

**CORTEC® CORPORATION  
SHORT/LONG-TERM VEHICLE  
STORAGE PROCEDURES**



## What is the CORTEC® Method of Storage?

- Thorough cleaning of vehicle/equipment
- Introduction of corrosion protection additives, (VpCI's) Vapor phase Corrosion Inhibitor in all systems (Hydraulic, Fuel, Grease, Oil, Coolant, and Air Reservoirs)
- Application of VpCI's in the electrical systems and installation of VpCI™ Emitters in electrical boxes
- Application of VpCI's sprayed On complete exterior
- Asset is surrounded with VpCI's using a shrink wrap bag or MilCorr®
- Bags are saturated with VpCI's during the manufacturing process



## Pre-storage Preparation: Cleaning

- Wash vehicle body and undercarriage thoroughly using VpCI™-415 (refer to applicable T.O. for dilution instructions)
- Ensure to clean cabs, tool compartments, equipment storage areas, and other places as required
- VpCI™-415 may be used with sprayer, steam cleaner, pressure washer, brush, sponge, or cloth
- Drain thoroughly and dry
- Ensure all drain holes are open
- Corwipes™ are a handy wipe type of product that can be used to remove light rust and grease
- For heavy rust removal: use VpCI<sup>5</sup>-423 Water Base Rust Remover



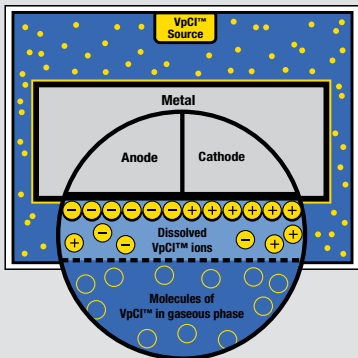
## Pre-storage Preparation: Cleaning

- For vehicles/equipment that cannot be completely cleaned and rust free:
- Spray wheel wells and undercarriage with VpCI™-368 at a thickness of 3-5 MILS
- CorVerter™ may be used in cases where elimination of rust is desired.
- this product can serve as a primer for most paints when cured



## CORTEC® Fluid Additives

- M-640L = 5% of coolant reservoir capacity
- VpCI™-323 = 20% of oil reservoir capacity
- VpCI™-322 = 20% of hydraulic type fluid capacity (NONOIL)
- VpCI™-705 = 2% of fuel reservoir capacity or one pint for every 10 gallons of fuel
- During maintenance, fill with appropriate percentage of VpCI™ fluid needed
- Fill reservoir to appropriate level with required fluid less VpCI™
- More is not always better! Top off with regular fluid to required fluid level!



## CorrLube Grease

- Apply grease to all applicable zirc fittings & areas requiring grease
- Excess grease removal is not necessary



## **CORTEC® Exterior Spray Applications**

- Apply two coats at a 2 - 3 wet mil thickness
- In desert applications, on clean assets, spray VpCI™-386 clear gloss or matte permanent coating on entire vehicles except on glass, mirrors, & rubber
- Apply CorrShield VpCI™-369 Spray to moving components such as; hydraulic cylinders, hinges, rollers, chains, wire rope, etc.



## Application of Emitting Devices VpCI<sup>™</sup>s 101 & 105

- VpCI<sup>™</sup>-101's used in one cubic foot boxes
- VpCI<sup>™</sup>-105's used in five cubic foot boxes
- Both can be used in multiple locations
- Place at least two 105's under dash board





## ElectiCorr VpCl™-238 Spray

- Spray all electrical components/connectors, panel boxes, motors, wiring, battery boxes/posts, lights, and under dash board
- For enclosed panel boxes, fogging is all that is necessary
- Add emitters to boxes prior to fogging



## VpCI™-132 Foam Pads

- Place in large void spaces
- Place at least one per 20 cubic feet
- Inside cab, inside truck beds, under vehicle/equipment body



## Padding

- Cut padding for all sharp edges
- Flame retardant padding is preferred
- Rope void spaces to create tent; aids in preventing water accumulation
- Use of battery upkeep systems such as solargizers work extremely well on all WRM vehicles



## Position Vehicle/Equipment On VpCI™

- Plastic/MilCorr™ Material
- Carefully roll/place equipment/asset on material
- Lay planking for wheels for heavy equipment



## Jack Stand/Block Placement

- Relieve weight from the tires by putting the vehicle/equipment up on jack stands/blocks
- Consult the vehicle manual for approved jacking points and placement of jack stands/blocks
- Jack stands/blocks should sit on padding to protect corners



## Application of the Shrink Wrap



## Excess Material Usage

- Make certain to leave roughly 2-3 feet of excess material on all sides of vehicle/equipment
- Excess is used for seaming
- Sides are now ready for seaming
- Initially, go completely around vehicle/equipment, seam only half of overlap
- Finally, heat remainder of excess leaving a 12-18" seam



**Sealing the Bag**



## Shrinking Material

- Apply heat to entire surface of material; shrinking it up tight to the vehicle
- Ensure to shrink material snug enough not to allow any flapping during high winds
- Apply heat to the bottom to draw material up off the floor; this aids in creating an air tunnel under the vehicle
- Shrink in “Patches”, moving from area to area, ensuring not to leave heat on one spot too long



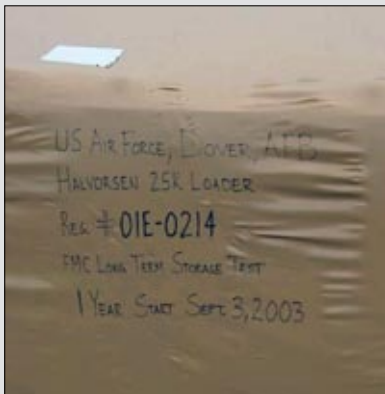
## Small Hole/Tear Repairs

- Tape/silicone sealer is applied to seal any small holes/tears
- During/after the wrap process, small slices are made to install the solargizer panel and transformer
- Ensure to place transformer on top of material for optimum charging



## Vehicle/Equipment Identification

- Fasten a permanent means to identify asset:
- Registration number
- Date bagged
- Model of asset
- Using Organization





## Current CORTEC® Customers

- US Air Force
- US Coast Guard
- US Marine Corp
- US Navy
- US Air Force
- Indian Navy
- Israeli Air Force
- Croatian Military
- Smith & Wesson
- McDonnell Douglas
- NASA
- Dynacorp
- Flyer Industries
- Alliant Tech Systems
- Raytheon
- Delco Defense
- Lockheed Martin
- Boeing
- GE Turbines
- And Many More!!

## Storage Benefits

- Reduced maintenance costs
- Labor/Parts associated with exercising quarterly
- Reduced operational costs
- No exercising (labor and fuel)
- Environmental impact
- Enhanced mission readiness
- Reduced breakout time (average of 5 hours to 21 minutes)
- Overall cost reduction, 40-60%
- Minimization of hazardous waste stream



## **CORTEC® Process**

- Corrosion protection and packaging
- CORTEC® is used extensively in civilian industry for long/short-term storage and shipment of equipment
- CORTEC® has the most diverse offering of contact and Vapor phase Corrosion Inhibitors (VpCI™)
- VpCI's circulate in the enclosed atmosphere of CORTEC® bagged equipment and interior void spaces
- VpCI's bond to the metal surface UNDER moisture, and will significantly reduce corrosion rates
- VpCI's protect metal products from corrosion to include galvanic, rust, tarnish, stains, white rust, and oxidation
- VpCI's are in all CORTEC® storage preservation products/materials
- Strong potential to revolutionize vehicle/equipment storage/preservation AF-Wide





## WHAT WE ALL KNOW!

- **CORTEC® is the leading edge in corrosion prevention/protection**
- **Corrosion produces a less than desirable asset**
- **Extend the life of your fleet and increase mission reliability/readiness**
- **Applicable on many AF assets**
- **Strong potential to revolutionize vehicle/equipment storage/preservation AF-Wide**

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**CORTEC**  
CORPORATION

*Environmentally Safe VpCI™/MCI® Technologies*

Created: 05-07

Cortec®, VpCI™, VpCI™ Film Color of Blue®, VpCI-126®, VpCI-609®, VpCI-137®, VmCI-307®, Migrating Corrosion Inhibitors™, MCI®, MCI Grenade®, EcoWorks®, EcoAir®, Eco-Corr®, EcoLine®, EcoClean®, EcoShield®, EcoWeaver®, EcoSpray®, EcoCoat®, Eco-Emitter®, EcoSol™, Eco-Tie™, Eco-Care™, Eco-Shrink™, EcoWrap™, EcoFilm™, Cor-Mitt®, Cor-Pak®, CorShield®, Corrosorbors®, CorWipe®, CorrVertor®, Corr-Seal®, CorrLam™, Corr-Fill™, Corrlube™, ElectriCorr®, MilCorr®, GalvaCorr®, Sugar Corr®, HPRS®, Boiler Lizard®, Cooling Tower Frog®, Closed Loop Toad®, Cooling Loop Gator®, Pine Tree Logo®, GRI®, Metacorr®, and Rust Hunter™ are trademarks of Cortec® Corporation. ©Cortec Corporation 2007. All rights reserved.