



# Technical Process Bulletin

Technical Process Bulletin No. 235489  
 This Revision: 19-08-1999

PARCO® CLEANER 2087X

1. Introduction:

The PARCO CLEANER 2087X is a single package liquid cleaner formulated for the removal of BONDERLUBE® lubricants and other drawing compounds or oils from baskets, racks, tumbling barrels and production parts. The cleaner may be applied by either spray or immersion.

2. Operating Summary:

<u>Chemical:</u>	<u>Bath Preparation per 100 Gallons</u>	
:		
PARCO CLEANER 2087X		
Immersion:	100 to 150 pounds	8.8 to 13 gallons
Spray:	50 to 75 pounds	4.4 to 6.5 gallons
<u>Operation and Control:</u>	<u>Spray</u>	<u>Immersion</u>
Free Alkali, points	4.4 to 6.5	8.8 to 13
Time, minutes	1 to 5	3 to 10
Temperature, ° Fahrenheit	175 to 190	200 to 210

3. Materials:

PARCO CLEANER 2087X  
 Testing Reagents and Apparatus

#### 4. Equipment:

The process tank, housing, pumps and piping for use with this solution may be constructed of mild steel. In spray applications, maintenance will be simplified if nozzles are fabricated from 300 series stainless steel. The heat exchanger plates should be polished 316 stainless steel. If gas fired burner tubes are used, they should be made of schedule 80 mild steel pipe or equivalent. All process circulating pump seals, valve seats, door seals, 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.

#### 5. Cleaning with the PARCO CLEANER 2087X Solution:

##### Buildup:

Fill the tank 3/4 full with cool water and add required amount of PARCO CLEANER 2087X per 100 gallons of solution.

Immersion: 100 to 150 pounds (8.8 to 13 gallons).  
Spray: 50 to 75 pounds (4.4 to 6.5 gallons).

The correct amount is best determined by the cleaning application and types of soils to be removed. If foaming becomes an issue after the tank has been contaminated, concentration should be increased to 10% v/v or 10 points free alkalinity. Fill the tank and heat to the operating temperature.

##### Operation:

###### Time:

Immersion: 3 to 10 minutes.  
Spray: 1 to 5 minutes.

###### Temperature:

Immersion: 200° to 210° Fahrenheit.  
Spray: 175° to 190° Fahrenheit.

After cleaning, the parts are thoroughly rinsed with hot water. The rinse should be overflowed continuously at a rate which will keep it clean and free from scum and contamination.

The cleaner will gradually accumulate grease and soil, and should be discarded when contamination interferes with cleaning. If excessive lubricant and/or scum floats on the surface, it should be skimmed to eliminate re-deposition.

#### 6. Testing and Control:

Never pipet by mouth, use a pipet filler.

Free Alkali:

Pipet a 10 ml sample into a 150-ml beaker. Add 50 ml of water and 5 drops of Indicator 3. Titrate with Titrating Solution 60 until one drop discharges the last of the pink color and the solution remains colorless for 15 seconds. The ml of Titrating Solution 60 used is the free alkali value in points.

Free alkali range: Within  $\pm 0.5$  point of the value found to give the best results.

To increase value 1 point (ml): 11.4 pounds (1 gallon) of PARCO CLEANER 2087X per 100 gallons of solution volume.

The PARCO CLEANER 2087X concentration in the cleaning solution in percent by volume (%V/V) is equal to the free alkali value in points.

Example:

6 points of free alkali (6 ml of Titrating Solution 60) = 6% v/v concentration.

The strength of PARCO CLEANER 2087X may be increased or reduced, depending on the type of soil, the time available for cleaning and the characteristics of the equipment in which it is used.

7. Waste 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 on the Material Safety Data Sheet for the chemical.

The processing bath is alkaline. Neutralization may be required prior to discharge to the sewer. (Refer to Waste Treatment Information Bulletin WT1007, available on request.)

The processing bath and sludge which accumulates in the bath can contain ingredients other than those present in the chemical as supplied and analysis of the solution and/or sludge may be required prior to disposal.

8. Storage Requirements:

PARCO CLEANER 2087X is a very concentrated liquid and may separate slightly at temperatures below 40° Fahrenheit. If the concentrate is subjected to these extreme temperatures during storage, bringing its temperature up to ambient room temperature and mixing prior to usage will restore the uniformity of the product. If possible, the PARCO CLEANER 2087X should be stored between 60° and 90° Fahrenheit.

9. 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 bath is alkaline and can cause irritation of the skin and eyes. Do not get in eyes, on skin or on clothing. In case of contact, follow the recommendations on the Material Safety Data Sheet for PARCO CLEANER 2087X.

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

<u>Code</u>	<u>Quantity</u>	<u>Item</u>
205400 .....	2*	Beaker, 150-ml
205700 .....	1	Buret Assembly, 25-ml Automatic
205852 .....	2*	Graduated Cylinder, 50-ml
205003 .....	1 qt	Indicator 3 (phenolphthalein)
205590 .....	1	Indicator Dropping Bottle
205943 .....	2*	Pipet, 10-ml Volumetric
205947 .....	1	Pipet Filler
205956 .....	1	Pitcher, Graduated, Plastic
205980 .....	1	Thermometer, Floating
205260 .....	1 gal	Titrating Solution 60 (1.0N HCl)

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

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Company \_\_\_\_\_ Technical Process Bulletin No. 235489  
 Plant \_\_\_\_\_ Representative \_\_\_\_\_  
 Unit \_\_\_\_\_ Telephone \_\_\_\_\_

PARCO® CLEANER 2087X

Tank Tank No. \_\_\_\_\_  
 Working volume: \_\_\_\_\_ gallon.  
 \_\_\_\_\_ gallon per inch.

Buildup \_\_\_\_\_ pound of PARCO CLEANER 2087X.

Operation \_\_\_\_\_ minute at \_\_\_\_\_ ° Fahrenheit to \_\_\_\_\_ ° Fahrenheit.

Testing Test every \_\_\_\_\_.  
 and 10 ml sample.  
 Control 25 ml water.  
 5 drops Indicator 3.  
 Titrating Solution 60 until one drop discharges pink color and  
 solution remains clear for 15 seconds.

Range: \_\_\_\_\_ to \_\_\_\_\_.  
 Add \_\_\_\_\_ pound \_\_\_\_\_ gallon PARCO CLEANER 2087X to increase the  
 strength \_\_\_\_\_ point.

<u>Chemical</u>	<u>lb/gal</u>
PARCO CLEANER 2087X	Approximately 11.4

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