

**BONDERITE C-AK ZX-6
ALKALINE CLEANER
(KNOWN AS PARCO CLEANER ZX-6)**

Issued 7/23/2013

1. Introduction:

BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6) is a single package liquid alkaline cleaner specially designed as a multi-metal cleaner. BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6) contains a unique surfactant package that allows operation by both spray and immersion applications over a fairly wide temperature range. It has interstage corrosion protection additives and will chemically help to prevent nubbing on galvanized surfaces.

2. Operating Summary:

<u>Chemical:</u> BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6)	<u>Bath Preparation per 100 Gallons:</u> 0.5 to 4 gallons
<u>Operation and Control:</u> Free Alkali Time (Spray) Time (Immersion) Temperature (for steel) Temperature	3.1 to 24.8 points (ml) 30 to 120 seconds 1 to 5 minutes 125° to 160° Fahrenheit 110° to 150° Fahrenheit (for galvanized steel & aluminum)

3. Materials:

BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6)
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 316 stainless 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, PTFE or CSPE. FKM may be used but its life will be shorter. 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 should be PTFE or CSPE.



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Our sales representative should be consulted for information on Henkel Surface Technologies automatic process control equipment for this process and any additional questions.

5. Cleaning with BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6):

Buildup:

BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6) will clean effectively over a wide concentration range. Our representative will assist in establishing the most effective concentration for each application.

Fill the tank about three-fourths full with cold water. Add the recommended amount of BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6), then heat to the operating temperature. Buildup is usually in the range of 0.5 to 4 gallons per 100 gallons of working volume and is dependent upon the soil encountered, the metal being treated and the operating equipment and conditions.

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 5 drops of Indicator 3, then titrate with Titrating Solution 20 until one drop discharges the last of the pink. The ml of Titrating Solution 20 used is the free alkali value in points.

Please note that when processing high levels of aluminum metal, the free alkalinity test may need modification. See your Henkel Surface Technologies representative for details.

Free alkali range: within ± 1 point of the value which gives the best results.

To increase value 1 point: 0.17 gallon of BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6) per 100 gallons of solution volume.

<u>BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6)</u> <u>gals per 100 gal</u>	<u>Points</u>
0.5	3.1
1.0	6.2
2.0	12.4
3.0	18.6
4.0	24.8

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

Total Alkali:

Pipet a 10 ml sample into a 150-ml beaker. Add 5 drops of Indicator 2, then titrate with Titrating Solution 20 from blue through green until one drop discharges the last of the green and the solution color turns yellow. The ml of Titrating Solution 20 required indicates the total alkali value in points.

The total alkali value is used to calculate the total alkali/free alkali ratio.



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As the cleaner is used and becomes contaminated, the total alkali will rise. Thus, the ratio of the total alkali to free alkali will also rise and this becomes a useful measure of the degree of contamination of the cleaner solution.

The maximum value for the Total Alkali/Free Alkali ratio will vary depending upon the metal mix, the type of soil on the metal surface and the cleaner solution operating temperature. Our representative will assist in establishing the maximum value.

The solution may be periodically dumped or continuously overflowed or autodraind to keep the total alkali to free alkali ratio from exceeding the maximum value determined for the operation.

7. Storage Requirements:

Extreme temperatures should be avoided when storing BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6). Indoor storage at or near ambient temperature is recommended.

8. 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.

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

The cleaner solution and sludge 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.

9. Precautionary Information:

When handling the chemical in the form as supplied, the precautionary, first aid and handling recommendations on the Material Safety Data Sheet for the product should be read, understood and followed.

The cleaner solution is alkaline and can cause irritation of the skin and eyes and may burn 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 BONDERITE C-AK ZX-6 (known as PARCO CLEANER ZX-6).



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

<u>Code</u>	<u>Quantity</u>	<u>Item</u>
592462	3*	Beaker, 150-ml
592477	1	Buret Assembly, 25-ml Automatic
592396	250 ml	Indicator 2 (Bromocresol Green)
592398	250 ml	Indicator 3 (Phenolphthalein)
592475	2	Indicator Dropping Bottle
592492	2*	Pipet, 10-ml Volumetric
592494	1	Pipet Filler
592430	4.0 L	Titration Solution 20 (0.1N H ₂ SO ₄)

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

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