

## NuKoat CCC

### About the Product:

NuKoat CCC is a specialized mixture containing all of the necessary ingredients to treat Magnesium Alloys with a Chromate Conversion Coating that conforms to SAE AMS-M-3171, Type VI (formerly MIL-C-3171, Type VI) and the specified requirements outlines in NAVAIR 01-1A-509. NuKoat CCC is specialized for the touch-up and corrosion repair processes of Magnesium Alloys.

**IMPORTANT SAFETY INFORMATION!** Refer to the NuKoat CCC Safety Data Sheet (SDS) before using this product. It is important to thoroughly understand all of the associated hazards and necessary precautions for using NuKoat CCC safely.

### NuKoat CCC Kit:

The NuKoat CCC Kit is a ready to use kit that allows for the quick and effective pre-paint surface treatment on Magnesium Alloys. The NuKoat CCC kit includes the following, necessary equipment and chemicals:

1. 1 – 8 oz. bottle of NuKoat CCC Solution
2. 2 – 250 ml beakers, polyethylene
3. 1 – 8 oz. trigger bottle for water rinsing
4. 2 – Disposable acid brushes/wipes

To properly use the NuKoat CCC kit, the following process steps must be applied (the process step details are outlined later in the Instructions for Use):

1. Pre-cleaning Magnesium Alloys surface
2. Water rinse
3. Treatment with NuKoat CCC
4. Water rinse
5. Dry

To safely handle and use the NuKoat CCC kit, the following personal protective equipment items are necessary:

Tightly sealed goggles

Rubber gloves

Long sleeves and long pants made from chemically resistant materials

Vapor respirator that conforms to NIOSH/MSHA standards.

# NuKoat CCC



## Surface Preparation:

### Pre-cleaning:

In order to get the best possible result from the NuKoat CCC, surfaces to be treated need to be free from oils, greases, corrosion, dirt, etc. Remove corrosion using documented procedures specific to the grade of Magnesium Alloy being treated. Clean surface with appropriate solvent or aqueous, mildly-alkaline cleaner applied with a cleaning brush or rag. Any solvents, flammable or not, should be used with adequate ventilation designed in accordance with OSHA standard (29 CFR 1910.94). Ensure that all safety precautions are followed when working with solvents by referring to their Safety Data Sheets.

### Water rinse:

Rinse the pre-cleaned surface thoroughly with clean water using the supplied spray bottle. Surface cleanliness can be verified by a “water break” test. If there are any areas that are still soiled, it is necessary that the surface be re-cleaned with appropriate solvent or aqueous, mildly-alkaline cleaner again. Repeat the water rinse/water break test and/or pre-cleaning steps as necessary until rinsing produces a water-break free surface (Figure 1).

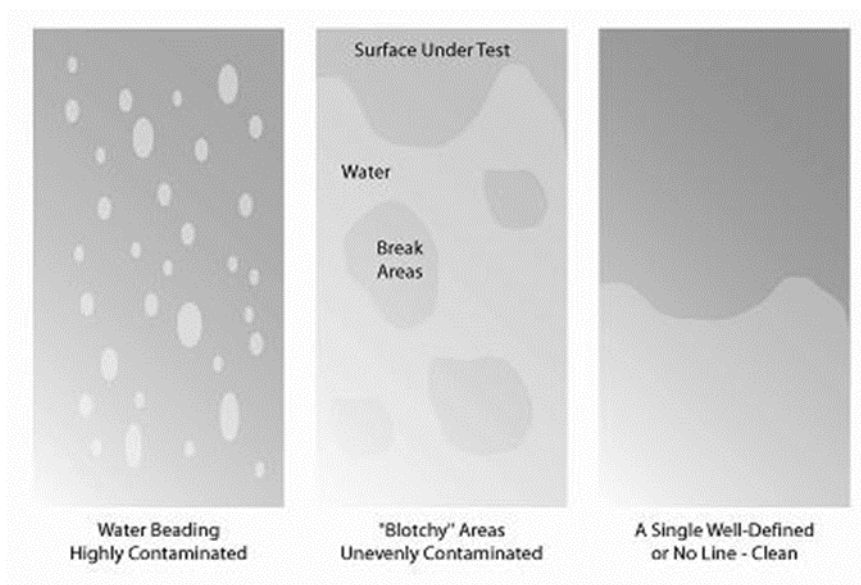


Figure 1



After rinsing, it is advised that the surface NOT be dried prior to applying NuKoat CCC. A wet surface will actually help achieve a more uniform coating.

#### Treatment with NuKoat CCC:

NuKoat CCC is a ready to use solution and does not require any dilution prior to use. The optimal solution temperature to use NuKoat CCC is between 60 -100 °F (15-37 °C). The metal surface to which NuKoat CCC is being applied should also be between 60 -100 °F (15-37 °C).

To apply the NuKoat CCC, use one of the disposable acid brushes to apply the solution to the clean Magnesium Alloy surface. Apply solution evenly, using liberal amounts. For best results, ensure that the surface remains wet for at least 1-3 minutes. Do NOT allow the solution to dry on the Magnesium Alloy surface. As the treatment proceeds, the Magnesium Alloy surface will slowly turn to a pale gold or brass-like color. Color varies according to each Magnesium Alloy and treatment time.

#### Water rinse:

After the 1-3 minute treatment time, it is critical that any excess NuKoat CCC be rinsed from the surface of the Magnesium Alloy. Using the supplied spray bottle, rinse treatment area thoroughly with water. Do NOT rinse the treatment area with a high-pressure spray or wipe the treatment area dry. The initial formation of the coating is soft and gel-like and the uniformity of the coating can be easily disturbed.

Repeat treatment process until treatment area is uniformly coated.

#### Dry:

Allow the treatment area to air dry. After initial drying, if there is any residual water left in small crevices, joints or tight spaces, treatment area may be further dried with clean, dry compressed air to speed the drying. A treatment area that has been properly coated and dried will be free of product "dusts" and appear as a thin gray to brown color. After treatment area is completely dry, further processing can be performed.

#### Other process information:

For large treatment areas, the NuKoat CCC should only be applied to an area that can easily be kept wet in a timely manner. Work on small sections, if necessary to avoid rework. When using a provided acid brush for application, the coating can sometimes appear non-uniformed or streaked. This is ok.

After processing with NuKoat CCC, the treatment area can be further processed or painted. Do not touch treatment area with bare hands, as any oils that contaminate the surface will interfere with subsequent processing. If painting step is not immediate, remove residual product "dusts" with clean, dry rags. Before painting, be sure to clean any contaminant oils from surface with an appropriate solvent.



Any application media (rags, brushes, etc.) used to apply NuKoat CCC should be rinsed immediately after use and not allowed to dry. NuKoat CCC contains a strong oxidizer (Chromic Acid) which presents a fire hazard in a dry form. Once application media has been thoroughly rinsed, it may be discarded according to proper, applicable local and federal regulations.

For information on storage requirements, disposal information and other precautionary and hazard information, please refer to the NuKoat CCC Safety Data Sheet (SDS).