

BONDERITE C-AK 4090 AERO ALKALINE CLEANER (Known as TURCO AIRLION /T-4090)

INTRODUCTION:

BONDERITE C-AK 4090 AERO (Known as TURCO AIRLION/T-4090) is a phosphated, free flowing powdered, immersion-applied, inhibited or non-etching, heavy duty, multi-metal cleaning product designed specifically for aerospace applications.

FEATURES:

- Removes various soils such as drawing compounds, oils, polishing compounds, greases, inks and wax-based markings.
- Superior cleaning compared to vapor degreasing, while providing long effective bath life.

OPERATING SUMMARY:

<u>Chemical:</u>	<u>Bath Preparation per 100 Gallons:</u>	
General Use:	31.25 to 37.5 lbs.	14.2 kgs to 17 kgs
BAC 5749 Use:	31.25 to 50 lbs.	14.2 kgs to 22.7 kgs
<u>Operation and Control:</u>		
General Use:		
Concentration:	7 to 8.5 mls	
BAC 5740 Use		
Concentration:	7 to 11.5 mls	
Time:	2 to 30 minutes	
Temperature:		
(General Use):	110° to 160° Fahrenheit	43° to 71° C
(BAC 5749 Use):	160° to 190° Fahrenheit	71° to 88°C

BONDERITE C-AK 4090 AERO ALKALINE CLEANER (Known as TURCO AIRLION /T-4090)

PROCESS:

The complete process normally consists of the following steps:

1. Cleaning with BONDERITE C-AK 4090 AERO
2. Warm water rinsing (110° to 120°F/43° to 49°C)
3. Deoxidizing/desmutting with suitable BONDERITE® material
4. Water rinsing
5. Required treatment

MATERIALS:

BONDERITE C-AK 4090 AERO
Testing reagents and Apparatus

EQUIPMENT:

The process tank and related equipment, pumps and piping for use with this solution may be constructed of mild steel, black iron or 300 series stainless steel. All process circulating pump seals, valve seats, and other elastomers which come in contact with the working process solution should be Buna-N, Teflon™ or Viton™. EPDM elastomers should be avoided.

Automatic process control equipment, which promotes consistent quality and controlled costs, is available for automatically controlling this process. Auxiliary equipment, which is engineered and specified for this process, include air operated chemical transfer pumps, chemical metering pumps, reliable level controls, solenoid valve assemblies and bulk storage tanks. All chemical pump seals, valve seats and other elastomers which come in contact with the concentrated solution can be Buna-N, Teflon, Viton or Hypalon™.

Our sales representative should be consulted for information on Henkel Surface Technologies automatic process control equipment for this process and any additional questions. In addition, the "Henkel Surface Technologies Equipment Design Manual" may be consulted.

CLEANING WITH THE BONDERITE C-AK 4090 AERO CLEANER SOLUTION:**Buildup:**

Fill the tank about three-fourths full with room temperature water. For each 100 gallons of final solution volume add 31.25 to 37.5 lbs. (14.2 Kgs to 17 Kgs) of BONDERITE C-AK 4090 AERO chemical, (the specific amount to be added is dependent upon bath strength desired), and agitate until thoroughly mixed. Finally, add sufficient water to bring solution up to the working level and then heat to the desired operating temperature.



BONDERITE C-AK 4090 AERO ALKALINE CLEANER (Known as TURCO AIRLION /T-4090)

OPERATION:

	<u>General Use:</u>	<u>BAC 5749 use:</u>
Time:	2 to 30 minutes	As required
Temperature:	110° to 160° Fahrenheit 43° to 71°C	160° to 190°Fahrenheit 71° to 88°C

If desired, the cleaner bath can be continuously mechanically agitated by means of a Lightin Mixer or a similar device while processing work. Air agitation is not recommended.

TESTING AND CONTROL:

Never pipet by mouth. Use a pipet filler.

BONDERITE C-AK 4090 AERO CLEANER BATH TITRATION:

Pipet a 20 ml room temperature sample into a 250 ml Erlenmeyer flask or beaker. Add 80 to 90 mls deionized water. Next add 5 to 8 drops of Indicator 2. Titrate the sample against 1.0N Sulfuric Acid until blue-green to yellow color is obtained. Record the number of mls of 1.0N Sulfuric Acid as the cleaner bath concentration titration.

mls of 1.0N Sulfuric Acid x 0.713 = ozs./gal. BONDERITE C-AK 4090 AERO

Concentration range: 7 to 8.5 mls for general purpose use

Concentration range: 7 to 11.5 mls for BAC 5749 use

To increase concentration by 0.1 point, add 0.9 lbs.(425 gms) of BONDERITE C-AK 4090 AERO per 100 gallons.

AFTER TREATMENT:

After cleaning with the BONDERITE C-AK 4090 AERO chemical, the work is thoroughly rinsed in warm water. The rinse should be continuously overflowed and the overflow should be regulated with the rate of production so that the main body of the rinse never becomes excessively contaminated.

STORAGE REQUIREMENTS:

BONDERITE C-AK 4090 AERO is a powdered product which will not freeze. Store away from excessive heat.



BONDERITE C-AK 4090 AERO ALKALINE CLEANER

(Known as TURCO AIRLION /T-4090)

DISPOSAL INFORMATION:

Applicable regulations covering disposal and discharge of chemicals should be consulted and followed. Disposal information for the chemical, in the form as supplied, is given in the Henkel Material Safety Data Sheet for this product.

The processing bath is alkaline. Waste treatment and neutralization may be required prior to discharge.

Dispose of spent solution per local, state and regional regulations. Refer to HENKEL SURFACE TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional disposal information.

PRECAUTIONARY INFORMATION:

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

The processing bath is alkaline and may cause irritation of the skin and eyes. Do not get in eyes, on skin or on clothing. Do not take internally. Wear face shield, rubber gloves and protective clothing when handling. NIOSH approved respirator equipped with a mechanical filter should be worn for mist conditions.

In case of contact, follow the recommendations on the Henkel Material Safety Data Sheet for BONDERITE C-AK 4090 AERO

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.



BONDERITE C-AK 4090 AERO ALKALINE CLEANER (Known as TURCO AIRLION /T-4090)

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

<u>Code</u>	<u>Quantity</u>	<u>Item</u>
205700	1	Buret Assembly, 25-ml Automatic
205982	2*	Flask, Erlenmeyer, 250-ml
205002	250 ml .	Indicator 2 (Bromocresol Green)
205590	1	Indicator Dropping Bottle
205878	2*	Pipet, Measuring , 25-ml
205984	1	Pocket Thermometer (0-220°F)
.....	(1.0N Sulfuric Acid)

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