

VpCI[®] Electrical & Electronic Products

for the protection of electronics,
enclosures, instrumentation,
controls, and O.E.M. applications.



CORTEC
CORPORATION

Environmentally Safe VpCI[®]/MCI[®] Technologies



ISO/IEC-17025
LABORATORY TESTING CERTIFIED



ISO 9001
QUALITY SYSTEM REGISTERED



ISO 14001
ENVIRONMENTAL SYSTEM REGISTERED

Cortec® VpCI® Electrical & Electronic Products Value-Added Features:

Cortec® VpCI® Emitting Systems

Cortec® offers a complete full-service line of products in convenient-to-use sizes. Cortec® products are an excellent quality assurance tool for everything from major manufacturers of electronics to do-it-yourself home-built kits. Corrosion can be stopped at any step from manufacturing to final installation. Integrate all your electronic/electrical protection needs from a single source supplier.

Cortec® Emitting Systems Offer—Reliability, Service Life, and Cost Reduction.

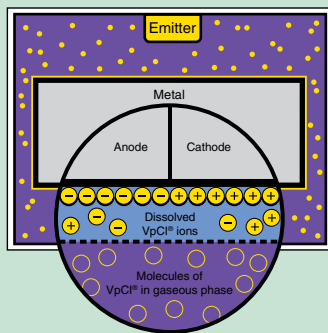
Corrosion of complex electrical and electronic equipment is an increasingly serious problem causing expensive failures. Corrosion occurs during manufacturing, shipping, storage, and field operations. It can be caused by:

- Salt, moisture, contaminants, hydrogen sulfide, sulfur dioxide, ammonia, or acid rain
- Galvanically-induced attack
- Equipment operation in non-controlled atmospheres

With Cortec® Emitting Systems, sensitive equipment is protected against corrosion, thereby extending its life and reducing the cost of expensive repairs.

How Cortec® VpCI Emitters protect your equipment.

Emitters and tapes are designed to protect products, components, or parts against corrosion when enclosed in non-ventilated housings, control boxes or other enclosures. The VpCI® Emitter releases a vapor into the interior of the package, the vapor then deposits on the metal surfaces and forms a protective molecular layer. This layer of VpCI® provides multimetal protection and helps reduce corrosion in the enclosure.



Cortec® products are environmentally friendly.

Many toxic materials such as lead, chromium, cadmium, nickel, and zinc are presently being used by electronics manufacturers to avoid the effects of corrosion. Cortec® products prevent corrosion while being non-toxic, safe to handle and apply, and free of nitrites and silicones. They allow manufacturers to develop environmentally friendly “green” products by using fewer toxic materials.

ECO-EARTH™

EcoEmitter®

- EcoEmitter® constructed from OK Biobased 3-Star Rated, resin.
- EcoEmitter® protects 8.8 cubic feet (0.25m³)
- One way 100% biobased breathable membrane.
- Non-toxic.
- Easy installation.
- No residue.
- Provides protection for up to 24 months.
- No spraying, wiping, or dipping required.



EMITTERS

VpCI®-101 Device Patented

- Patented VpCI® impregnated foam
- Continuous corrosion protection for 1 cubic foot of enclosed space
- Non-toxic
- NSN# 6850-01-338-1392
- MIL-B-81705C
- FDA and USDA approved



VpCI®-105 Emitter, & VpCI®-111 Emitter Patented

- One way Tyvek release membrane.
- Nitrite, silicone and phosphate free.
- Economical and long lasting protection.
- VpCI®-105 protects 5 cubic feet, and VpCI®-111 protects 11 cubic feet of enclosed space.



Cortec® VpCI®-150 and VpCI®-170 Tape, Patented

- VpCI® impregnated foam tapes with adhesive backing.
- Corrosion protection lasts up to two years.
- NATO# 8030-00-244-1299, MIL-B-81075C, NSN 8030-01-208-1769
- FDA and USDA approved.
- FDA and USDA approved.



CORWIPE

Corwipe® 500 Patented

- Strong Dupont Sontara® wipe
- Cleaner/Degreaser
- Anti-Stat
- Removes surface rust
- Corrosion inhibitor for multimetals
- Disposable



PACKAGING



Cortec® VpCI®-125 Patented

- VpCI® impregnated film.
- Excellent corrosion protection.
- Superior dissipative qualities.
- MIL SPEC# B-22020C II.
- MIL SPEC# B-81705C II.
- MIL SPEC# PRF-817050.
- FDA and USDA approved.



Cor-Pak® I MUL Pouches Patented

- No cleaning
- Self replenishing
- 24-month protection
- Multi-metal protection
- Dual properties-
desiccant/corrosion inhibitor

Desicorr/ Desicorr VpCI®

- Desicorr VpCI® offers dual VpCI® protection
- Both have desiccant protection
- Non Toxic
- No degreasing or cleaning or part required.
- MIL-D-3464E
Type I & Type II



Features

- Provides continuous long-term corrosion protection
- Economical to apply
- Effective in polluted and humid atmospheres
- Non-toxic and safe to handle and apply
- Free of nitrites, silicones and phosphates
- The molecular VpCI® layer does not interfere with electrical, optical or mechanical surface properties
- Multimetal protection
- Adhesive backing allows fast, no-tool installation
- Does not require removal prior to start-up
- Protects during equipment operation
- No or surface preparation required
- Multifunctional protection: VpCI, static dissipating and desiccant ability
- Compact space-saving design suitable for OEM applications
- Low V.O.C. values; exceeds Southern California Clean Air Act and other local environmental requirements

Benefits

- **Cost Reduction**
 - Reduced consumption
 - Materials
 - Labor
 - Time
- Value Added Product/Service
- Peace of Mind During Shipping/Storage
- Less Periodic Maintenance
- Reduced Surface Preparation

SPRAY



ElectriCorr® VpCI®-248

- Long-term corrosion protection
- Increased corrosion protection at a lower cost than conventional rust preventives
- Minimized field service
- Non-flammable



ElectriCorr® VpCI®-239

- Excellent outdoor corrosion protection.
- Designed for aggressive environments.
- Non-conductive
- Anti-static
- Perfect for exposed contacts and relays.
- UV Indicator



ElectriCorr® VpCI®-238

- Instant corrosion/oxidation protection
- No CFC's
- Displaces moisture
- Anti-static
- 2 year indoor protection
- NSN# 6850-01-413-9361



ElectriCorr® VpCI®-286

- Conforms to surface
- Continuous corrosion protection
- Fast drying
- No VOC's
- UV indicator
- Vibration resistant
- Extends board life

TESTING...

Cortec's Vapor Corrosion Inhibitor stands up to vigorous testing.

This accelerated test method for rust protection in a humidity cabinet is used for evaluating the rust preventative properties of metal preservatives under conditions of high humidity.

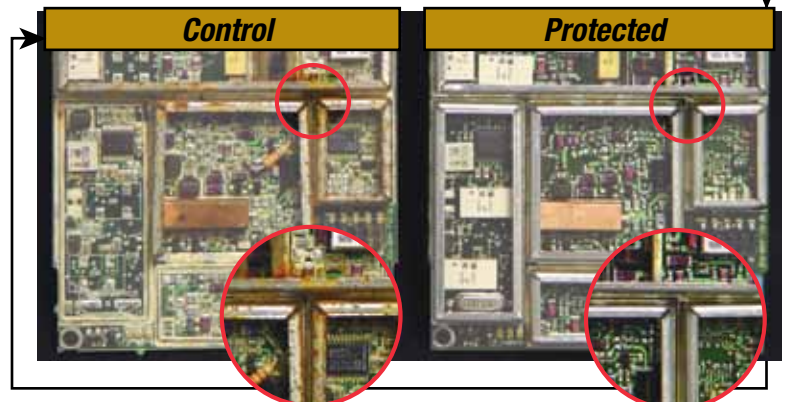
One circuit board was left untreated in an enclosure while the other was treated with Cortec's Vapor Corrosion Inhibitor protection. The criteria for passing or failing the test is the size and number of rust dots on the test surfaces.

CORROSORBER®



Corrosorber®

- Absorbs corrosive gases
- Irreversible reaction
- Non-toxic
- Superior performance against H₂S
- Changes color as it is used up
- Quick installation



	Product	Description	Protection	Packaging	Applications
Emitters	EcoEmitter® (EcoEarth™)	Biobased emitting device filled with nitrite free VpCI®, for multimetal protection. Constructed from biodegradable and renewable materials. Powered by nano VpCI®.	3.0 ft³ (.25 m³)	10/carton	Operating, packaged and stored electrical equipment, marine navigation and communication equipment, aerospace electrical controls, electric motors, switching equipment, fuse boxes, medical equipment, electrical wireways, terminal boxes, scientific and measuring instruments, telecommunications equipment, control panels for manufacturing and processing equipment.
	VpCI®-101	Vapor phase Corrosion Inhibiting device with adhesive backing 3" L x 1.25" W x 1/4" H (76 mm L x 32 mm W x 6 mm H) Conforms to NSN 6850-01-338-1392. Patented, accepted FDA, USDA Approved (Canada)	1.0 ft³ (.03 m³)	50/carton	
	VpCI®-105	Vapor phase Corrosion Inhibiting Emitter with breathable membrane 2.3" diameter x 0.75" H (58.4 mm diameter x 19 mm H) Conforms to MIL -22110C, NSN 6850-01-406-2060 accepted FDA, USDA Approved (USA)	5.0 ft³ (.14 m³)	20/carton	
	VpCI®-111	Vapor phase Corrosion Inhibiting Emitter with breathable membrane 2.3" diameter x 1.27" H (58.4 mm diameter x 32.3 mm H) Conforms to MIL -22110C, NSN 6850-01-408-9025. accepted FDA, USDA Approved (USA & Canada)	11.0 ft³ (.31 m³)	10/carton	
	VpCI®-133	Vapor phase Corrosion Inhibiting Squares with adhesive backing 1" L x 1" W x 1/4" H (2.5 cm x 2.5 cm x 0.64 cm) Conforms to MIL-PRF-26514GT 3(CLS II)(A), NSN 6850-01-426-3539	0.33 ft³ (.01 m³)	Approx. 1000/carton	
	VpCI®-150	Vapor phase Corrosion Inhibiting Foam Tape with adhesive backing 12" L x 3/4" W x 1/4" H (3.7 m x 19 mm x 6 mm) Conforms to MIL-PRF-26514GT 3(CLS II)(A), NSN 8030-01-208-1769, NATO 8030-00-244-1299. Patented, accepted FDA, USDA Approved (USA)	0.4 ft³/in. (.005 m³/cm)	6 rolls/carton	
	VpCI®-170	Vapor phase Corrosion Inhibiting Foam Tape with adhesive backing 20" L x 2" W x 1/4" H (6.1 m x 51 mm x 6 mm) Conforms to MIL-PRF-26514GT 3(CLS II)(A), NSN 8030-01-208-1769, NATO 8030-00-244-1299. Patented, accepted FDA, USDA Approved (USA)	1.0 ft³/in. (.03 m³/cm)	1 roll/carton	
Packaging	Cor-Pak® 1 MUL	Multifunctional pouch with VpCI®/desiccant action 2.5" L x 2.5" W x .125" H (6.4 cm x 6.4 cm x 0.3 cm) Conforms to MIL I-22110C, NSN 6850-01-470-2737, GSA 8030-01-208-1769	1.0 ft³ (.03 m³)	Pouch with VpCI 300/carton	Small voids, electronics, parts shipping, packaging; dustless
	Desicorr	A specially designed pouch to protect products from moisture damage. Whether in storage or in transit, products in nearly every industry require protection from moisture. Conforms to MIL-D-3464E Type I & Type II.	1/6 = 0.1 ft³ (2.8 L) 1 = 0.75 ft³ (42 L) 2 = 1.5 ft³ (42 L)	2.75" x 2.5" x 0.25" 7" x 4" x 0.25" 7" x 4" x 0.25"	Manually or automatically insert a Desicorr pouch in the package. This number may vary depending on shipping conditions and the nature of the products being protected.
	Desicorr VpCI®	A specially designed two sided pouch which contains a unique combination of desiccant and VpCI®. They are ideal for protecting packaged ferrous and non-ferrous metals from corrosion. Conforms to MIL-D-3464E, MIL I-222110C Type I & Type II.	1/6 = 1 ft³ (28 L) 1 = 5 ft³ (140 L)	2.75" x 2.5" x 0.25" 1 = 5 ft³ (140 L)	
	VpCI®-125	Static dissipative and Vapor phase Corrosion Inhibiting bags and sheeting. Conforms to MIL-B-22019C, MIL-B-22020C, MIL-B-81705C Type II, and MIL-PRF-81705D. Patented, accepted FDA, USDA Approved (USA)	Varies	Standard and custom sizes	For storage and/or packaging of sensitive electronic equipment. For wrapping or inserting with packaging material.
	VpCI®-137	Static dissipative Vapor phase Corrosion Inhibiting foam 130" L x 54" W x .25" (39.6m x 1.35m x 0.625 cm) Patented, accepted FDA, USDA Approved (USA)	Varies	Custom Available	
Corwipe	Corwipe® 500	Lint-free Dupont Santara wipe for cleaning and protecting equipment, tools and all raw and coated metals. Non-hazardous, Patented.	Varies	12 wipes per re-sealable foil pouch 12 foil pouches per carton	Test equipment, computers, PC boards, aircraft and satellite components, audio and video equipment, power terminals, any sensitive raw or painted metal parts or equipment.
Spray	ElectriCorr® VpCI-238	Multifunctional contact cleaner and multimetal corrosion inhibitor 12 oz. (340 g) cans, drums. Conforms to NSN 6850-01-413-9361	50.0 ft²/can (4.65 m²/can)	6 cans/carton 5 gal (19 l) 55 gal (208 l)	Integrated circuitry, bus bars, electrical stations
	ElectriCorr® VpCI-239	Outdoor version of VpCI-238 12 oz. (340 g) cans, drums	50.0 ft²/can (4.65 m²/can)	6 cans/carton 5 gal (19 l) 55 gal (208 l)	Integrated circuitry, bus bars, outdoor electrical connections
	ElectriCorr® VpCI-248	Non-flammable contact cleaner and multimetal corrosion inhibitor 12 oz. (340 g) cans, drums. Conforms to NSN 6850-01-413-9361.	50.0 ft²/can (4.65 m²/can)	6 cans/carton 5 gal (19 l) 55 gal (208 l)	Integrated circuitry, bus bars, electrical stations
	ElectriCorr® VpCI-286	Acrylic-based conformal coating 11 oz. (312 g) aerosol cans, drums	240-320 ft²/gal @ 1 mil (6-8 m²/l) @ 25 microns	6 cans/carton 5 gal (19 l) 55 gal (208 l)	Manufacture and field repair of printed circuit boards
Corrosorber	Corrosorber™	Capsule for absorption of corrosive gases 2.3" diameter x 1.27" H (58.4 mm diameter x 32.3 mm H)	10.0 ft³ (.28 m³)	10/carton	Corrosorbers absorb hydrogen sulfide and other corrosive gases.

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed. Cortec Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement product shall be paid by customer. Cortec Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.

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4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone (651) 429-1100, Fax (651) 429-1122
Toll Free (800) 4-CORTEC, E-mail: info@cortecvci.com
www.CortecVCI.com

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