

# BONDERITE C-IC 243 BR ACID CLEANER

November 2022

## PRODUCT DESCRIPTION

BONDERITE C-IC 243 BR ACID CLEANER provides the following product characteristics:

<b>Technology</b>	Degreaser
<b>Product Type</b>	Degreaser
<b>Application</b>	Aluminium Cans

BONDERITE C-IC 243 BR ACID CLEANER is a single-component concentrated product, which does not require the dosage of fluoride additives in the process.

BONDERITE C-IC 243 BR ACID CLEANER is used in the preparation of an acid bath, suitable for cleaning aluminum cans, in conventional spray cleaning equipment.

BONDERITE C-IC 243 BR ACID CLEANER process efficiently removes lubricants and strain compounds, keeping can surfaces at their original shine.

BONDERITE C-IC 243 BR ACID CLEANER bath retains aluminum dissolved in solution, preventing the formation of hard crust deposits in the tank and heating surfaces. The process is sludge-free.

The BONDERITE C-IC 243 BR ACID CLEANER degreaser bath is adaptable to the use of electronic control equipment BONDERITE E-CO EQUIPMENT-CONTROL (known as LINEGUARD) for automatic bath control and is recommended for use with this process.

## 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.

### Process Description:

1. Prewash
2. Surface preparation with BONDERITE C-IC 243 BR ACID CLEANER
3. Water rinsing
4. Optional treatment BONDERITE M-NT (known as ALODINE) or other treatment.
5. Water rinsing
6. Deionised water rinsing
7. Mobility enhancer application
8. Drying

### Material Compatibility:

BONDERITE C-IC 243 BR ACID CLEANER  
Testing Reagents and Apparatus

### Equipment:

The process tank, housing, pumps and piping for use with the cleaning solution should be constructed of 316L stainless steel. The process and seals and other elastomers that come into contact with the concentrated solution must be EPDM, Teflon™ or Viton™. BONDERITE C-IC 243 BR ACID CLEANER cleaning solution is suitable for use with BONDERITE E-CO EQUIPMENT-CONTROL electronic control equipment for automatic bath control and is recommended for use with this process.

### Operating Data:

Free Acid, ml	8 to 15
Total Acidity, ml	8 to 38
Reaction Product	2.5x Free Acid (maximum)
Temperature, °C	49 to 68
Spray time, sec.	25 to 60

### Bath make-up for 1,000 L:

BONDERITE C-IC 243 BR ACID 3 to 5 L  
CLEANER

### Bath make-up:

- Fill the tank to the operating level with fresh water and for every 1000 L of tank operating volume, add 3 Liters (3.8 Kg) of BONDERITE C-IC 6243 BR.
- The BONDERITE C-IC 243 BR ACID CLEANER cleaner bath must be above 49 °C (120°F) before spraying the solution in order to avoid excessive foaming.

### Bath Control:

The BONDERITE C-IC 243 BR ACID CLEANER bath can be automatically controlled by a BONDERITE E-CO EQUIPMENT-CONTROL controller. Secondary control methods are described when they are used for routine performance checks of BONDERITE E-CO EQUIPMENT-CONTROL equipment and for troubleshooting. The following tests should be performed at least once every 12 hours.

**Free Acid:**

- Pipette 10 mL of bath solution into a clean 250 mL Erlenmeyer flask.
- Add 100 mL of distilled water and 5 to 10 drops of phenolphthalein indicator solution.
- Add ½ teaspoon of Sodium Fluoride with stirring and allow the sample to stand for one minute.
- Titrate with 0.1 N NaOH until the colour turns to pink.
- The volume of 0.1N NaOH titrant solution used is the Free Acidity value.
- To increase the value by 1 point add approximately 1 liter of BONDERITE C-IC 243 BR ACID CLEANER to 1000 liters of bath volume.

**Total Acid:**

- Pipette 10 mL of bath solution into a clean 250 mL Erlenmeyer flask.
- Add 100 mL of distilled water and 5 to 10 drops of phenolphthalein indicator solution.
- Titrate with 0.1N NaOH titrant solution with stirring until a permanent pink color develops.
- The volume of 0.1N NaOH titrant solution used is the Total Acidity value in points.
- Record the points of Total Acid for use in calculating the Reaction Product.

**Activity Control:**

BONDERITE C-IC 243 BR ACID CLEANER is controlled by the free and total acidity of the bath, with the Fluoride control in the process being optional.

The method for measuring the Fluoride Activity of the BONDERITE C-IC 62441 process bath makes use of a standardized Fluoride Ion Electrode and a pH/mV meter.

Immerse the Fluoride Ion Electrode and the reference electrode into the calibrating solution, Standard Solution 120MC. Following the manufacturer's directions, calibrate the meter to read zero on its relative mV channel.

Remove the electrodes from the standard solution, rinse with distilled water and dry.

Cool a sample of the bath to the same temperature as the Standard Solution 120MC used to standardize the meter. Immerse the electrodes into the bath sample and record the meter reading once it has stabilized.

A high mV value indicates low amount of Fluoride in the bath; a low mV value indicates high fluoride in the bath.

**After Degreasing:**

After applying BONDERITE C-IC 243 BR ACID CLEANER in the preparation process, the cans must be rinsed with tap water. Cans can be processed with BONDERITE M-NT layer converter bath or other type of metal surface conditioner or mobility enhancers according to the instructions supplied with the products.

**General Maintenance:**

The BONDERITE C-IC 243 BR ACID CLEANER cleaner process is sludge free and should require no special maintenance. If the Stage 1 prewash becomes heavily laden with oil and metal working coolants it should be overflowed

to minimize contamination of the downstream washer stages.

**Waste Disposal:**

Applicable regulations covering disposal and discharge of chemicals should be consulted and followed. Disposal information for BONDERITE C-IC 243 BR ACID CLEANER is given on the Material Safety Data Sheet. The plant effluent 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.

**Precautions:**

Before handling the chemical products used in this process, the first aid and handling recommendation on the Material Safety Data Sheet for each product should be read, understood and followed.

The processing bath is strongly acidic and can cause irritation of the skin and eyes. Do not get in eyes or on skin or clothing. In case of contact, follow the Emergency and First Aid Procedure recommendations specified in the product's Safety Data Sheet.

Gloves, boots, safety glasses and protective clothing are recommended when handling the product.

**Classification:**

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

**Hazards identification**  
**Transport information**  
**Regulatory information**

**Storage:**

Recommended Storage Temperature, °C            5 to 50  
Shelf-life (in unopened original packaging), 12 months



## 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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