

BONDERITE C-IC 241

Known as Ridoline 241

January 2016

PRODUCT DESCRIPTION

BONDERITE C-IC 241 provides the following product characteristics:

Technology	Industrial Cleaner
Product Type	Acidic Liquid Cleaner
Application	Aluminium

BONDERITE C-IC 241 is a one pack liquid acid product studied for spray or dip cleaning / deoxidizing / brightening treatments of Aluminium. The product is characterized of an excellent capacity to remove any sludge, lubricants, oxides restoring the original brightness of the surface.

BONDERITE C-IC 241 contains strong complexing/stabilizers for dissolved Aluminium, so that no hard sludge or strongly adherent scale forms on the heaters or on the surface.

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.

Application:

BONDERITE C-IC 241 is used in spray or dip pretreatment cleaning cycles for aluminium pieces before the conversion coating phase. The average working parameters are:

	Immersion / Spray
Concentration	3 to 5% v/v / 1 to 3% v/v
Free Acid value	10.5 to 17.5 / 3.5 to 10.5
Temperature	25 to 60°C / 40 to 60°C
RP	max 15 / max 10

Bath make-up:

- Fill the tank up to 2/3 of the final volume with clean tap water.
- Activate the recirculation pumps and heat to working temperature
- Add the required amount of BONDERITE C-IC 241 according to the type of application.
- Add water to bring the bath to the final volume and heat to operating temperature. Let recirculate for 15 to 20 min.
- Make the controls.

Bath Control:

BONDERITE C-IC 241 solution is controlled by the titration of free acid:

Titration of free acid:

- Pipette a 5 ml sample into a 250 ml beaker.
- Add 3 to 5 drops of Bromophenol indicator.
- Titrate the solution with 0.1 N sodium hydroxide.
- The endpoint will be shown by a colour change from colourless to pink.
- The ml of 0.1 N NaOH used for the titration is the F.A. value of the bath.
- A standard bath prepared at 10 g/l concentration should have a value of 3.5 ml.

Determination of Reaction Products:

- Pipette 5 ml of working bath into a 250 ml flask.
- Add 3 to 5 drops of Phenolphthalein indicator.
- Titrate with 0.1 N NaOH.
- The endpoint will be shown by a colour change from colourless to pink.
- Add 1 to 2g Sodium Fluoride crystals (NaF).
- If the pink colour becomes more intense it means dissolved Aluminium is still present in the bath.
- Keep on titrating with 0.1 N Hydrochloric Acid (HCl) until the colour disappears.
- The ml of 0.1 N HCl used for this second titration is the RP Value.

Replenishing:

The bath is replenished according to the Free Acid value of the solution. Add 3.7 kg (3.1 l) of BONDERITE C-IC 241 for each missing point and for each 1,000 l of bath.

The bath of BONDERITE C-IC 241 can be easily monitored with automatic devices.

The age level of the bath is monitored by determination of RP value that must be maintained under 10 to 15 ml. HENKEL Technical Service will suggest the appropriate actions for the bath managing according to the specific application.

Caution:

In case of oil formation on the surface, it is recommended to carry out a partial overflow of the solution in order to keep it free from contamination.

Tanks and all parts of the plant in contact with the concentrated product must be made or coated with anti-acid material (PVC or polythene are recommended). The part of the plant in contact with the product in solution (tanks, conveyors, etc.) can be made of stainless steel 316L.

Slight differences in the product appearance do not affect its efficiency or performances.

Classification:

Please refer to the corresponding **Material Safety Data**

Sheets for details on:

Hazardous Information

Transport Regulations

Safety Regulations

Storage

Recommended Storage Temperature, °C	0 to 35
Shelf-life, months	36
Frost-sensitive	yes

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.

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