

# Chemeon Cleaner 4000

A non-etch, mildly acidic liquid soak cleaner for aluminum alloys, which contains a unique blend of biodegradable surfactants and a mild inhibited acid. Chemeon Cleaner 4000 is also an excellent cleaner/burnishing compound for use in vibratory finishing mills or “part on part” tumbling barrels as well as ultrasonic cleaning. May be used on brass and copper.

Chemeon cleaner 4000 may be used as a single step cleaner/acid activator pretreatment for the application of chemeon tcp-hf conversion coatings. Chemeon cleaner 4000 is also suitable as a combination cleaner/deoxidizer for aluminum anodizing and will not etch polished aluminum when used as recommended.

## Features & Benefits

Excellent cleaner/burnishing compound	May be used on brass and copper
Biodegradable surfactants	Will not etch aluminum

## Physical Data

Specific gravity	1.06
Solubility in water	Complete
Appearance and odor	Pale-yellow liquid
pH concentrate	4.8 – 5.2

## Operating Conditions

Method of Application: Soak

Concentration	5% – 10% by vol. (7.5 nominal for aluminum)
Temperatures	110°F – 200°F (120°F – 160°F (max) for aluminum)



Time	2 – 10 min (all substrates)
pH	5.0 – 5.5
Tank material	Lined mild steel or stainless steel
Heaters	Stainless steel or Teflon heating coils recommended

Best results are obtained when solution is agitated with air.

## Titration Method

1. Pipette 25.0 mL of the cleaning solution a 250 mL Erlenmeyer flask and add 75mL of deionized water.
2. Add 5 drops of Phenolphthalein indicator to the flask and swirl to mix.
3. Titrate solution with 0.1 N NaOH solution to a slight pink endpoint.
4. Record the amount of 0.1 N NaOH used.
5. Calculate the percent strength of cleaner by volume using the equation below.

Calculation

$$\text{Concentration (\% vol.)} = 0.87 \times \text{volume (in mL) 0.1 N NaOH solution}$$

### Solution Controls

#### Refractometer Method

1. Simply add a few drops of cleaning solution on to the refractometer and read the value from the scale.

<u>% by vol. Chemeon cleaner 4000</u>	<u>Refractometer reading</u>
5%	1.5
10%	3.0

## Waste Disposal

Chemeon cleaner 4000 may require neutralization to a specified pH range depending on federal, state, and local waste treatment regulations.

## Caution

Chemeon cleaner 4000 is a mildly acidic liquid. Wear protective clothing and goggles when handling this product. If exposed, flush thoroughly with clear, cold water. Always read the Safety Data Sheet to ensure familiarity with the methods of safe handling and

the health hazards associated with the product. In case of injury contact a doctor.

Chemeon cleaner 4000 should be stored in a cool, dry area. Keep container closed when not in use.

WARRANTY: THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.

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For more information on this process please call us at  
1-800-648-3412  
or [techservice@hubbardhall.com](mailto:techservice@hubbardhall.com)

