

## BONDERITE® C-AK 470

Known as PARCO CLEANER 470  
January 2024

### Product description

BONDERITE® C-AK 470 provides the following product characteristics:

<b>Technology</b>	Alkaline cleaner
<b>Product type</b>	Liquid alkaline cleaner
<b>Application</b>	Metal pretreatment

BONDERITE® C-AK 470 is a heavy duty liquid alkaline cleaner designed for the cleaning of ferrous metals.

### Direction for use

#### Preliminary statement:

Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

#### 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, PTFE or CSPE. FKM may be used but its life will be shorter. EPDM elastomers should be avoided.

All chemical pump seals, valve seats and other elastomers which come in contact with the concentrated solution can be PTFE or CSPE.

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.

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

#### Operating data:

Free alkalinity, points (mls)	7.5 to 37.5
Time (Spray), seconds	30 to 120
Time (Immersion), minutes	1 to 5
Temperature, °F	Ambient to 150

### Bath make-up per 100 gallons:

BONDERITE® C-AK 470 1.0 to 5.0 gallons

#### Bath make-up:

BONDERITE® C-AK 470 will clean effectively over a wide concentration range. Our representative will assist in establishing the most effective concentration for each application.

1. Fill the tank about 3/4 full with cold water.
2. Add the recommended amount of BONDERITE® C-AK 470 , then heat to the operating temperature.
3. Buildup is usually in the range of 1.0 to 5 gallons per 100 gallons of working volume and is dependent upon the soil encountered, the metal being treated and the operating equipment and conditions.

#### Operation:

Time	30 seconds to 5 minutes
Temperature, °F	Ambient - 150
Application	Spray/Immersion

#### Bath control:

Never pipet by mouth, use a pipet filler.

#### Free alkalinity:

1. Pipette 10 ml bath into a 150 ml beaker.
2. Add 5 drops of Indicator 3.
3. Titrate with Titrating Solution 20 until one drop discharges the last of the pink color.
4. The ml of Titrating Solution required indicates the concentration (free alkali) in points.

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

Free alkali range: 7.5 to 37.5 points within  $\pm 1$  point of the value which gives the best results.

To increase free alkalinity value 1 point: Add 0.13 gallons of BONDERITE® C-AK 470 per 100 gallons of solution volume.

#### Total alkalinity:

1. Pipette 10 ml bath into a 150 ml beaker.
2. Add 5 drops of Indicator 2.
3. Titrate with Titrating Solution 20 from blue through green until one drop discharges the last of the green.
4. The ml of Titrating Solution 20 used is the total alkali value in points.
5. Record the total alkali value for use in determining the alkali ratio below.

**Total Alkali/Free Alkali Ratio:**

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. The cleaner solution should be overflowed at a rate which will keep the alkali ratio between the level which will interface with proper cleaning. Our representative will assist in establishing the operating limits.

**After cleaning:****Water rinsing**

The rinse should be continuously overflowed and the overflow should be regulated with the rate of production so that the rinse never becomes excessively contaminated.

**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 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.

**General maintenance:**

During shut down periods, the bath should be overflowed to remove any soils that collect on top of the bath. The build up of soils in the BONDERITE® C-AK 470 Cleaner tank may necessitate abath discard and recharge. Screens, nozzles, and risers should be checked regularly. Discard frequency will depend upon production. Any scale build up in the tank should be removed by a suitable chemical or mechanical method.

**Precautions:**

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 BONDERITE® C-AK 470 .

**Classification:**

Please refer to the corresponding **Material Safety Data Sheets** for details on:

**Transport Regulations**  
**Hazardous Information**  
**Safety Regulations**

**Storage:**

Extreme temperatures should be avoided when storing BONDERITE® C-AK 470 . Indoor storage at or near ambient temperature is recommended.

**Additional information****Disclaimer**

The information provided in this Technical data sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical data sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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