

**BONDERITE C-IC 241**Known as Ridoline 241  
May 2017**PRODUCT DESCRIPTION**

BONDERITE C-IC 241 provides the following product characteristics:

<b>Technology</b>	Industrial Cleaner
<b>Product Type</b>	Acidic Liquid Cleaner
<b>Application</b>	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 **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 Bromcresol green indicator.
- Titrate the solution with 0.1 N sodium hydroxide.
- The endpoint will be shown by a colour change from yellow to green/blue.
- 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 sodium hydroxide.
- The endpoint will be shown by a colour change from colorless 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:**Hazards identification****Transport information****Regulatory information****Storage:**

Recommended Storage Temperature, °C 0 to 35

Shelf-life, months 36

Frost-sensitive yes

**ADDITIONAL INFORMATION****Disclaimer**

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