

# Automobiles

## Controlling existing rust and corrosion

CarWell Rust COP, T-32, CP-90 (all the same product) is a petroleum hydro-carbon that is chemically remediated of all HAZMAT. The inhibitors in CarWell are a trade secret inhibitor, but, tests performed by the U.S. Army Tank and Automotive Command found a 90 – 92% ability to slow the corrosion rate, and U.S. Naval Surface Warfare Center tests have found a 95% ability to slow corrosion rates.

Both provide a very high degrees of corrosion rate reduction, and because of this performance, CarWell is the only product at this time accepted for use by the U.S. Army and the U.S. Marine Corp world wide for use on ground force tactical equipment. Here in Hawaii since April 01 over 14,000 applications at Schofield Barracks, and well over 2,000 applications at Marine Base Hawaii, Kaneohe are being performed.

Civilian sector use is not limited to just fleets, but applications are being performed on aircraft, cooling tower chassis and components, air conditioning systems, metal structures, shipping containers, wrought iron fences, garage door mechanisms, weapons, duct works, steel doors and frames, process plant equipment, such as concrete block manufacture and anywhere in general where corrosion issues force delay, down time and steel waste that ends up needing replacement and with ultimate cost and time factors involved.

Application of CarWell is a simple process. Be sure desired metal treatment area is free of dirt and mud buildup. This can be removed by high pressure washing or garden hose flushing with fresh water. Removing rust scale, peeling paints and other corrosion by products such as white rust on galvanized or aluminum surfaces is not required.

Apply by roller, brush or spray and allow residual product to soak into the metals. If heavy scale is present, a second treatment might be desired after about a week of saturation. This enables more CarWell to be saturated into the good metal substrate below the scale, and that is where the protection is needed the most. If a second treatment within a week is not possible where heavy rust and scale is present, follow up treatment should be performed at no longer than 8 months after the first treatment.

Typically, Hawaii climate shows that second over-all treatment at 8 months should occur, and there after 9 month, 10 month and finally 12 month treatments from each treatment date will afford saturation to the metal molecular structure, allowing build up at this level, and a constant supply of inhibitor to slow the rate of corrosion.

CarWell treatments are not a one time treatment, but planned interval treatments for best performance, as CarWell life-cycle is about 12 months. To insure best protection, it is recommend to follow the treatment cycle as stated.

Understand that metal if viewed at the molecular level, is similar to the construction of a sponge. The surface is flat, but below the surface, metal is porous. Within the porosity of metal, moisture accumulation occurs by condensation. Condensation occurs due to the rise and drop of temperature of the atmosphere, which causes metal to sweat. Once moisture is present, the 4 ingredients to cause corrosion are now present. The ingredients of metal, oxygen, water and the charged corrosion cell. The charged corrosion cell is within the metal, where the anode and cathode are present. The anode and cathode are the different raw metals that are combined under heat to produce the final product of steel, or the + (positive) and the - (negative) pole within that final product known as steel.

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### Solutions for Rust and Corrosion

## Controlling existing rust and corrosion-continued

With the presence of water or the electrolyte, electrolysis occurs. Electrolysis is the flow of electricity, from one pole to the other. In this case, the different metals offer resistance which creates the battery or charged corrosion cell, moisture becomes the solution or path of which the flow of electrons occurs, and the spent energy leaves behind rust and corrosion deposits.

Metals produced with hotter temperatures tends to rust and corrode faster than metals produced under cooler temperatures. Denser metals tend to slow the corrosion rate, such as 18-8 stainless steel. Regardless of which metals or combination of metals are used, CarWell works well to slow the corrosion rate.

When metals are treated with CarWell, the inhibitor insulates the metal molecules from each other and from moisture, and the result is the slowing of the rate of corrosion. Some corrosion still does occur, but that rate is a very slow rate, which means to an equipment owner that the designed life cycle can be met without the frustrations of loss due to corrosion.

CarWell treated surfaces can be top coated with petroleum and water based coatings with ease. Simply allow the CarWell to be absorbed to the metal substrate (about 24 hours) and degrees with an environmentally accepted degreasing agent. Do not use Simple Green, as Simple Green will cause more corrosion problems over time.

If an appropriate cleaner degreaser cannot be found, we recommend BULLFROG Cleaner Degreaser with vapor corrosion inhibitors, or CORTEC 400 series cleaners which are available in powder or liquid concentrate. See Products page for details. Allow degreased surfaces to dry, and apply desired coatings.

DuPont Labs has performed tests which reported no issue with adherence with surfaces treated with CarWell CP-90 and properly degreased.

From external radiators, battery boxes, chassis, interior door, fold, weld seam areas, to locks, CarWell is the right choice for the job of fighting corrosion. Other areas of application—seams, welds, folds and crevices, riveted pieces, chains, door & lock mechanisms, gas tanks & straps, brake cables, wheel hub nuts, oil pan, transmission nuts & bolts, mirror mounts, spot welds (over 2000 on average vehicle) seized parts, nuts and bolts, rollers, castors, hinges, brackets, release cables, window regulators & wiper mechanism, coil and leaf springs, U bolts, Electrical wiring, lights, electrical connectors, battery posts & cables, any area where dissimilar metals are fastened (Aluminum & Steel), radiator brackets, shrouds & casing, Headlight adjusters and more....

Note:

Go to Products Link on our site for details on CarWell Rust Cop/CP90. Go to Buy Now Link on our site for CarWell Rust Cop/CP90 retail locations. Go to Contact Link on our site for industrial sales and further questions.





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