

BONDERITE C-AK 338Known as Parco Cleaner 338
May 2022**PRODUCT DESCRIPTION**

BONDERITE C-AK 338 provides the following product characteristics:

Technology	Cleaner
Product Type	Liquid Alkaline Cleaner
Application	Metal Strip

BONDERITE C-AK 338 is designed to prepare aluminum, steel, hot-dip galvanized and electro galvanized steel surfaces. Applied by spray in sheet and stripline units, this strongly alkaline treatment is particularly recommended for use ahead of BONDERITE® processes.

DIRECTIONS 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.

Bath Make-up:

Bath Preparation per 100 Gallons:

Aluminium:	6 to 12 pounds
Steel and Electrogalvanized:	6 to 25 pounds
Hot Dip Galvanized:	3 to 15 pounds

Operating Data:

Free Alkali:	
Aluminium:	7 to 14 points (mL)
Steel:	7 to 30 points (mL)
Galvanized:	3.5 to 18 points (mL)
Time:	5 to 25 sec.
Temperature:	140 to 180 °F

Materials:

BONDERITE C-AK 338
Testing Reagents and Apparatus

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 constructed of 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. 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 Teflon or Hypalon™.

Cleaning Procedure:**Buildup:**

Aluminium:	6 to 12 pounds
Steel:	6 to 25 pounds
Galvanized:	3 to 15 pounds

Fill the tank about three-fourths full with water. Add the proper amount of each chemical and circulate. Add sufficient water to bring the solution up to the working level and then heat to the operating temperature.

Operation:

Time:	5 to 25 sec
Temperature:	140 to 180 °F

The cleaning solution gradually accumulates grease and soil, and should be discarded when contamination interferes with conditioning. An AUTODRAINER® control continuously discards a portion of the solution, and its use is recommended.

After cleaning, the metal is thoroughly rinsed with one or more stages of sprayed hot water. The rinse should be overflowed continuously at a rate which will keep it clean and free from scum and contamination.



Bath Control:Free Alkali:

- Pipette a 10 mL sample into a 150 mL beaker.
- Add 5 drops of Indicator 3.
- Titrate with Titrating Solution 20 until one drop discharges the last of the pink color.
- The mL of Titrating Solution 20 used is the Free Alkali value in points.

Free Alkali range: Within 0.5 point of the value found to give the best results.

To increase value 1 point (mL): Add 0.85 lb of BONDERITE C-AK 338 Chemical per 100 gal.

When making additions to a cold solution, sprinkle the dry chemical, slowly, over the surface of the solution while stirring the solution to dissolve the chemical. Adding too much chemical at one time may cause extreme heat buildup which can cause spattering of hot, strongly alkaline solution.

When making additions to a heated solution, add the chemical to cold water in a separate container, slowly, and with stirring to dissolve. Cool or dilute with more cold water and pour slowly into the hot solution in the tank. The tank should be stirred or circulating while making the addition. The strength of the solution can be obtained from the table.

kg BONDERITE C-AK 1523 per 455 L = 1.62 x points.

L BONDERITE C-AK 1523 per 455 L = 0.13 x points.

lb per 100 gal	oz per gal	Free Alkali Points
3	0.48	3.5
6	0.96	7.0
9	1.44	10.5
12	1.92	14.0
15	2.4	17.5
18	2.88	21.0
25	4.0	30

The cleaning solution strength 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.

Total Alkali:

- Pipette a 10 mL sample into a 150 mL beaker.
- Add 5 drops of Indicator 2.
- Titrate with Titrating Solution 20 from blue through green until one drop discharges the last of the green color.
- The mL of Titrating Solution 20 used is the Free Alkali value in points.
- The Total Alkali value is used to calculate the alkali ratio.

Total Alkali/Free Alkali Ratio:

As the cleaner is used and becomes contaminated, the total alkali value will rise. Thus, the ratio of the total alkali value to the free alkali value will also rise and this becomes a useful measure of the degree of contamination of the cleaner solution. 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 system. Total Alkali/Free Alkali Ratio should be monitored. The value under typical cleaning conditions should not be allowed to exceed 2.0.

Processing of Aluminum Surfaces:Free Alkali for Aliminum:

- Pipette a 10 mL sample into a 150 mL beaker.
- Add 5 drops of Indicator 3.
- Titrate with Titrating Solution 20 until one drop discharges the last of the pink color.
- Record the mL of Titrating Solution 20 used and substitute for "A" in the equation below.
- To the same sample, add 5 mL of Reagent Solution 37.
- With an aged bath the red color will reappear.
- Rezero the buret and again titrate with Titrating Solution 20 until one drop discharges the last of the pink color.
- Record the ml used and substitute for "B" in the equation below.

Equation:

$$\text{Free Alkali (points)} = A - B/3$$

As the cleaner is used and becomes contaminated, the value of "B" will rise. The maximum value for the "B" may vary for each operation. Our representative will assist in establishing the maximum value. The solution may be periodically dumped or continuously overflowed or autodraind to keep the value of "B" from exceeding the maximum value determined for the operation.

Free alkali range: Within ± 1.0 point of the value found to give the best results.

To increase value 1 point (mL): Add 0.2 lb of BONDERITE C-AK 338 Chemical per 100 gal.

The strength of the solution can be obtained from the following table.

Solution Strength Table

lb per 100 gal	oz per gal	Free Alkali Points
3	0.48	3.5
6	0.96	7.0
9	1.44	10.5
12	1.92	14.0
15	2.4	17.5
18	2.88	21.0
25	4.0	30



The cleaning solution strength 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.

Waste Water Treatment:

Applicable regulations covering disposal and discharge of chemical should be consulted and followed. Disposal information for BONDERITE C-AK 338 is given on the Material Safety Data Sheet. The processing bath is acidic. Neutralization of rinse water or processing solution may be required prior to discharge to the sewer. 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 bath may be required prior to disposal.

Precautions:

When handling the chemical products used in this process, the first aid and handling recommendations on the Material Safety Data Sheet should be read, understood, and followed. The processing bath is alkaline and can cause severe burns. Do not take internally. 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 338.

Classification:

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

Hazards identification
Transport information
Regulatory information

Storage:

Recommended Storage Temperature	5 to 40°C
Shelf-life, months	36

If BONDERITE C-AK 338 chemical is a powdered product and does not require special protection in cold weather. The product does contain a strong alkaline constituent which may react violently when mixed with acids. Do not store near acidic materials. The cleaner may absorb moisture. Store in a dry area and keep container closed.

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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Reference 0.0