BONDERITE M-CR 120 BRUSH AERO
CHROMATE CONVERSION COATING BRUSH KIT
(KNOWN AS ALODINE 120 BRUSH KIT)

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INTRODUCTION:

BONDERITE M-CR 120 AERO (known as ALODINE 120 BRUSH KIT) contains products formulated for treating aluminum to conform to MIL-C-5541C, Class 1A. This kit contains sufficient chemicals for cleaning and coating approximately 100 square feet of aluminum surface when used under normal conditions and in accordance with the following directions.

OPERATING SUMMARY:

The products are used as received to produce the coating on aluminum.

PROCESS:

The complete process for treating aluminum with BONDERITE M-CR 120 AERO (known as ALODINE 120 BRUSH KIT) normally consists of the following steps.

1. Cleaning with BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605)
2. Water rinsing
3. Treating with BONDERITE M-CR 1201 AERO (known as ALODINE 1201)
4. Water Rinsing
5. Drying

MATERIALS:

The materials contained in BONDERITE M-CR 120 AERO (known as ALODINE 120 BRUSH KIT) are:

Description	Quantity
BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605)	1 quart
BONDERITE M-CR 1201 AERO (known as ALODINE 1201)	1 quart
Beakers, polyethylene, 250-mL	2
Brush, nylon	1

BONDERITE M-CR 1201 AERO (known as ALODINE 1201) and BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605) are available in bulk for industrial use in brush, dip or spray processes. Directions for such use will be sent on request.

EQUIPMENT RECOMMENDATION:

A synthetic sponge, goggles, rubberized gauntlets, a respirator (if the solutions are sprayed) and clean wiping cloths.

NOTE: Beaker and brushes should be washed out with water after cleaning and after coating with BONDERITE M-CR 1201 AERO (known as ALODINE 1201).

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SURFACE PREPARATION:

Cleaning:
Surfaces previously anodized or coated with BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605) should be cleaned with paint or lacquer thinner applied with a clean brush or rags prior to spot treatment with BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605). A steam jenny or gun with non-etching alkali may be used.

Surfaces not previously coated and/or corroded surfaces should be cleaned with BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605). Brush the BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605) liberally on the surface, scrubbing oily areas thoroughly. Keep the surface wet with this solution for 1 to 3 minutes before rinsing.

Rinsing:
Before the BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605) dries, rinse the work thoroughly with clean water from a hose or by using clean water and applying with a brush, sponge or rag. After rinsing, the surface should be checked carefully to see that all surfaces are thoroughly wet. If there are "water break" areas, the surface is still dirty or oily and should be retreated with BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605) solution until water rinsing produces a "water break" free surface - or, in other words, a uniformly wetted surface.

It is not necessary to dry the rinsed surface prior to the application of BONDERITE M-CR 1201 AERO (known as ALODINE 1201); keeping the rinsed surface wet with water prior to the application of BONDERITE M-CR 1201 AERO (known as ALODINE 1201) will assist in obtaining a more uniform BONDERITE M-CR 1201 AERO (known as ALODINE 1201) coating.

TREATING WITH BONDERITE M-CR 1201 AERO (known as ALODINE 1201):

Buildup:
The BONDERITE M-CR 1201 AERO (known as ALODINE 1201) is used as received.

The coating produced with BONDERITE M-CR 1201 AERO (known as ALODINE 1201) in accordance with the above directions, meets the requirements of Military Specification MIL-C-5541B - for Class No. 1A, painted or unpainted. Other BONDERITE chemicals are available to meet other application methods and Classes of this specification.

Aluminum properly treated with BONDERITE M-CR 1201 AERO (known as ALODINE 1201) usually has a thin, iridescent golden coating. The coating is hard and free from powder if the chemical has been properly applied.

When BONDERITE M-CR 1201 AERO (known as ALODINE 1201) is applied with a brush, the coating appears to be non-uniform. Streaks arising from brush marks and "rundown" of excess solution from the brush will be evident, but these are not harmful. These conditions may be exaggerated if the metal has not been properly cleaned.

More surface uniformity will be obtained by applying the BONDERITE M-CR 1201 AERO (known as ALODINE 1201) to an aluminum surface which is wet with water from the cleaner rinse; or by applying it with a conventional paint spray gun.

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Operation:
Apply the BONDERITE M-CR 1201 AERO (known as ALODINE 1201) with a brush, paint spray gun, cellulose sponge, etc., to the cleaned and rinsed aluminum surface, liberally, quickly and evenly; keep surface wet and allow it to react from 1 to 5 minutes before rinsing.

The solution should be applied to only as much surface as can be coated and rinsed before the BONDERITE M-CR 1201 AERO (known as ALODINE 1201) solution dries. Proceed with the coating and rinsing until the entire surface is coated with BONDERITE M-CR 1201 AERO (known as ALODINE 1201).

AFTER TREATMENT:

Rinsing:
Before the BONDERITE M-CR 1201 AERO (known as ALODINE 1201) dries, wipe it from the surface with a clean cloth or sponge wet with clean water. The BONDERITE M-CR 1201 AERO (known as ALODINE 1201) may also be rinsed from the surface with clean water from a hose.

Drying:
After the rinsing, allow the work to air dry. As an aid to drying, heating the treated part, blowing off with clean, dry, filtered, forced air or gently wiping with a dry, clean rag will lessen the time required. Do not allow the aluminum metal temperature to exceed 140 Fahrenheit.

NOTE: If the work coated with BONDERITE M-CR 1201 AERO (known as ALODINE 1201) is to be painted, it should not be touched with bare hands. If painting is delayed, remove dust with clean, dry rags. If oil collects on the surface coated with BONDERITE M-CR 1201 AERO (known as ALODINE 1201), remove it with paint thinner.

STORAGE REQUIREMENTS:

Products should not be permitted to freeze or be exposed to temperature in excess of 100° Fahrenheit.

DISPOSAL INFORMATION:

Applicable regulations covering disposal and discharge of chemicals should be consulted and followed.

Disposal information for the chemicals in the form as supplied is given on the Material Safety Data Sheet for each product.

The cleaning and processing baths are acidic. BONDERITE C-IC DEOXDZR 605 AERO (known as TURCO DEOXIDINE 605) contains phosphates and BONDERITE M-CR 1201 AERO (known as ALODINE 1201) contains hexavalent chromium and fluorides. Waste treatment and neutralization may be required prior to discharge to the sewer. (Refer to Waste Treatment Information Bulletin WT1004, available on request.)

The processing bath and sludge can contain ingredients other than those present in the chemical as supplied and analysis of the solution and/or sludge may be required prior to disposal.

Rags, sponges, swabs, etc., used for applying or removing the BONDERITE M-CR 1201 AERO (known as ALODINE 1201) solution should not be allowed to dry out. If allowed to dry, they may constitute a fire hazard. Immediately after use they should be thoroughly washed in water before discarding.

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PRECAUTIONARY INFORMATION:

When handling the chemical products used in this process, the first aid and handling recommendations on the Henkel Material Safety Data Sheet for each product should be read, understood and followed.

The products are acidic and may cause irritation of the skin and eyes. Do not get in eyes, on skin or on clothing. See Material Safety Data Sheet for appropriate protective clothing. In case of contact, follow the recommendations on the Material Safety Data Sheet for BONDERITE M-CR 1201 AERO (known as ALODINE 1201).

Handle the chemicals carefully, observing the usual precautions taken in the handling of acidic materials. Keep all unused chemicals tightly sealed when not in use. Goggles, rubberized gauntlets and protection for the clothing must be worn; if solutions are sprayed, a respirator must be worn.

Clothing contaminated with BONDERITE M-CR 1201 AERO (known as ALODINE 1201) can become dangerously flammable. Immediately remove contaminated clothing and rinse thoroughly with water.

Contact of combustible material with BONDERITE M-CR 1201 AERO (known as ALODINE 1201) may cause fire.

BONDERITE M-CR 1201 AERO (known as ALODINE 1201) contains chromic acid in excess of 0.1 percent. The following statement should be included as part of the label for containers in which it is stored.

"POSSIBLE CANCER HAZARD, CONTAINS CHROMIC ACID WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA. Risk of cancer depends on duration and level of exposure."

NOTICE:

The above information and recommendations concerning this product are based upon our laboratory tests and field use experience with this or similar products. However, since conditions of actual use are beyond our control, any recommendations or suggestions are made without warranty, express or implied. Manufacturer's and seller's sole obligation shall be to replace that portion of the product shown to be defective. Neither shall be liable for any loss, damage, or injury, direct or consequential, arising out of the use of this product.