

## BONDERITE C-AK 1580

Known as Ridoline 1580  
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### PRODUCT DESCRIPTION

BONDERITE C-AK 1580 provides the following product characteristics:

<b>Technology</b>	Industrial Cleaner
<b>Product Type</b>	Alkaline Cleaner
<b>Application</b>	Metal Pretreatment

BONDERITE C-AK 1580 is a liquid alkaline cleaner based on borates and phosphates for steel, zinc plated steel and aluminium.

#### Application Areas:

BONDERITE C-AK 1580 is used in spray- and spray/immersion processes.

### TECHNICAL DATA

Density (20°C):	~1.3 g/cm <sup>3</sup>
pH-value (2% in DI water 20°C)	~11.5

### 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:

Fill the tank with warm water, start pumping and add for a volume of 1,000 L:

BONDERITE C-AK 1580      23.1 to 53.8 L = 30 to 70 kg

#### Operating Data:

Adjusting the following parameters could be necessary depending on the line conditions.

Free alkalinity	2.55 to 5.95 mL
Temperature	50 to 60°C
Duration of treatment	1 to 10 min
Spray pressure	0.8 to 2.0 bar

#### Bath Control:

BONDERITE C-AK 1580 solution is controlled by the titration of free alkalinity and dissolved aluminum concentration.

#### Free alkalinity (FA):

Feed, mL	10 mL
Titrant:	0.1 N hydrochloric or 0.1 N sulphuric acid
End point:	pH 8.5

- Cool down bath solution to room temperature and pipette 10 mL bath solution into a clean 300 mL Erlenmeyer-flask.
- Add 50 mL deionized water and 4 to 5 drops phenolphthalein indicator (0.3 % hydro-alcoholic solution).
- Titrate the solution with 0.1 N hydrochloric or 0.1 N sulphuric acid until the color turns from pink to colorless (pH 8.5).
- The consumption of 0.1 N hydrochloric or 0.1 N sulphuric acid in mL is the free alkalinity.

Acid consumption = **A mL**

#### Measuring Al concentration:

- After titration add to the same solution appr. 5 g solid NaF or KF and stir solution until it has completely dissolved. If aluminum is present the solution will again show a red-violet color.
- Then titrate in the same way like before to pH 8.5.
- Again NaF or KF is added to make sure that all aluminum has been titrated. The solution should stay colorless otherwise titrate again as described.

Acid consumption = **B mL**

#### Calculation:

- $B \times 0.09 = \text{Al-concentration in g/L}$
- $1.2 \times (A - B/3) = \% \text{ BONDERITE C-AK 1580}$

#### Replenishing:

For each lacking "Free Alkalinity" point in a bath volume of 1000 L add:

BONDERITE C-AK 1580      9.0 L = 11.8 kg



**Classification:**

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

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

**Storage:**

Recommended Storage Temperature	0 to 40°C
Shelf-life, months (in unopened original packaging)	12

**ADDITIONAL INFORMATION****Disclaimer**

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Reference 0.3