

BONDERITE C-IC 417

Known as Ingopur 417
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PRODUCT DESCRIPTION

BONDERITE C-IC 417 provides the following product characteristics:

Technology	Industrial Cleaner
Product Type	Acid Cleaner
Application	Deoxidation

BONDERITE C-IC 417 is an acidic liquid product composed of phosphoric acid and surfactants.

BONDERITE C-IC 417 is used as a deoxidiser and cleaning agent with startup protection in the printed circuit board (PCB) industry.

Application Areas

- Prior to the application of electro or etch resistant or solder masks.
- In addition, BONDERITE C-IC 417 can be used for the brown oxidation.

Special features

1. Each photo layer or screen printing ink adheres excellently on the metal surface treated with BONDERITE C-IC 417.
2. Very good cleaning, degreasing and removal of organic residues.
3. Excellent de-oxidation and removal of inorganic residues.
4. BONDERITE C-IC 417 has a very good start-up protection when applied above 40°C, so that a metal surface treated with it does not show start-up even after a long time.
5. BONDERITE C-IC 417 is very good for cleaning prior to the application of any kind of solder mask, especially suitable for photo-sensitive masks.
6. BONDERITE C-IC 417 acts as a bonding agent between photo layer or screen printing ink and metal.
7. BONDERITE C-IC 417 is designed for alkaline-soluble screen printing inks and photo resists and cleans thus printed metal surfaces excellently, without any resist or attack on the metal.

TECHNICAL DATA

Appearance	colorless liquid
Density	1.3 g/mL
pH (10 % solution)	approx. 1.0
Cold stability	up to approx. -23°C

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.

Plant Material:

An attack does not take place on the commonly used machine parts (e.g. PVC, Polypropylene, Stainless Steel, EPDM or titanium).

Operating Parameters:

Concentration	8 to 10 % volume
Temperature	40 to 50 °C
Treatment Time	at least 10 sec.

Subsequent treatment:

Rinse shortly (approx. 10 sec.) with clean water. Too much rinsing will remove the start-up protection. Depending on the type of reprocessing, dry immediately.

Concentration Determination:

1. 10 mL of the solution to be measured are diluted with 50 mL of water, the add 3 to 5 drops of phenolphthalein indicator.
2. Titrate with 1N base until the color changes.
3. Titrate 50 mL of plant water as described above and subtract the consumption from the value reached under 2.
4. Calculation:
Consumed mL x factor 1.22 = concentration in g/L.

Additional Technical Information:

BONDERITE C-IC 417 may also be used in a small electroplating system.

Waste Water Treatment:

Neutralization is possible e.g. with lime milk. The simultaneous precipitation of calcium phosphate can lead to a significant reduction in the phosphate content in the waste water.

Caution:

Causes burns. The rules for working with acid must be observed. After contact with skin, rinse thoroughly with water. In case of contact with eyes consult a physician.

Storage

Recommended Storage Temperature, °C	0 to 40
Shelf-life, months (in unopened original packaging)	24

Classification

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

Sheets for details on:

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

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

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