworking Products for Cortec<sup>®</sup> Corporation at (612) 429-1100. Cortec<sup>®</sup> is located in White Bear Lake, Minnesota. They manufacture a variety of corrosion inhibiting and rust preventive systems based on Vapor Corrosion Inhibition Technology that the company has been instrumental in pioneering.





August 25, 1997  
PRODUCT RELEASE

**New Static Dissipative Bags**  
**Protect Against ESD and Corrosion**

New static dissipative bags from Cortec® Corporation provide multimetal protection for PC boards, ICs and PCB components. In addition to protecting boards from electrostatic discharge, the new bags stop corrosion of solder, gold, copper, silver, cadmium, zinc, steel, nickel and various plated substrates without influencing polycarbonates. The new bags help assure the functional integrity of the components from factory to field after export shipment or years of storage.

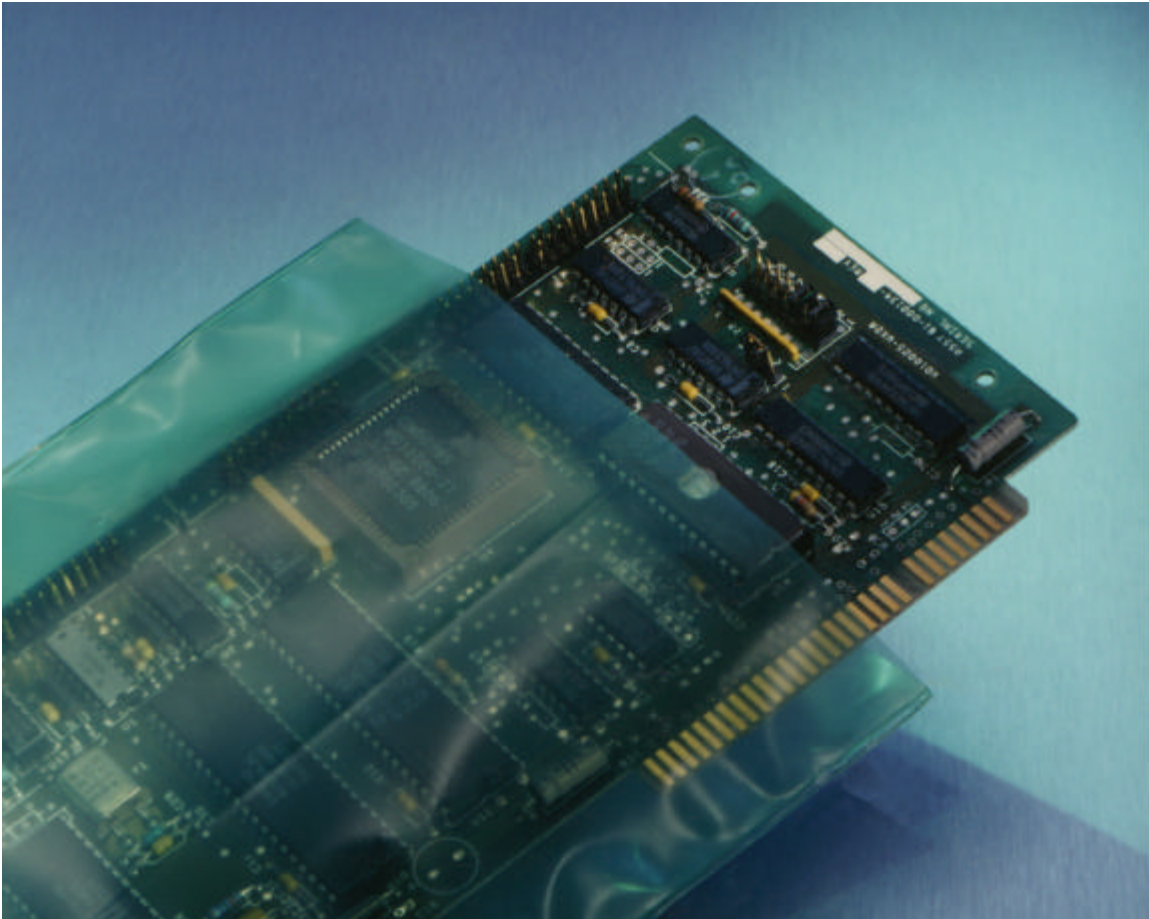
The new bags contain a unique Vapor Corrosion Inhibitor, **VCI**, which provides a continuous monomolecular protective layer on all metal surfaces. Seal components inside the VCI-125 bag and the VCI will immediately vaporize and begin protection. The VCI is attracted by and attaches to all exposed metal surfaces including recessed areas, voids, and any metal in air-accessible electronic packages. The Cortec VCIs reach all areas where corrosive agents can travel, and prevent their harmful attack by forming a protective ionic barrier around the metal. Cortec's patented VCI technology provides years of protection to components sealed in the bags.

Cortec VCI-125 bags are available in standard and custom sizes in both heat sealable and Zip-lock® form. The bags meet Type II requirements under MIL-B-81705C, Barrier Materials. The static dissipative properties of VCI-125 Bags are humidity independent by utilizing a unique composition that does not require the presence of moisture to function. VCI-125 Bags provide clean protection. Components can be removed from the bags and put into use immediately without any cleaning or dusting.

**Editor:** Photo enclosed shows Cortec® VCI-125 Static Dissipative Bag used to protect PC board from ESD and corrosion.

**For Further Information Contact:**

Ray Lehman, Sales Manager, Electronic Products for Cortec® Corporation at (612) 429-1100, Ext. 170. Cortec® is located in White Bear Lake, Minnesota. They manufacture a variety of corrosion inhibiting and rust preventive systems based on Vapor Corrosion Inhibition technology that the company has been instrumental in pioneering.





September 22, 1997

PRODUCT RELEASE

**Cor-Pak™ Tablets Provide  
Pain Reliever for Rust Problems**

Cortec® Corporation's Cor-Pak™ Tablets offer an easy solution to an old problem, corrosion for small metal parts. Cor-Pak™ Tablets provide an answer that is as easy as taking two aspirin. With Cor-Pak™ Tablets, the user simply pops a few tablets in a box, bin, plastic bag or plastic sleeve and the problem of rust and corrosion is prevented. There is no oily mess, spraying, dipping or wiping. The process is clean, safe and simple. The user then just closes the box and Cor-Pak™ Tablets immediately go to work.

Cor-Pak™ Tablets are based on Cortec's patented Vapor Corrosion Inhibitor (VCI) technology. The tablets release corrosion inhibiting agents that travel with the air. The VCIs seek out metal surfaces and then form a thin protective film against corrosive attack. The VCIs' special properties allow them to protect hard-to-reach areas such as crevices, voids, and recessed areas. This unique capability allows superior protection compared to traditional rust preventives and VPI papers.

Cor-Pak™ Tablets are user and environmentally friendly. The tablets can be conveniently used at anytime to protect clean components during in-plant processing, storage, or shipment. Parts require no degreasing or cleaning before further processing or use because the tablets provide clean protection. Parts can be used immediately in final product assembly or field installation without any cleaning required. Additionally, because the tablets are non-toxic and environmentally friendly, there are no hazardous chemical concerns or extra disposal costs.

In addition to putting Cor-Pak™ Tablets into boxes or containers by hand, the tablets can be inserted into containers with automated dispensing systems used for packaging components and products in corrugated boxes, plastic wrap or bags, or metal or wood containers. The tablets provide up to 24 months of protection for ferrous, non-ferrous, and multimetal parts including steel, aluminum, copper and brass.

**Editor:** Photo enclosed shows box with Cor-Pak™ Tablets used to protect multimetal parts.

**For Further Information Contact:**

Tom Nelson, Sales Manager, Packaging Products for Cortec® Corporation at (612) 429-1100. Cortec® is located in White Bear Lake, Minnesota. They manufacture a variety of corrosion inhibiting and rust preventive systems based on Vapor Corrosion Inhibition technology that the company has been instrumental in pioneering.





December 6, 1997

Product Release

### **Sealer Protects and Preserves Concrete By Chemical Action**

Cortec's patented MCI<sup>®</sup> 2021 is a surface-applied concrete sealer, containing a proprietary blend of reactive silicates, surface-active agents, and Cortec's time-tested Migratory Corrosion Inhibitors<sup>™</sup>.

MCI<sup>®</sup> 2021 preserves and protects by working with the chemistry of concrete. Its reactive silicates penetrate the concrete up to 1 ½ inches. There, they react with calcium in the concrete to form reaction products that build insoluble silicate structures. These new structures increase the density of the concrete, seal surface pores, and waterproof the surface. The resulting protective barrier prevents the intrusion of chloride and carbonation, and protects against acid and alkali attack. Yet the concrete's ability to breathe is completely unaffected.

At the same time, Migratory Corrosion Inhibitors<sup>™</sup> (MCIs) go to work to extend the service life of the concrete structure. MCIs migrate through even the most dense concrete structures and seek out the steel reinforcing bars within. There, MCIs form a monomolecular barrier that provides strong protection against corrosion. MCIs will protect a wide variety of metals, including carbon steel, galvanized steel, and aluminum. In addition to inhibiting further corrosion, MCIs retard any existing corrosion.

MCI<sup>®</sup> 2021 is recommended for all concrete structures, including bridges, highways, streets, parking ramps, piers, pile, pillars, pipe, and utility poles.

**Editor:** enclosed photo shows application of Cortec MCI<sup>®</sup> 2021 sealer to concrete.

#### **For Further Information Contact:**

Chuck Suchy, Sales Manager of Construction Products for CORTEC<sup>®</sup> Corporation at (612) 429-1100. CORTEC<sup>®</sup> is located in White Bear Lake, Minnesota. They manufacture a variety of corrosion inhibiting and rust preventive systems based on Vapor Corrosion Inhibition Technology that the company has been instrumental in pioneering.





February 6, 1998

## PRODUCT RELEASE

### **Corrosive Attack in Pipelines Stopped by Vapor Phase Action**

Cortec® VCI-629 offers a powerful combination of corrosion inhibitors that stop aggressive corrosive attack in crude transmission from the well-head to the refinery. The Cortec product combines contact inhibitors with vapor phase inhibitors to protect pipelines, tanks and vessels from corrosive fluids such as crude oil, brine, corrosive gases and oil/water combinations. With Cortec's patented VCI technology, VCI-629 forms a persistent barrier for continuous protection of the pipeline at the liquid and vapor phases, and the interface (see enclosed color diagram.)

Cortec's unique vapor phase action protects those areas which are inaccessible through direct contact solutions. Cortec VCIs are highly mobile, traveling wherever gases can reach. This unique characteristic allows Cortec VCIs to combat internal corrosion. They offer special protection to pipelines, pumping stations and the internal parts of equipment during low fluid levels when attack from corrosive gases increases. During periods of lower production and crude transmission, the VCIs again provide an important form of protection against corrosive gases, as well as water intrusions and pitting for overhead units, voids in pumps and valves, and upper areas of storage tanks.

Cortec® VCI-629 can be used in batch or continuous mode depending on the treatment method preferred. It combines easily in both hydrocarbon and water solutions. It provides fast acting protection for both ferrous and non-ferrous metals in the presence of fresh water, brine, halogens and corrosive gases such as dissolved oxygen, carbon dioxide and hydrogen sulfide. Cortec® VCI-629 can be introduced at the well-head as well as intermittent injection points along the pipeline. The material does not affect downstream processing of crude oil.

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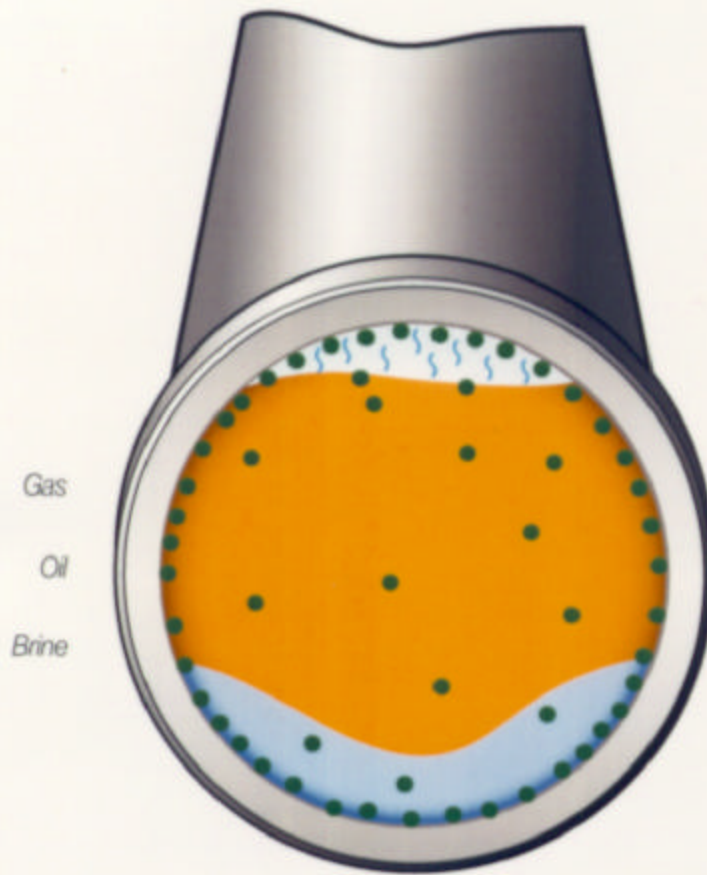
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In addition to pipelines and well-heads, Cortec® VCI-629 can be used to protect offshore equipment, tankers, pumps, pipes, production and storage tanks.

**Editor:** Enclosed diagram of pipeline section shows active VCI protection at the liquid and vapor phases, and the interface.

**For Further Information Contact:**

Tina Weaver, Sample Leads Coordinator for Cortec Corporation, (612) 429-1100. Cortec is located in White Bear Lake, Minnesota. They manufacture a variety of corrosion inhibiting and rust preventive systems that the company has been instrumental in pioneering.



*Pipeline section shows active VCI protection at the liquid phase, the vapor phase and the interface.*



February 18, 1998

PRODUCT RELEASE

**New Wipe Cleans And Degreases,  
Removes Rust And Stops Further Corrosion**

A brand new, revolutionary wipe from Cortec<sup>®</sup> lets you clean, degrease, remove rust or tarnish and stop further corrosion all in one product, the Corwipe<sup>®</sup> 300. Each Corwipe<sup>®</sup> comes ready-to-use in a small pouch. No chemical mixing is required. Simply tear open the pouch, unfold the wipe and you are ready to clean and protect your metal part, component or tool.

Corwipes<sup>®</sup> offer a safe and convenient replacement to harsh and hazardous sprays and jellies. The wipes have been specially made so that they can be used without the need for gloves. They have a fresh, lemon scent to provide any work area with a clean aroma. The Corwipe<sup>®</sup>'s chemical formulation is made with water-based, non-flammable and non-hazardous chemicals for easy disposal.

Corwipes<sup>®</sup> offer a convenient method to clean-up rusty and tarnished parts and tools. Rather than having to pour liquid chemicals into rags or soak metal parts in different hazardous chemical tanks, you just rub the part with a Corwipe<sup>®</sup>. No mess, no spills, no unpleasant odors. One Corwipe<sup>®</sup> does the work of three different products. You cut through oil and grease, wipe away old rust and tarnish, and protect against further corrosion. While cleaning, the Corwipe<sup>®</sup> leaves behind a thin coating to prevent new rust or tarnish for several weeks or months depending on environmental conditions. The wipe's special cleaning action is effective for steel, brass, aluminum, copper and bronze.

Corwipes<sup>®</sup> make a handy maintenance tool to clean-up and protect machinery, pumps, controls, connections or engines that have grease and oil build-up. Instead of carrying several bottles of chemicals, you can easily place a half dozen Corwipe<sup>®</sup> pouches in any maintenance kit or tool box. They are safer and more convenient to use than liquid solvents and cloth rags. You eliminate the worry of chemicals in the atmosphere, flammability, or accidental chemical spills.

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In manufacturing, multi-purpose Corwipes® can be used for final touch-up on metal parts to remove light rust as well as oils and waxy films before painting or assembly, while leaving a protective base. This cleaner with corrosion inhibiting properties is also ideal for quick spot cleaning of precision parts, measurement devices and office equipment, cabinets, and lighting.

**Editor:** Photo enclosed shows dirty pump component in which the right side has been cleaned, de-rusted, and protected against rusting with a Cortec Corwipe®.

**For Further Information Contact:**

Ray Lehman, Corwipe® Product Manager of Cortec Corporation at (612) 429-1100. Cortec, a pioneer in Vapor Corrosion Inhibition technology, is located in White Bear Lake, Minnesota. They manufacture a variety of corrosion inhibiting and rust preventive systems.



# CORWIPE 300

- Degreaser
- Rust Remover
- Corrosion Inhibitor for Multimetals

 **CORTEC**  
CORROSION PREVENTION



February 18, 1998

PRODUCT RELEASE

**New Wipe Cleans and Protects Electrical and Electronic Parts and Assemblies — While Eliminating Static Charge.**

With just a simple wipe of a Corwipe® 450, you can clean, protect against corrosion, and eliminate static build-up from electronic parts and assemblies all at the same time. There's no mixing of chemicals. Each Corwipe® comes ready to use in a small pouch. Just tear open the pouch, unfold the wipe, and you are ready to clean and protect electrical equipment. Corwipe® 450 is ideal for field repair work in offices, homes, and commercial settings, as well as factory benchwork. Corwipes® are an environmentally safe and convenient replacement for chemical liquids and aerosol sprays used to protect and clean electrical equipment. The wipes eliminate chemical spills and exposure to chemical vapors in the atmosphere.

In many cases, Corwipe® 450 quickly repairs faulty electronic components. Experienced technicians know that many seemingly "bad" components and accessories only need to have contacts and connectors cleaned. With a simple wipe, dirty and corrosion-fouled connections are renewed, static build-up is eliminated, and the problem is fixed. Manufacturers, owners, and service departments can save money, and reduce downtime of electronic equipment. Corwipe® 450 also leaves a micro-thin layer of contact and vapor corrosion protection wherever it is used, extending the life of electrical components.

Corwipe® 450 can be used on electronic components, electrical parts, connectors, and contacts. Corwipes can also be used to clean exterior surfaces of sensitive electronics such as computers, keyboards, monitors, telephones, fax machines, and copiers.

Corwipe® 450 is formulated using water-based, non-hazardous, and non-flammable chemicals. The wipes have been specially designed for use without gloves, plus no special procedures are required for disposal.

**Editor:** Photo enclosed shows new Corwipe® 450 cleaning and protecting electronic components.

**For Further Information Contact:**

Ray Lehman, Corwipe® Product Manager of Cortec Corporation at (612) 429-1100. Cortec, a pioneer in Vapor Corrosion Inhibition technology, is located in White Bear Lake, Minnesota. Cortec manufactures a variety of corrosion inhibiting and rust-preventive systems based on Vapor Corrosion Inhibition technology.





February 19, 1998

PRODUCT RELEASE

**Add Corrosion Protection to Water-based Fluids and Coatings**

M-370 is a new liquid-concentrate corrosion preventive for all metals. It is soluble in virtually any water-based fluid. M-370 resists corrosion from environmental sources and from the water in water-based products. It can be applied in several ways: 1) mixed with water — just spray it on; 2) added to water-based cutting fluids, lubricants, cleaners, and temporary coatings; or 3) added to water-based paints and coatings as a flash rust inhibitor.

M-370 has been proven effective. It passes both the Cast Iron Chip Corrosion Test (ASTM D4627-86) and the Humidity Cabinet Test (ASTM D1748). M-370 protects metal surfaces with Cortec's VCI (Vapor Corrosion Inhibitor) and MCI<sup>®</sup> (Migratory Corrosion Inhibitor<sup>™</sup>) technology. It forms a corrosion-resistant, micro-thin layer on metal surfaces. At the same time, free ions of M-370 vaporize to and protect nearby surfaces — even those that may be impossible to reach directly with coating equipment. It gives metals a clear, dry, attractive appearance.

Since it remains effective for up to two years, M-370 is ideal for protecting parts in storage. It can be removed with conventional alkaline cleaners — but in many cases, there is no need for removal. When applied in concentrations of 2-10%, M-370 does not affect the machining, welding, or frictional characteristics of metals and allows excellent adhesion of subsequently applied coatings.

M-370 is non-toxic, non-flammable, and biodegradable. It contains no nitrite compounds or phosphate esters and will not clog filtration systems. No special disposal procedures are required.

**Editor:** Photo enclosed shows a metal part protected with Cortec M-370.

**For further information, contact:**

Fred Budde, Cortec<sup>®</sup> M-370 product manager at (612) 429-1100 x 126. Cortec, a pioneer in Vapor Corrosion Inhibition technology, is located in White Bear Lake, Minnesota. Cortec manufactures a variety of corrosion inhibiting and rust-preventive systems based on Vapor Corrosion Inhibition technology.





**March 31, 1998  
PRODUCT RELEASE**

**Water-based corrosion inhibitor  
meets all indoor needs**

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Cortec® VCI-377 is a new water-based rust preventive coating that allows users to work with a single product for all their indoor corrosion-prevention needs. When mixed with water at concentrations as low as 2.5%, VCI-377 is an excellent final rinse that temporarily prevents flash rust. And, at concentrations up to 20%, VCI-377 can be used to coat metal parts and assemblies for long-term protection during indoor storage.

VCI-377 is specially formulated for application by all conventional methods, including power wash, portable spray, dip, and brush. At concentrations up to 10%, VCI-377 does not need to be removed prior to further processing of parts because it has no effect of the machinability, conductivity, or surface characteristics of metals. Higher concentrations of VCI-377 are easily removed with alkaline wash.

VCI-377 incorporates Cortec's unique VCI (vapor corrosion inhibitor) technology, which forms a hydrophobic film on metal surfaces. Though the film is only a few microns thick, it is impervious to humidity and resists temperature fluctuations in all indoor and sheltered environments. VCI-377 passes the ASTM D4627-86 cast iron chip test at a concentration of 2.0%.

VCI-377 completely replaces environmentally harmful oil-based rust preventives, giving manufacturers a cleaner, safer, less costly way to protect all ferrous and non-ferrous metals from corrosion. VCI-377 contains no nitrites, silicones, phosphates, or other contaminants and is completely safe for humans and the environment. VCI-377 has a non-irritating odor, is low foaming, is stable in hard water, and meets the requirements of the Southern California Clean Air Act and other local regulations. The cured VCI-377 film is stable up to 350° (177° C) and is non-flammable.

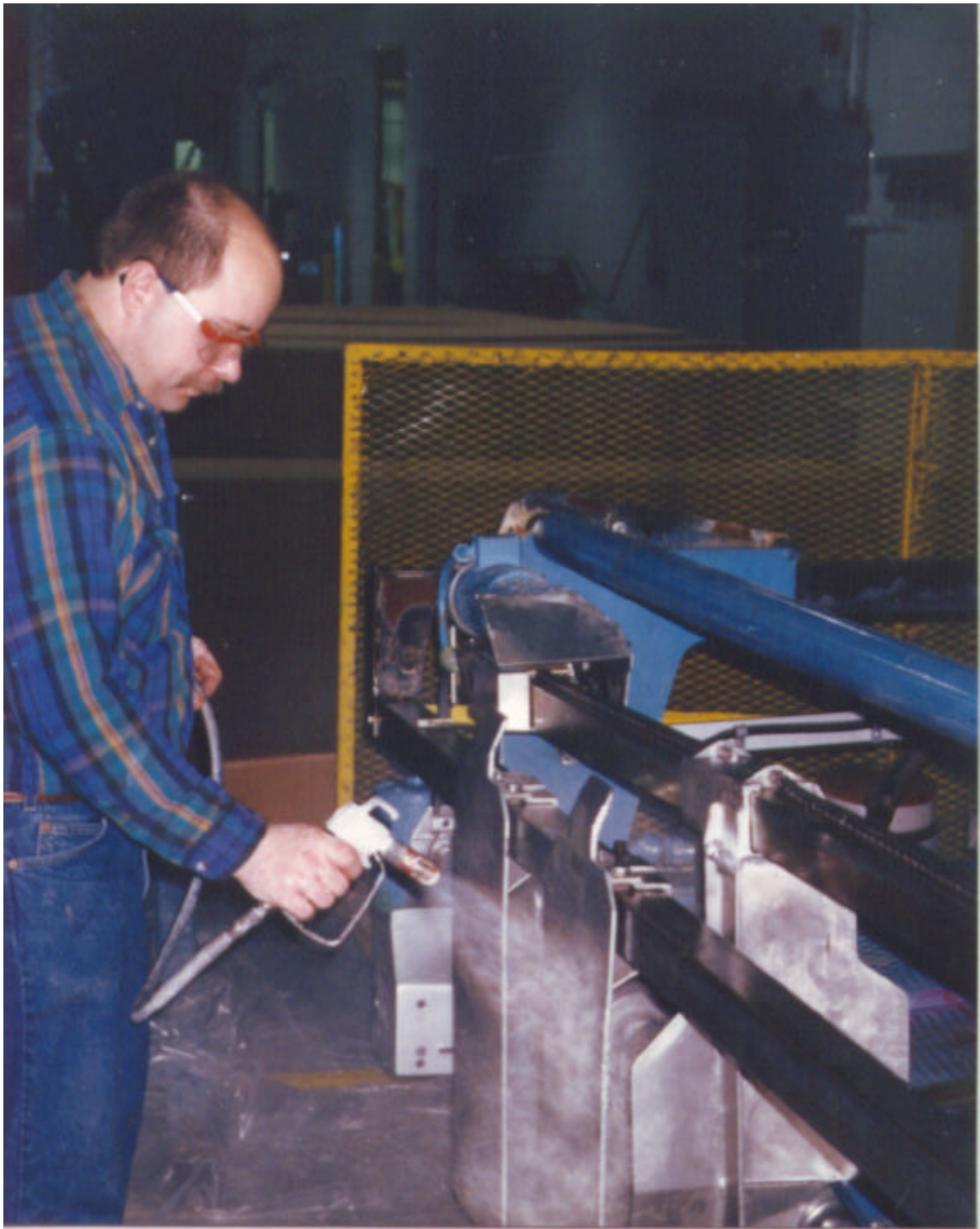
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VCI-377 is ideal for protecting castings, tubular parts, gears, pumps, housings, textile and printing equipment, structural steel, sintered metals, bars, and roll stock. It also works effectively when used as an additive in hydroblasting, hydrotesting, and parts cleaning and rinse water systems.

**Editor:** Enclosed photo shows spray application of VCI-377.

**For further information, contact:**

Markus Bieber, Cortec's product manager for coatings, metalworking, and cleaners, at (612) 429-1100. Cortec, a pioneer in Vapor Corrosion Inhibition technology, is located in White Bear Lake, Minnesota. Cortec manufactures a variety of corrosion inhibiting and rust-preventive systems based on Vapor Corrosion Inhibition technology.





**April 6, 1998  
Product Release**

**Cortec® VCI-148 paper receives top award  
in 3M's Scotchban Innovation Awards**

Cortec Corporation's new VCI-148 grease- and oil-resistant packaging paper has received both the top award in the paper division and the "Pick of the Pack" designation — the overall top award — in 3M's 1997 Scotchban Innovation Awards. These awards recognize packaging products for their cost-effectiveness, marketability, and positive effect on the environment. Bruce Anderson, representing Earth Day USA as a judge in the competition, commented that VCI-148 is "an extremely innovative product [with] good market potential."

VCI-148 is a packaging paper that simultaneously protects metal parts from corrosion and prevents oil from seeping through the paper. These features make VCI-148 ideal for packaging ferrous and non-ferrous metal parts shipped with intentional oil coatings or with remnants of drawing fluids or cutting lubricants.

VCI-148 paper prevents corrosion by emitting VCIs (vapor corrosion inhibitors). VCIs are chemically attracted to all metals, where they form an effective corrosion barrier only a few molecules thick. Parts packaged with VCI-148 arrive corrosion free and ready for use. The VCI barrier requires no cleanup because it does not effect the machinability, conductivity, or surface characteristics of metals and does not impede painting.

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Key factors in VCI-148's selection as Pick of the Pack are its environmental characteristics. The paper is 100% recyclable, repulpable, and chloride free. And because VCI-148 stops oil migration, it eliminates the need for the nonrecyclable waxed papers and laminates previously used in packaging.

VCI-148 paper is available in several standard-sized rolls and can be custom-made for special needs.

**Editor:** Enclosed photo shows a metal product ready to be wrapped in VCI-148 paper.

**For further information,** contact Tom Nelson, Cortec's product manager for packaging products, at (612) 429-1100. Cortec, a pioneer in Vapor Corrosion Inhibition technology, is located in White Bear Lake, Minnesota. Cortec manufactures a variety of corrosion inhibiting and rust-preventive systems based on Vapor Corrosion Inhibition technology. Cortec Corporation has received ISO 9001 - 14001 certification from BVQI.





April 20, 1998

### Product Release

#### **Stick-on corrosion inhibitor is a standard component in electronic equipment**

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Cortec's patented VCI-111 emitter is a cost-effective way to build corrosion prevention into electronic equipment. The VCI-111 emits a powerful corrosion-fighting chemical that forms a micro-thin film on all metal surfaces. The emitter begins protecting sensitive components and contacts as soon as the cabinet is closed, and protection lasts up to two years. The VCI-111 eliminates the need for expensive anti-corrosion dips and coatings — and with the VCI-111 on guard, a less expensive enclosure can be used for many types of equipment.

The VCI-111 is perfect for OEM electronic assemblies because it is small — just 2 3/8" in diameter and 1/4" deep — and because installation is a snap. Just stick the emitter's adhesive back to the wall — no surface preparation is needed.

The VCI-111 prevents corrosion in equipment subjected to high humidity and salt air — so it is especially important in equipment shipped overseas. Upon reaching its destination, equipment is corrosion-free and ready for immediate use because there's no need to remove VCI protection. The micro-thin coating has no effect on electrical characteristics. Each VCI-111 can protect an enclosure up to 11 cubic feet (0.312 cubic meters) in volume. For cabinets larger than 11 cubic feet, additional VCI-111s will provide effective corrosion protection.

The VCI-111 is required in electronic equipment by a growing list of major electronics buyers, including the US. Navy (NSN#6850-01-406-2060 and NSN#6850-01-408-9025), the City of Chicago Water Reclamation District, and America's largest auto maker. Typical applications for the VCI-111 include PCs and mainframes, programmable logic controllers, process control panels, aircraft instruments, photo-electronic equipment, motors, connectors, relay assemblies, and HVAC equipment.

The VCI-111 contains no nitrites, silicones, phosphates, or other contaminants and is completely safe for humans and the environment.

**Editor:** Enclosed photo shows VCI-111 emitter inside a computer CPU.

**For further information, contact:**

Ray Lehman, Cortec's emitting systems product manager at (612) 429-1100. Cortec, a pioneer in Vapor Corrosion Inhibition technology, is located in White Bear Lake, Minnesota. Cortec manufactures a variety of corrosion inhibiting and rust-preventive systems based on Vapor Corrosion Inhibition technology.





**May 13, 1998  
Product Release**

## **Double-acting epoxy bonds rust to metal and prevents additional corrosion**

Cortec® VCI-393 is a very low viscosity, two-component epoxy primer. When applied to a corroded surface, VCI-393 penetrates deep into corrosion and pits, bonding corrosion to the base metal underneath. VCI-393 is recommended for surfaces needing minimal surface preparation, such as those that meet NACE #4, SSPC D-SP2, and ARS High D3. VCI-393 is also an excellent sealer for concrete, masonry, and wood. VCI-393 cures to a high gloss thin film (typically 1 mil) and will not shrink. After priming with VCI-393, a water- or solvent-based topcoat paint should be used.

VCI-393 outperforms other primers because, in addition to its ability to bond corrosion to metal, it is formulated with corrosion inhibitors that are chemically attracted to metal surfaces. The inhibitors form a hydrophobic barrier on metals which is only a few molecules thick but effectively prevents further corrosion.

VCI-393 is formulated to work with most metals. Typical applications include roofs, fences, machinery, road equipment, towers, vehicle underbodies, light poles, oil drilling and pumping platforms, bridges, concrete road surfaces, and structural wood.

VCI-393 is an environmentally friendly product containing 100% solids and no VOCs or nitrites.

**Editor:** Enclosed photo shows typical application of VCI-393.

### **For further information, contact:**

Markus Bieber, Cortec's product manager for coatings, metalworking, and cleaners, at (612) 429-1100. Cortec, a pioneer in Vapor Corrosion Inhibition technology, is located in White Bear Lake, Minnesota. Cortec manufactures a variety of corrosion inhibiting and rust-preventive systems based on Vapor Corrosion Inhibition technology.





November 14, 1997

PRODUCT RELEASE

**Topical Treatment Cuts Rebar Corrosion  
In Concrete Repair Projects**

Cortec's patented MCI-2020 offers a way to dramatically reduce the corrosion of rebar in existing concrete structures. During repair work for bridges, highways, and parking decks, the application of MCI-2020 on concrete can be done quickly and inexpensively with automobile and pedestrian traffic flowing again only one-half hour to several hours after treatment.

MCI-2020 is a Migrating Corrosion Inhibitor™ that can be sprayed, rolled or brushed on the concrete surface. To be effective, the MCI® does not need initially to be in contact with the rebar. The MCI® inhibitor migrates through concrete in all directions, seeking out all exposed metal areas such as scratches and breaks in the rebar's coating to inhibit further corrosive attack and to neutralize existing corrosion currents.

MCI-2020 was studied as part of the Strategic Highway Research Program (SHRP). This patented Cortec MCI® Inhibitor was found to reduce corrosion currents as much as 75%. Cortec MCI® was proven effective in both lab and field analysis by SHRP, a unit of the U.S. National Research Council. It found that MCI-2020 was one of the most promising new technologies available for concrete rehabilitation. SHRP projects that the use of MCI-2020 to treat concrete will increase the life of the bridge 70% longer than polymer modified concrete, an increase of up to 34 years.

The performance of MCI-2020 is not dependent on the chloride levels in concrete. It will effectively deter corrosion and spalling from such sources as airborne salts and salt water in coastal areas, carbonation attack

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from carbon dioxide and sulfur dioxide, as well as the aggressive attack from deicing salts during snow and ice removal.

As needed, isolated repairs can first be made and then the entire structure or repaired area can be treated with MCI-2020. Cortec's MCI<sup>®</sup> products are environmentally friendly and acceptable for use.

**Editor:** enclosed photo shows application of Cortec MCI-2020, Migrating Corrosion Inhibitor<sup>™</sup> for concrete.

**For Further Information Contact:**

Chuck Suchy, Sales Manager of Construction Products for CORTEC<sup>®</sup> Corporation at (612) 429-1100. CORTEC<sup>®</sup> is located in White Bear Lake, Minnesota. They manufacture a variety of corrosion inhibiting and rust preventive systems based on Vapor Corrosion Inhibition Technology that the company has been instrumental in pioneering.

