

**BONDERITE C-AK 2105 IT**Known as Ridoline 2105 IT  
August 2021**PRODUCT DESCRIPTION**

BONDERITE C-AK 2105 IT 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 2105 IT is a liquid alkaline, silicate and surfactants free compound studied for the etching of aluminium and its alloys. It contains high amount of chelating and dispersing agents so that its action leads to a strong but even and uniform aluminium etching without formation of sludges and scales. BONDERITE C-AK 2105 IT is used in bath by spray and immersion as well as in aqueous solutions.

**Application Areas:**

When used as etchant in aluminium pre-painting cycles BONDERITE C-AK 2105 IT is able to dissolve the alloying elements from aluminium surface, and therefore increase its chemical resistance to chemical corrosion.

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**TECHNICAL DATA**

Density (20°C), g/cm<sup>3</sup> 1.445

**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:**

Add BONDERITE C-AK 2105 IT slowly to the preheated water while stirring (40 to 50°C). The complete dissolution of the powder cleaner has to be achieved before the bath is used. After degreasing, a water-rinse of the parts is necessary before any subsequent surface treatment.

Concentration 0.5 to 1.5 %

**Operating Data:**

Temperature °C: 50 to 65  
Duration of treatment, min 1 to 10

**Bath Monitoring:**

BONDERITE C-AK 2105 IT solution is controlled by free alkalinity

Feed, mL 10  
Titrant: 0.1 N hydrochloric or 0.1 N sulfuric acid  
End point pH-value 8.5  
Indicator Phenolphthalein

- Pipette 10 ml cooled (20°C) working bath into a 250 ml flask.
- Add 50 mL of DI water and 3 to 4 drops of Phenolphthalein Indicator (0.3% hydro-alcoholic solution).
- Titrate the solution with 0.1 N hydrochloric or 0.1 N sulfuric acid.
- The endpoint will be shown by a colour change from pink to colourless (pH-value: 8.5).
- The 0.1 N HCl ml used for the titration is the A value
- To the same sample add few grams of Potassium or Sodium Fluoride (NaF or KF) crystals.
- If dissolved Aluminium is in the bath, the colour turns to pink.
- In this case titrate with 0.1N HCl until the solution turns to colourless; add again NaF or KF Crystal and in case of pink colour development, Keep on titrating with 0.1N HCl; repeat again until the Addition of NaF or KF do not turn the colour to pink anymore.
- "B" value is the total number of 0.1N HCl used for the titrations after NaF/KF addition
- BONDERITE C-AK 2105 IT concentration (%) =  $A - (B/3) \times 0.18$
- Dissolved Aluminium (g/l)\* =  $B \times 0.09$
- **\*Note:** when the Al concentration gets higher than 20 g/l, the bath has to be discharged.

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

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

**Storage:**

Recommended Storage Temperature	-10 to 40°C
Shelf-life, months (in unopened original packaging)	36

**ADDITIONAL INFORMATION****Disclaimer**

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Reference 0.3