

**BONDERITE C-AK ALUM ETCH 3 AERO
ALKALINE CLEANER-LIGHT ETCHANT
(KNOWN AS TURCO ALUMINETCH #3)**

INTRODUCTION:

BONDERITE C-AK ALUM ETCH 3 AERO (known as TURCO ALUMINETCH #3) is a white, granular mixture formulated to clean soils and lightly etch aluminum by immersion methods.

BONDERITE C-AK ALUM ETCH 3 AERO solution has a low surface tension which causes a uniform wetting of the metal surface and produces a smooth matte finish on extrusions, structural shapes, aircraft components, truck bodies and similar aluminum parts.

FEATURES:

- Nonflammable in powder form or in solution
- Readily mixes with cold water at recommended dilutions
- Produces minimal amount of soft, noncaking sludge
- Operates from 50° to 70°C
- Produces uniform etch rate from 0.05 to 0.10 mils per minute on most aluminum alloys
- Easily controlled by simple titration

USE INSTRUCTIONS:

Equipment: Tanks and associated equipment may be fabricated from mild steel or stainless steel. Stainless steel is preferred.

Avoid adding large quantities of material at one time as this may generate localized pockets of steam. Mix thoroughly. Maintain temperature in the range 50° to 70°C.

Cleaning-Etching: Normal immersion is from 3 to 5 minutes. However, heavily soiled parts should be precleaned. Your HST Sales Representative can recommend a suitable precleaner based upon your production requirements.

Etch Rate: A 45 g/L solution of BONDERITE C-AK ALUM ETCH 3 AERO at 60°C will have an etch-rate of approximately 0.10 mils per minute. The etch rate will be fairly constant until the amount of dissolved aluminum reaches approximately 12 g/L. When the aluminum in the solution reaches 12 g/L, it becomes necessary to increase the concentration of BONDERITE C-AK ALUM ETCH 3 AERO in order to maintain the same etch rate. The following procedure will maintain an approximately uniform etch rate:

- 12 g/L dissolved aluminum per gallon - Increase BONDERITE C-AK ALUM ETCH 3 AERO concentration to 67.5 g/L.
- 24 g/L of dissolved aluminum per gallon - Increase BONDERITE C-AK ALUM ETCH 3 AERO concentration to 75 g/L.
- 36 g/L of dissolved aluminum per gallon - At this point it is generally more economical to dump the bath and recharge with fresh BONDERITE C-AK ALUM ETCH 3 AERO.



**BONDERITE C-AK ALUM ETCH 3 AERO
ALKALINE CLEANER-LIGHT ETCHANT
(KNOWN AS TURCO ALUMINETCH #3)**

Rinsing: Rinse parts with warm water immediately after removal from the BONDERITE C-AK ALUM ETCH 3 AERO bath.

Deoxidizing/Desmutter: After rinsing, parts should be immersed in a deoxidizer/desmutter bath. Your HST Sales Representative can recommend an appropriate chromated or non-chromated deoxidizer/ desmutter. Following the deoxidizer/desmutter bath, parts should be rinsed with cold water and dried.

CONTROL: A laboratory test procedure is available upon request.

DISPOSAL INFORMATION:

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:

DANGER! Contact may cause burns to skin and eyes.

BONDERITE C-AK ALUM ETCH 3 AERO contains sodium hydroxide and phosphate. Avoid contact with eyes, skin and clothing. Do not take internally. Use with adequate (equivalent to outdoor) ventilation.

Protective clothing, such as a chemical face shield or goggles and gloves, boots and apron made from alkali resistant materials should be worn when handling and using this product. A **NIOSH approved** respirator should be worn when handling dry powder, or during mist conditions.

Never "dump" product into tank. Always add product to lukewarm, agitated water with care, since heat is liberated and local pockets of steam may be generated. Keep containers sealed when not in use. Transport and store in closed containers below 55°C.

Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed spaces and can be fatal. Follow appropriate tank entry procedures (see ANSI Z117.1-1977).

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



**BONDERITE C-AK ALUM ETCH 3 AERO
ALKALINE CLEANER-LIGHT ETCHANT
(KNOWN AS TURCO ALUMINETCH #3)**

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.

Rev. 8/2013

Distributed by:
Rudolph Bros. & Co.
PO Box 425, Canal Winchester, OH 43110
Phone: 614-833-0707
Fax: 800-600-9508
e-mail: rbcsupport@rudbro.com
www.rudbro.com

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

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.**

The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

