



REMOVE RUST

# SURFACE PREPARATION PRODUCTS



CLEAN SURFACES



PRESERVE THE ENVIRONMENT



# REMOVE RUST AND CORROSION INEXPENSIVELY, EFFECTIVELY, EASILY AND SAFELY WHILE ADDING CORROSION PROTECTION.

*Cortec's rust removers, metal conditioners and paint strippers are biodegradable and non-polluting when compared to other industrial products — eliminating and/or reducing virtually all waste disposal problems.*

Corrosion is a persistent problem that must be carefully handled in a step-by-step process. Cortec's environmentally friendly products make it easy to clean metal, remove rust, condition and prepare metal for temporary or permanent coatings and packaging. Cortec Surface Preparation products also add Cortec® VpCI™ corrosion protection.

## STEP ONE

REMOVE OILS, GREASES AND SOILS

Many metals become extremely contaminated with heavy rust, scale and hydrocarbon deposits. These contaminants **MUST** be removed before further processing will be effective.



### Cortec VpCI-411 & VpCI-411 Gel Cleaner Concentrate

Cortec's VpCI-411 concentrated cleaner is biodegradable, organic and made from natural solvents. This heavy-duty, versatile cleaner can be used in a variety of household, commercial and industrial applications i.e., adhesives and greases. VpCI-411 is effective on a broad range of metal surfaces, especially those susceptible to deterioration in an alkaline environment. This product not only inhibits corrosion of freshly cleaned surfaces, it is safe to the touch and has a fresh lemon scent.

### Cortec VpCI-414 Cleaner Concentrate

Cortec's VpCI-414 is a non-toxic, biodegradable, water soluble cleaner concentrate. This heavy-duty temporary coating and wax remover is extremely effective in the removal of dirt, oils and greases or other cosmoline-like products. As a viscous liquid, VpCI-414 is ideal for under-hanging and vertical applications. After rinsing with water, VpCI-414 will provide multimetal corrosion protection for 24 to 48 hours.

### Cortec VpCI-415/416/417/418/419 Cleaner/Degreasers

Cortec's VpCI-415/416/417/418/419 products are heavy-duty cleaners/degreasers which provide the first step needed in preventing rust and corrosion. Unlike many industrial cleaners, VpCI-415/416/417/418/419 are non-toxic, non-corrosive, non-flammable cleaners that also provide multimetal protection. VpCI-415 offers unique flash corrosion protection and is formulated to meet the requirements for cleaning and corrosion protection of aircraft. VpCI-415 conforms to MIL-PRF-87937C.

VpCI-416 is a liquid, water-based, environmentally friendly and nitrite-free product. The low foaming VpCI-417 and 418 powders are excellent for power washing equipment and agitation tanks. VpCI-419 is a liquid chemical concentrate that is ideal for low foaming floor cleaning applications.



## STEP TWO

REMOVE OLD PAINT



### Cortec VpCI-432/433 Paint Strippers & Cleaners

Cortec's VpCI-432/433 Paint Strippers and Cleaners are environmentally safe for removing paint from metal, wood and concrete, as well as providing protection against corrosion, flash rusting and discoloring of stainless steel, iron, copper, aluminum and brass. The heavy-duty formulation, which removes paint in three to thirty minutes, also effectively removes graffiti from concrete. These paint strippers, developed with maximum user safety in mind, do not contain many of the chemicals — such as methylene chloride, chlorinated solvents, methanol, toluene and acetone — found in other competing products.

Cortec's VpCI 432/433 Paint Strippers are formulated to remove urethanes and difficult-to-remove epoxies. They can handle the toughest coatings, yet are very safe compared to heavy-duty paint strippers.



**Cortec VpCI-422 Liquid & VpCI-423 Gel Organic Rust Removers & Cleaners**

Cortec's VpCI-422 and VpCI-423 are non-polluting rust removal products which can be easily and safely applied to most metals. These products are based on a new chemical breakthrough that removes rust and tarnish from steel, iron, copper, brass and chrome. Unlike other products currently available, these formulations are not based on hazardous acids, and when used correctly will not harm human skin or adversely affect most paints, plastics, wood, textiles, ceramics or rubber.

**Cortec VpCI-425 Rust Remover**

Cortec's VpCI-425 powder is a biodegradable, 100% active, neutral product that removes light rust, scale from stainless steel, and other contamination from ferrous and non-ferrous metals such as aluminum, copper and brass. VpCI-425 is completely organic, non-flammable and has a mild aroma, making it ideal for in-plant use.

**Cortec VpCI-426 & VpCI-426 Gel Liquid Cleaner and Rust Remover**

Cortec's VpCI-426 is a revolutionary product that brightens magnesium and aluminum, leaving a shiny surface that provides long-term corrosion protection. This water-based liquid is also excellent at removing rust from carbon steel and cast iron, and removes calcium carbonate and sulfate.

**Cortec 427 Liquid & VpCI-428 Gel Aluminum Oxide Removers & Cleaners**

Cortec's VpCI-427, a concentrated aluminum cleaner, dissolves oxides from surfaces and subsequently inhibits aluminum corrosion. The dilution ratio of VpCI-427 varies, depending on the extent of the aluminum corrosion. VpCI-428 is a thixotropic version of VpCI-427.

**VpCI™ CorrVerter™**

VpCI™ CorrVerter™ is a water-based primer recommended for application to rusty or poorly prepared steel surfaces where further corrosion protection is required. VpCI™ CorrVerter™ is formulated to penetrate rust, eliminate rust, get down to the bare metal, and stop further rusting.

**Corwipe® 300 Multipurpose Wipe**

Multipurpose wipe cleans while applying a corrosion inhibiting layer to multimetals. Removes grease, oil and light rust. A must for any tool kit.



IMMEDIATELY PROTECT THE FRESHLY CLEANED SURFACE WITH CORROSION INHIBITING CORTEC® PRODUCTS

**TOTAL CORROSION CONTROL™**

Cortec® Corporation is dedicated to controlling corrosion at ALL STAGES of a product life cycle. Cortec® has developed a diverse range of corrosion protection products including cleaners, metalworking fluids, waterborne, high performance coatings, corrosion inhibitors, rust removers, paint strippers, powders, packaging foams, papers, films, surface treatments and concrete admixtures. Contact Cortec® for additional brochures and information.



PRODUCT	DESCRIPTION	APPLICATIONS
VpCI-411 (liquid) VpCI-411 (gel)	D-limonene based universal cleaner. Removes dirt, oil, grease, and more. Non-hazardous and biodegradable. Safe on all metals.	<i>Application Temp:</i> Room temperature to 100° F (38° C). <i>Dilution Ranges are with water:</i> Full strength to 15 %. Replaces environmentally unacceptable solvent cleaners. Use VpCI-411 gel for hard-to-reach or vertical surfaces. 5 gal. (19 liters) pails, 55 gal. (208 liters) drums, 275 gal. (1041 liters) totes.
VpCI-414	Viscous liquid that removes temporary coatings on steel, aluminum and painted surfaces; biodegradable; clings to ceilings and vertical surfaces.	<i>Application Temp:</i> Room temperature to 120° F (49° C). <i>Dilution Ranges are with water:</i> 30% to remove coatings including VpCI-368, VpCI-388, VpCI-389; 20% for tumblers, dip tanks, ultrasonic tanks and screw machines; 5% for machine tools, benches, floors, saw blades machinery, autos, trucks, snowmobiles, grills, railroad equipment, service bays, pit areas and construction equipment. 5 gal. (19 liters) pails, 55 gal. (208 liters) drums, 275 gal. (1041 liters) totes and EcoAir™ aerosol cans.
VpCI-415	Heavy-duty biodegradable water-based alkaline cleaner and degreaser offering unique flash corrosion protection. Conforms to MIL-PRF-87937C and meets the requirements for cleaning and corrosion protection of aircraft.	<i>Application Temp:</i> 50°-300° F (10°-149° C). <i>Dilution Ranges are with water:</i> 1 part VpCI-415 to 4 parts water for heavy-duty cleaning and corrosion protection; 1 part VpCI-415 to 10 parts water for normal cleaning (i.e. parts washing); 1 part VpCI-415 to 20 parts water for light cleaning (i.e. rinsing). <i>Application:</i> Apply with any conventional equipment including: sprayers, dipping tanks, steam cleaners and power washers.
VpCI-416 VpCI-419	Non-toxic, heavy duty, water-based liquid cleaner and degreaser providing temporary corrosion protection for brass, copper, steel and aluminum.	<i>Application Temp:</i> Room temperatures to 170° F (77° C). <i>Dilution Ranges are with water:</i> 20% for removal of heavy grease and oil before tank cleaning; 10% for removal of oil, grease, dirt or metalworking fluids from tumblers, dip tanks, ultrasonic tanks, and screw machines; 5% for cleaning of machine tools, benches, floors, saw blade machinery, railroad equipment, service bays, pit areas and construction equipment. 5 gal. (19 liters) pails, 55 gal. (208 liters) drums, 275 gal. (1041 liters) totes and 16 oz. (.47 liter) EcoSpray® bottles (416).
VpCI-417 VpCI-418	Non-toxic, heavy duty, water-based powder cleaner and degreaser providing temporary corrosion protection for brass, copper, steel, aluminum and cast iron.	Designed for use in high agitation, high pressure parts washers. <i>Application Temp:</i> Room temperature to 170° F (77° C). <i>Dilution Ranges are with water:</i> 1-2% cleans multimetal parts of oil, dirt and grime; 3-5% cleaning and flash corrosion protection of cast iron; 7% for cleaning and flash corrosion of magnesium. 5 pound (2.27 kg) box, 50 pound (22.7 kg) drums, 100 pound (45.4 kg) drums.
VpCI-422 (liquid) VpCI-423 (gel)	Biodegradable rust remover and cleaner for multimetals including steel, copper chrome metals and alloys.	<i>Application Temp:</i> Room temperature to 130° F (54° C). <i>Dilution Ranges are with water:</i> Full strength to 25%. Removes corrosion and contamination from all engineering metals. Use the liquid in dip tanks to remove corrosion and the gel for hard-to-reach or vertical surfaces. Rinse with VpCI-416 cleaner and water at approximately 5% by weight. 5 gal. (19 liters) pails, 55 gal. (208 liters) drums, 16 oz. (.47 liter) EcoClean® bottles, 14 oz. (.41 liter) EcoAir™ bottles (423). 275 gal. (1041 liters) totes aerosol.
VpCI-425	Neutral, biodegradable rust and scale powder remover for metals including aluminum, copper and brass.	<i>Application Temp:</i> Room temperature to 150° F (66° C). <i>Dilution Ranges are with water:</i> 4-10 ounces per gallon of water (30 - 70 grams/liter). Removes light rust, oxidation and scale. 5 pound (2.27 kg) box - powder, 50 pound (22.7 kg) box - powder, 100 pound (45.4 kg) box - powder.
VpCI-426 (liquid) VpCI-426 (gel)	Scale and rust remover for ferrous and non-ferrous metals, including carbon steel and cast iron; also brightens aluminum and magnesium.	<i>Application Temp:</i> Room temperature to 170° F (77° C). Use the liquid in dip tanks to remove corrosion and the gel for hard-to-reach or vertical surfaces. 5 gal. (19 liters) pails, 55 gal. (208 liters) drums, 275 gal. (1041 liters) totes.
VpCI-427 (liquid) VpCI-428 (gel)	Heavy-duty aluminum cleaner and surface conditioner.	<i>Application Temp:</i> Room temperature to 120° F (49° C). <i>Dilution Ranges are with water:</i> 15-50%, depending on extent of corrosion. Use the liquid in dip tanks to remove corrosion and the gel for hard-to-reach or vertical surfaces. 5 gal. (19 liters) pails, 55 gal. (208 liters) drums, 275 gal. (1041 liters) totes.
VpCI-432 (liquid) VpCI-433 (gel)	Methylene chloride-free paint stripper that prevents corrosion, flash rusting and discoloration. Effective on paints, lacquers, enamels, waxes, alkyds, latex acrylics, urethanes and epoxies.	<i>Application Temp:</i> Room temperature up to 150° F (66° C) for hot stripping. <i>Dilution Ranges are with water:</i> Use full strength for cold or hot paint stripping or ultrasonic baths. Use the liquid in dip tanks to remove corrosion and the gel for hard-to-reach or vertical surfaces. 5 gal. (19 liters) pails, 55 gal. (208 liters) drums, 275 gal. (1041 liters) totes, EcoClean® bottles (433).
Corwipe® 300	Multipurpose wipe to clean and protect ferrous metals.	100 wipes/carton, 72 wipes/canister.
VpCI™ CorrVerter™	Non-toxic, water-based primer recommended for application to rusty or poorly prepared steel surfaces.	<i>Dilution Ranges are with water:</i> Full strength to 10%. <i>Applications:</i> For industrial maintenance, light-duty maintenance, general metal coatings, and marine and industrial coatings. Brush, roll or spray at 3-5 mils (75-125 microns) wet film thickness. Brush application is preferred to ensure penetration into the rust. For badly corroded surfaces a second coat should be applied within 20-30 minutes to ensure maximum protection. 5 gallon (19 liter) pails, 55 gallon (208 liter) drums.

See Cortec® EcoSpray®/EcoClean® and EcoAir™ product information for similar products.

## 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.

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