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PRESS RELEASE



Clean & Protect: One-Step Solution for Metal Prep with VpCI® Corrosion Protection!

Corrosion is a costly issue that demands a strategic solution. Many metals fall victim to a buildup of heavy rust, scale, and oil deposits. Removing these contaminants is crucial before any further protection can take place. This is where surface preparation comes in as the first critical step in the fight against corrosion. Why is it so important? Poor surface preparation is a major cause behind corrosion problems. By thoroughly cleaning the metal's surface, you create a strong foundation for successful protective coatings. This is because anticorrosion coatings are directly affected by the surfaces to which they are applied. If the surface has not been properly prepared, the coating will not stick properly and this will result in lower effectiveness and shorter longevity of the corrosion protection coating.



Surface preparation is most often used for steel, aluminum, and concrete materials. Cortec's corrosion mitigation solutions remove rust and prepare surfaces for temporary or permanent coatings and packaging. These innovative surface prep products go beyond cleaning by adding a layer of Cortec's VpCI®

technology for protection against flash corrosion.

Clean, Protect, Preserve: The Power of VpCI®-414

Cortec® best-selling cleaner/degreaser, VpCI®-414, tackles dirt, grime, and even stubborn temporary coatings in one powerful step. This water-soluble formula is safe for various metals and painted surfaces, making it a versatile cleaning solution.



VpCI®-414 helps remove dirt, oils, greases, and cosmoline-like products.

Here's what makes VpCI®-414 stand out:

- Heavy-duty cleaning: removes oil, grease, and cosmoline-like products.
- Provides up to 48 hours of multi-metal corrosion protection after parts have been cleaned.
- Versatile application: ideal for horizontal and vertical surfaces (even clings to overhead areas).
- Safe and cost-effective: the formula is made with biodegradable materials and can be diluted for different levels of cleaning intensity.

VpCI®-414 is available in concentrated or ready-to-use form. It is a perfect choice for those seeking an efficient and environmentally responsible way to clean and protect their metals.

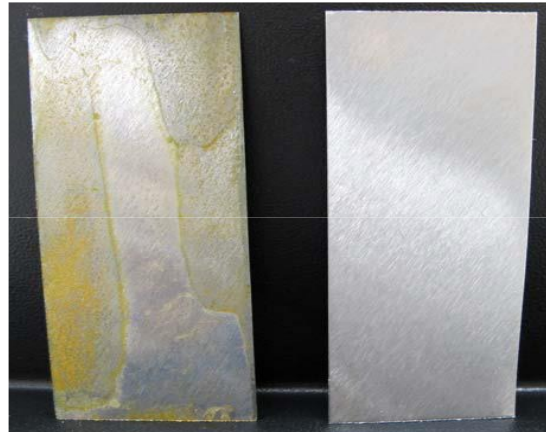
**Cast Aluminum Panels
after 42 Hours**



Control

With 10% VpCI®-414

**Carbon Steel Panels
after 42 Hours**



Control

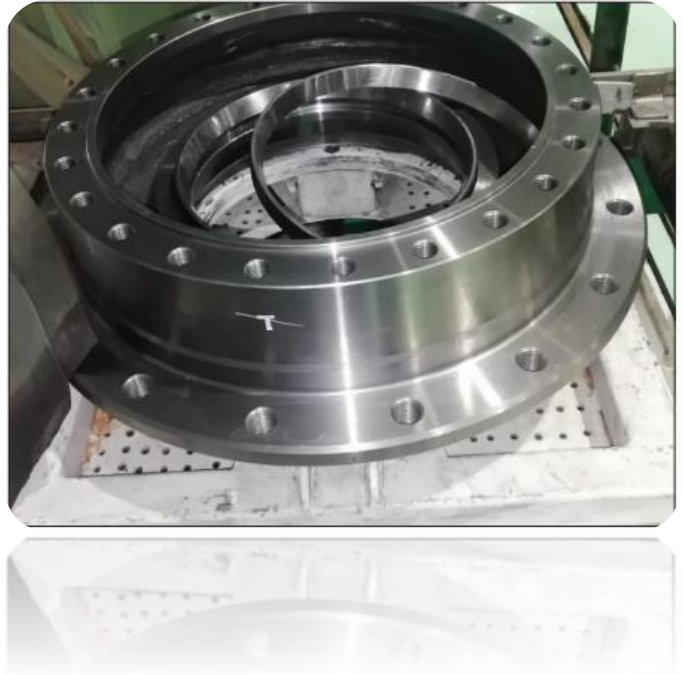
With 10% VpCI®-414

According to the flash corrosion test, VpCI®-414 at 5% and 10% concentration was found to be very effective for preventing corrosion on carbon steel panels and significantly improved corrosion protection on cast aluminum. The immersion test showed that VpCI®-414 provides corrosion protection on both carbon steel and cast aluminum panels at 10% concentration.

Nonflammable VpCI®-414® does not affect painted surfaces and remains active even if left to dry. It is mostly used at room temperature, thus reducing energy consumption, but it can also be used in a heated bath for heavy hydrocarbons. The viscous liquid will cling to ceilings and vertical surfaces in a ready-to-use formulation. The product is highly effective at low concentrations and can be diluted as low as 1% by volume. It is easily applied using basic PPE (personal protective equipment). Metals protected are carbon, stainless, and galvanized steel; cast iron; copper; and brass. VpCI®-414 has been used in cleaning and corrosion prevention applications by global organizations such as General Motors and the United States Air Force, who used VpCI®-414 as part of Cortec's "Clean, Protect, Preserve" program and achieved a high performance, cost-effective, and easy method of cleaning surfaces.

Lower Cost, Improved Cleaning Solution for Parts Washing Machine

A plant located in India manufactured a wide range of excavators. Before assembling the gearboxes, they were cleaning parts in the washing machine using an alkaline industrial cleaner at 5-6% concentration, maintaining the temperature at 65-70 °C (149-158 °F). Sump life of this cleaner was 30-45 days. After washing the parts, oil remained on the surface. This was unacceptable to the customer. They were searching for an economical product with good cleaning ability and short-term rust protection. Since they did not want to make changes in the existing process, they introduced Cortec® VpCI®-414 to the washing machine at 0.5% and



VpCI®-414 cleaner degreaser is also available in EcoAir® spray cans that replace traditional propellants with compressed air.

maintained the temperature at 65-70 °C (149-158 °F). The problem was solved at a lower cost without making any changes in the existing process. VpCI®-414 was user-friendly, and the cleaning quality was better than their previous cleaner even at very low dosages. The customer eliminated the cleaning issues on the surface due to the excellent properties of VpCI®-414 and began ordering it regularly.

Keywords: corrosion protection, VCI, rust removal, rust cleaner, surface preparation, Cortec corporation, metal prep, degreaser

Cortec® Corporation is the global leader in innovative, environmentally responsible VpCI® and MCI® corrosion control technologies for Packaging, Metalworking, Construction, Electronics, Water Treatment, Oil & Gas, and other industries. Our relentless dedication to sustainability, quality, service, and support is unmatched in the industry. Headquartered in St. Paul, Minnesota, Cortec® manufactures over 400 products distributed worldwide. ISO 9001, ISO 14001:2004, & ISO 17025 Certified.