BONDERITE M-NT 5700 AERO
NEW GENERATION NON-CHROMATE COATING
(KNOWN AS ALODINE 5700)

INTRODUCTION:

BONDERITE M-NT 5700 (known as ALODINE 5700) treatment is a chromium free conversion coating specifically formulated for treating aluminum and its alloys. This product is formulated as a ready-to-use material for spray applications. The process provides an excellent base for organic finishes. It is recommended that BONDERITE M-NT 5700 product be rinsed after being applied.

OPERATING SUMMARY:

Chemical:	**Bath Preparation per 100 gallons**
BONDERITE M-NT 5700 AERO	Ready-to-use
Operation and Control:	
Time (minutes)	1 to 5
Temperature (° Fahrenheit)	70° to 100°

PROCESS:

The complete process sequence normally consists of the following steps:

1. Cleaning using a BONDERITE cleaner.
2. Water Rinsing
3. Treating with BONDERITE M-NT 5700 AERO solution
4. Water rinsing
5. Drying

MATERIALS:

1. BONDERITE M-NT 5700 AERO
2. BONDERITE M-AD 700 (known as PARCO NEUTRALIZER 700)
3. Testing Reagents and Apparatus

BONDERITE M-NT 5700 AERO
NEW GENERATION NON-CHROMATE COATING
(KNOWN AS ALODINE 5700)

EQUIPMENT RECOMMENDATION:

Process tank, housing, pumps and piping should be fabricated from 316L or 304L stainless steel. The 316L being preferred for maximum tank life. A secondary choice is 316 or 304 stainless steel fabricated with approved welding techniques. PVC may be used for process piping spray nozzles fabricated from 316 stainless steel or polypropylene should be used.

Heat exchanger plates or other heating devices should be electro-polished 316L stainless steel. All process circulation pump seals, valve seats, door seals, etc., which come into contact with the process solution and occasional acid equipment cleaners, should be EPDM, FKM or PTFE.

Chemical feed pump parts and other elastomers which may come into contact with BONDERITE M-NT 5700 AERO chemical should be EPDM, FKM or PTFE.

Support equipment available from Henkel Surface Technologies for this process includes: chemical feed pumps, level controls, transfer pumps and bulk storage tanks.

Our sales representative should be consulted for information on Henkel Surface Technologies automatic process control equipment for this process and any additional questions.

All equipment which will be in contact with BONDERITE M-NT 5700 AERO or processing solution should be thoroughly cleaned prior to use with the process. This includes such items as chemical metering pumps, solution tank, spray nozzles, spray zone shields and housings. Our representative will supply a recommended clean-out procedure which should be followed.

SURFACE PREPARATION:

Cleaning:
All metal to be treated with the processing solution must be free from grease, oil and other foreign matter before the treatment. A complete line of BONDERITE materials are available and our representative will recommend the proper one for each installation.

Water Rinsing:
After cleaning, the metal must be thoroughly rinsed with water. The rinse should be overflowed continuously at a rate which will keep it clean and free from scum and contamination. The conductivity of the final rinse water should be less than 50 mS.

TREATING WITH BONDERITE M-NT 5700 PROCESSING SOLUTION:

Buildup:
This material is operated as a ready-to-use product, therefore not requiring any in-plant dilution.

Operation:

Time:	1.0 to 5.0 minutes.
Temperature:	70° to 100° Fahrenheit.

Our representative will assist in establishing the proper concentration application techniques.

TESTING AND CONTROL:

Never pipet by mouth, use a pipet filler.

Concentration:
This is a ready-to-use product. If a titration is required to check concentration then perform the following.

Since this is a reverse titration, the treatment bath is used to titrate the solution prepared below.

Pipet (or discharge from a buret) exactly 10 ml of Titrating Solution 15 into a 150 ml beaker, add 50 ml of water, then 5 ml of Reagent Solution 44.

The concentration may be determined from the following table:

Titration (ml)	Concentration % by volume
6.0	 100

NOTE: The greater the concentration, the lower the number of mls (points) of titration.

When BONDERITE M-NT 5700 AERO is used as a rinsable coating with wet undisturbed film contact times greater than one minute, then no pH adjustment is necessary.

When the contact time is less than one minute, the treatment pH should be raised to a pH of 3.0 to 3.2 to permit rapid coating to occur.

AFTER TREATMENT:

Rinsing:
Quality tap water or more preferably reverse osmosis or deionized water.

Drying:
Parts coming from the coating bath should be dried in an indirectly fired oven or by other means which will not contaminate the metal with fumes, oil or partially burned gases.

Products with cavities or pockets which trap moisture should be blown dry with a jet of clean, compressed air.
If handling of the dried, unpainted work is necessary, operators should wear clean cotton gloves.

STORAGE REQUIREMENTS:

BONDERITE M-NT 5700 AERO should be protected from freezing. If the chemical is frozen, it will be irreversibly damaged and should not be used. BONDERITE M-NT 5700 AERO may precipitate if stored at temperatures below 40° or above 100° Fahrenheit. The product must be stored between 40° and 100° Fahrenheit. If exposed to temperatures outside that range for short periods, the product should be immediately returned to the proper temperature and stirred.

DISPOSAL INFORMATION:

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

Disposal information for BONDERITE M-NT 5700 AERO is given on the Henkel Material Safety Data Sheet for each product.

The processing bath is acidic and contains fluorides. Waste treatment and neutralization may be required prior to discharge to sewer.

PRECAUTIONARY INFORMATION:

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

The processing solution is acidic and may be irritating to skin and may cause burns to eyes. Avoid contact with skin and eyes. In case of contact follow the recommendations for contact given on the Henkel Material Safety Data Sheet for BONDERITE M-NT 5700 AERO.

Before using this product refer to container label and HENKEL TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional precautionary, handling and first aid information.

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.

Testing Reagents and Apparatus
(Order only those items which are not already on hand)

Code	Quantity	Item
592462	2*	Beaker, 150-ml
592477	1	Buret Assembly, 25-ml Automatic
592492	2*	Pipet, 10-ml Volumetric
592494	1	Pipet Filler
592499	1	Pitcher, Graduated, Plastic
593846	5 pt	Reagent Solution 44 (50% H_2SO_4)
592428	1 gal	Titrating Solution 15 (0.042N $KmnO_4$)

* Includes one more than actually required, to allow for possible breakage.

-* * * * *-

Rev. 8/2013

Henkel Corporation | 32100 Stephenson Highway | Madison Heights, MI 48071
PHONE: (248) 583-9300 | FAX: (248) 583-2976 | www.henkelna.com/