

**Technical Process Bulletin** 

# **BONDERITE C-AK 1574 ALKALINE CLEANER**

(KNOWN AS RIDOLINE 1574)

Issued 11/24/2014

# INTRODUCTION

BONDERITE C-AK 1574 (known as RIDOLINE 1574) is designed to remove rust, paint and other hard to clean soils from steel without staining prior to phosphate conversion coating or a remanufacturing operation. Used with surfactant package BONDERITE C-AK-0683 (known as P3-tensopon 0683).

Applied by either immersion or spray, this strongly alkaline cleaner is particularly recommended for use in remanufacturing processes.

## **OPERATING SUMMARY**

Chemical	Bath Preparation per 100 Gallons:
BONDERITE C-AK 1574 (known as RIDOLINE 1574)	10.0 to 50.0 gallons (or as required)
BONDERITE C-AK-0683 (known as P3-tensopon 0683)	1.0 to 5.0 gallons (or as required)

Operation:	Control:	
Free Alkalinity:	4.5 to 22.5 points	
Temperature:	140° to 210° Fahrenheit	
Processing Time:		
Cleaning	1/2 to 6 minutes	
Rust Removal	5 to 15 minutes	
Paint Stripping	5 to 30 minutes (or as required)	

#### MATERIALS

**BONDERITE C-AK 1574 BONDERITE C-AK-0683 Testing Reagents and Apparatus** 





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#### EQUIPMENT

The process tank, housing, pumps and piping for use with this solution may be constructed of mild steel. The heat exchanger plates should be polished 316 stainless steel. If gas fired burner tubes are used, they should be made of Schedule 10 316 stainless steel pipe. All process circulating pump seals, valve seats, door seals, and other elastomers which come in contact with the working process solution should be 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.

Your local sales representative should be consulted for information on Henkel Corporation automatic process control equipment for this process and any additional questions.

#### **CLEANING WITH BONDERITE C-AK 1574**

Buildup:

BONDERITE C-AK 1574 will clean effectively over a wide concentration range (e.g. 10-50 volume %). Our representative will assist in establishing the most effective concentration for each application.

Fill the tank with the appropriate volume of cold water (i.e. 50-85 volume %) Add the recommended amount of BONDERITE C-AK 1574, and then heat to the operating temperature. Buildup is usually in the range of 10 to 50 gallons per 100 gallons of working volume and is dependent upon the soil encountered, the metal being treated and the operating equipment and conditions.

### **TESTING AND CONTROL**

Never pipet by mouth, use a pipet filler.

#### Free Alkali:

Pipet a 5 ml sample into a 150-ml beaker. Add 50 ml water into the beaker. Place on a stirrer and mix. Using a standard pH meter and electrode(s), titrate with Titrating Solution 60 until a pH of 8.2 is obtained. The ml of Titrating Solution 60 used is the free alkali value in points.

Free alkali range:  $4.5 - 22.5 \pm 1$  point of the value which gives the best results.

To increase value 1 point: add 0.45 gallons of BONDERITE C-AK 1574 per 100 gallons of solution volume.

The free alkali points may be increased or reduced, depending upon the type of soil, the time available, and the characteristics of the equipment in which it is used. Your representative will determine the optimum operating parameters for your particular application.





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BONDERITE C-AK 1574 gallons per 100 gallons	POINTS – Free Alkalinity
10.0	4.5
20.0	9.0
30.0	13.5
40.0	18.0
50.0	22.5

#### STORAGE REQUIREMENTS

Extreme temperatures should be avoided when storing BONDERITE C-AK 1574. Indoor storage at or near ambient temperature is recommended.

# 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.

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.

# 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 1574.





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

IDH Code	Quantity	Item
89000-202**	2*	Beaker, 150-ml
592477	1	Buret Assembly, 25-ml Automatic
24776-042**	2*	Graduated Cylinder, 25-ml
N/A	1	pH meter
89003-482**	2*	Pipet, 5 ml Volumetric
53497-009**	1	Pipette Filler
53600-108**	1	500 ml Plastic Graduated Pitcher
89095-602**	1	Pocket Thermometer (0-220°F)
592430	1	Titrating Solution 60 (1N HCl) (4 Liters)

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

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