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PRODUCT RELEASE



Breakthrough in Temporary Rust Preventive Technology: EcoCorr™ Water-Based RP Offers Excellent Performance and 40 Percent Savings Against Bestselling Petroleum-Derived RP!

Cortec® Corporation has developed a breakthrough water-based rust preventative (RP) that reduces applied cost by 40% compared to a bestselling oil-based RP! Cortec's innovation offers excellent corrosion protection while reducing carbon footprint and cutting common labor or disposal costs associated with traditional RPs.

Complete Replacement for Oil-Based RPs

EcoCorr™ Water-Based Rust Preventative

powered by Nano VpCI® is a complete replacement for oil-based rust preventatives (RPs) used for temporary indoor protection of equipment and components. It is convenient to use and easy to clean.



When applied to the metal surface by dipping, brushing, or spraying, EcoCorr™ forms a clear dry film that is suitable for robotic assembly of precision machined components. In most cases, the dry film of EcoCorr™ does not interfere with use and does not need to be removed, but this can be easily done when required. EcoCorr™ Water-Based RP is useful for temporary storage of countless metal parts:

- Castings, tubular parts, finished parts, gears
- Pumps and housings
- Structural steel, sintered metals
- Bars and roll stock
- Precision machined components



Improved Convenience, Safety, and Cost

Freshly exposed metal surfaces are especially vulnerable to flash rust and corrosion between manufacturing process steps. In order to avoid losses from corrosion, it is very important to apply a rust preventative to protect metal parts awaiting the next step of machining, assembly, or shipment. This is typically done with an oil- or solvent-based RP, which can be messy, hazardous to use, and inconvenient to remove.



EcoCorr™ Water-Based RP improves plant cleanliness and worker safety by eliminating greasy spills; flammable RPs; and hazardous elements such as nitrite, phosphate, and hazardous amines. Special ventilation is not required for application, and labor and disposal costs associated with hazardous oil-residue removal are eliminated. All this can be done at a significant savings of 40 percent lower total applied cost—not to mention time saved between process steps.

Excellent Performance and Usability

Though oil- and solvent-based RPs are commonly relied on for their rust preventive qualities, EcoCorr™ Water-Based RP offers outstanding performance in an environmentally friendly, easy to use alternative. Under ASTM D-1748 testing, during which coated metal panels are exposed to approximately 100%

relative humidity in high temperatures of 120°F (49°C), EcoCorr™ Water-Based RP provided more than 800 hours of protection.

EcoCorr™ Water-Based RP has excellent wetting qualities but dries into a clear film that is stable up to 284°F (140°C). This film can be left on during component assembly, can be coated over with conventional paint systems, and in most cases, can be welded. All these features serve the important role of preventing flash corrosion and extending shelf-life of finished goods in an inconspicuous manner. Protection is good for up to two years of sheltered/indoor storage of multi-metals:

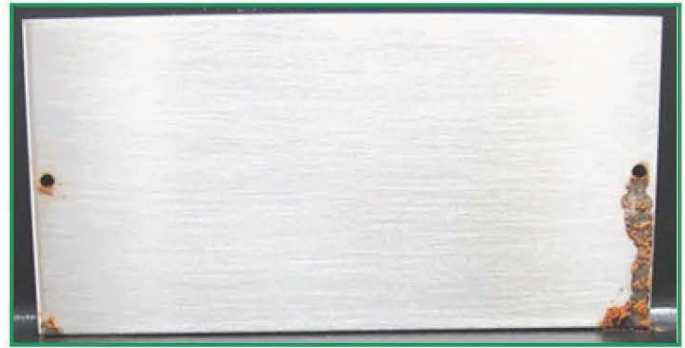
- Carbon steel
- Cast iron
- Stainless steel
- Galvanized steel
- Aluminum
- Copper

TEST IMAGES

Standard Humidity Cabinet Testing Protocol



Control panel after 860 hrs in ASTM humidity test



EcoCorr® protected panel after 860 hrs in humidity test

Once again, Cortec® has developed an outstanding economical, environmentally friendly option for use in industries that manufacture, assemble, ship, or store metal parts. EcoCorr™ Water-Based RP is easier and safer to use than traditional RPs and offers excellent performance with significant cost savings. All these advantages show that EcoCorr™ Water-Based Rust Preventative powered by Nano VpCI® is not only a complete replacement for oil-based RPs—it is the sensible, economical choice for protecting metal parts against flash rust or corrosion during manufacturing, storage, and shipping.

EcoCorr™ Water-Based Rust Preventative passes ASTM D-4627 Cast Iron Chip Test, ASTM G-31 Immersion Corrosion Testing, and ASTM D 3359 Measuring Adhesion by Tape Test. It is compliant with NACE RP0487-2000 Selection of Rust Preventives.

To find out more about Cortec's EcoCorr™ Water Based Rust Preventative powered by Nano VpCI®, please visit:

[http://cortecvci.com/Publications/PDS/EcoCorr Water Based Rust Preventative Powered by NanoVpCI.pdf](http://cortecvci.com/Publications/PDS/EcoCorr_Water_Based_Rust_Preventative_Powered_by_NanoVpCI.pdf)



VpCI® METALWORKING PRODUCTS

EcoCorr™ Water-Based Rust Preventative powered by Nano VpCI®

- Eliminates costs associated with oil-residue removal and disposal
- Excellent wetting properties
- Dry film stable up to 284°F (140°C)
- Can be coated over with conventional paint systems*
- Can be welded in most cases
- Non-flammable, economical to transport and warehouse
- Shows >800 hours protection in ASTM D-1748 testing

*Cortec Cortec® for lapcoating applications.

TYPICAL APPLICATIONS

Thin film coating for indoor storage of

- Castings, tubular parts, finished parts, gears
- Pumps and housings
- Structural steel, sintered metals
- Bars and roll stock

PRODUCT DESCRIPTION

EcoCorr™ Water-Based Rust Preventative is a complete replacement for oil-based preventatives for indoor protection of equipment and components. EcoCorr™ Water-Based Rust Preventative is non-hazardous and ready-to-use.

EcoCorr™ Water-Based Rust Preventative is applied to metal surfaces by dipping or spraying. It does not typically need to be removed, but if necessary, can be removed with conventional alkaline cleaners, such as Cortec's VpCI®-410 Series.

FEATURES

- **ECONOMICAL: APPLIED COST PER SQUARE FOOT (SQUARE METER) IS TYPICALLY 40 PERCENT LESS THAN THE BEST SELLING OIL-BASED RUST PREVENTATIVE**
- Much improved carbon footprint as compared to oil- and solvent-based rust preventative
- Protects ferrous metals and non-ferrous metals
- Prevents flash corrosion on parts in between processes
- Extends shelf-life of finished equipment and parts
- Non-hazardous, free of nitrite, phosphate, and hazardous amines
- Water-based, convenient to use and easy to clean
- Improves plant cleanliness and worker safety; doesn't require special ventilation
- Forms a clear, dry film; suitable for robotic assembly of precision machined components
- No need to remove in most cases; easily removable if necessary

METALS PROTECTED

- Carbon steel
- Cast iron
- Stainless steel
- Galvanized steel
- Aluminum
- Copper

APPLICATION

Product Preparation:

Apply via dip, brush, or spray with a variety of equipment (conventional, pump spray, etc.)

CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

For more information about Cortec's innovative Metalworking products, please visit:

<http://www.cortecmetalworking.com/>

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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. Cortec Website: <http://www.cortecvci.com> Phone: 1-800-426-7832 FAX: (651) 429-1122