

# ACCU-LABS INC.

4831 S. Whipple Avenue  
Chicago IL 60632  
Phone: 773.523.3100 Fax: 773.523.4008  
[www.accu-labs.com](http://www.accu-labs.com)

**A2LA Accredited ISO/IEC 17025:2005 Certificate # 2558.01**

## **PC-16** ACID METAL CLEANER AND CONDITIONER FOR ALUMINUM

Accu-Labs PC-16 is an acid metal cleaner and surface conditioner that works on most metals including steel, aluminum, copper, brass and zinc. PC-16 removes oil, grease, dirt, chemical stains, rust, heat scale, and oxides and conditions the metal's surface - in one step. It can be used in a one-tank operation or, when conditions warrant, it may be applied by brushing or hand swabbing-with equally good results. PC-16 has excellent rinseability; is biodegradable to help reduce waste disposal problems; and is easy to work with because there are no obnoxious fumes.

Aluminum and aluminum alloy parts cleaned and conditioned in PC-16 are provided with uniformly low surface resistance for improved spot welding; and the surfaces are made more receptive to conversion coatings. Similarly, steel parts cleaned and conditioned in PC-16 are assured of significantly improved paint bonding and paint protection. PC-16 also is excellent for removing dirt and imbedded soils from stainless steel parts and for the uniform repassivation of their surface.

PC-16 conforms to Military Specification MIL-C-46487, Grade II; and to Federal Specification TT-C-490B, Method VI.

- |   |   |
|---|---|
| • Efficient, cost saving product              | Cleans and surface conditions metal parts in one step by immersion or wipe-on |
| • Effective on ferrous and non-ferrous metals | One-product versatility for numerous applications                             |
| • Liquid concentrate                          | Easy mixing   |

### **EQUIPMENT**

#### Tank and Heating

Use stainless steel tanks, or use tanks lined with rubber or other material resistant to phosphoric acid solutions operated at temperatures up to 150°F (65°C). Use stainless steel or derated quartz immersion heaters.

**Ventilation:**

The work area (for either immersion or wipe-on application) should be adequately ventilated. Use a local exhaust system made of acid-resistant material.

**Immersion:****PC-16 Bath Guidelines**

PC-16 Concentrate	5 to 25% by volume (recommend 20% when used with 628-CC Non-Chrome Conversion Coating)
Bath Temperature	130-150°F (55-65°C)*
Immersion time	½ - 2 minutes typical

\*Best results occur within temperature range shown, but product may be used at lower temperatures for some applications.

**Wipe-on:**

If immersion is not practical, PC-16 may be applied by brushing (or hand swabbing) the area to be treated, allowed to soak for the required time, then rinsed off.

PC-16	5 to 40% by volume
Solution temperature	Room temperature
Contact time	2 to 5 minutes

**MAKE UP & MAINTENANCE**

Solution make up

1. Fill tank ½ full with cold water.
2. Slowly add required amount PC-16. Avoid spattering.
3. Add water to bring solution to working level and mix thoroughly.
4. Heat to operating temperature.

**ANALYTICAL CONTROL**

1. Pipette 10mL cooled sample of working solution into 250 mL Erlenmeyer flask.
2. Add 3 to 5 drops of phenolphthalein indicator.
3. Titrate with 2.0N sodium hydroxide to a red color change.

**Calculation:** % by vol. PC-16 = ml 2.0N sodium hydroxide x 1.15

## **SAFETY & HANDLING CONSIDERATIONS**

Read and review the Material Safety Data Sheets for the appropriate health and safety warnings before use.

**WARNING:** PC-16 contains a high concentration of phosphoric acid; store in tightly closed containers away from heat and direct sunlight. Avoid contact with eyes, skin and clothing. PC-16 (concentrate or solutions) will cause burns to eyes and skin and may be fatal if swallowed. Avoid breathing solution mist or vapor.

When using PC-16, wear rubber gloves, rubber apron, rubber boots, safety goggles, and face shield. Use with adequate ventilation. Wash thoroughly after handling.

## **DISCLAIMER**

The information contained in this bulletin is, to the best of our knowledge, true and accurate. All recommendations are made without guarantee. Accu-Labs, Inc. disclaims any and all liability arising from the use of this product or the information contained herein.