

## BONDERITE C-AK 1565-1

Known as Ridoline 1565-1  
June 2017

### PRODUCT DESCRIPTION

BONDERITE C-AK 1565-1 provides the following product characteristics:

<b>Technology</b>	Industrial Cleaner
<b>Product Type</b>	Alkaline Cleaner
<b>Application</b>	Metal Pre-Treatment

BONDERITE C-AK 1565-1 is a liquid alkaline cleaner based on borate and phosphate for steel, zinc plated steel and aluminium.

### Application Areas:

BONDERITE C-AK 1565-1 is used in spray- and spray/immersion processes. It must be combined with a suitable cleaning booster.

### TECHNICAL DATA

Density ~1.51 g/cm<sup>3</sup>  
pH-value (1% in DI water 20°C) ~12

### 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:

Depending on the substrate, make-up will be done with BONDERITE C-AK 1565 A or BONDERITE C-AK 1565-1.

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

#### Zinc plated steel and aluminium:

BONDERITE C-AK 1565 A 7.1 to 35.5 L= 10 to 50 kg  
Cleaning booster depends on requirements

To avoid strong etching on sensitive surfaces, max. pH-value should be 11.2 (25°C). If higher, you have to add BONDERITE M-AD 100 to decrease pH-value.

#### Steel:

BONDERITE C-AK 1565-1 6.6 to 33.2 L= 10 to 50 kg  
Cleaning booster depends on requirements

#### Operating Data:

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

#### Total alkalinity:

BONDERITE C-AK 1565 A 4.0 to 20.0 mL  
BONDERITE C-AK 1565-1 5.5 to 27.5 mL

#### Free alkalinity:

BONDERITE C-AK 1565 A 2.7 to 13.5 mL  
BONDERITE C-AK 1565-1 4.4 to 22.0 mL

Temperature 50 to 80°C  
Duration of treatment 1 to 5 min  
Spray pressure 0.8 to 2.0 bar

#### Bath Control:

BONDERITE C-AK 1565-1 solution is controlled by the following analysis:

#### Titration of total alkalinity:

Feed, mL 10 mL  
Titrant: 0.1 N hydrochloric or 0.1 N sulfuric acid  
End point: pH 3.6  
Indicator: bromecresolgreen (0.1 % alcoholic solution)

- 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.
- Add 4 to 5 drops of indicator.
- Titrate the solution with 0.1 N hydrochloric or 0.1 N sulfuric acid.
- The endpoint will be shown by a colour change from blue to yellow (pH: 3.6).
- The consumption of 0.1 N hydrochloric or 0.1 N sulfuric acid in mL is equal to the points of total alkalinity

**Titration of free alkalinity:**

Feed, mL	10 mL
Titrant:	0.1 N hydrochloric or 0.1 N sulfuric acid
End point:	pH 8.5
Indicator:	phenolphthaleine (0.1% alcoholic solution)

- 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.
- Add 4 to 5 drops of indicator.
- Titrate the solution with 0.1 N hydrochloric or 0.1 N sulfuric acid.
- The endpoint will be shown by a color change from pink to colorless (pH: 8.5).
- The consumption of 0.1 N hydrochloric or 0.1 N sulfuric acid in mL is equal to the points of free alkalinity

**Replenishing:**

Replenishing is to be done with BONDERITE C-AK 1565-1, irrespective of the substrates to be treated. For each missing point for a volume of 1,000 L add:

Total alkalinity	1.2 L = 1.8kg
Free alkalinity	1.5 L = 2.3kg
Cleaning booster	depends on requirements

**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	18months

**ADDITIONAL INFORMATION****Disclaimer****Note:**

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.

**In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:**

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

**In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:**

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. 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.

**In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:**

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

**Trademark usage:** [Except as otherwise noted] All trademarks in this document are trademarks and/or registered trademarks of Henkel and its affiliates in the U.S. and elsewhere.

Reference 0.4