

# PROCIRC 9870

## SOLDER CONDITIONER

### INTRODUCTION

Procirc 9870 Solder Conditioner is used as a post etch process prior to IR or hot oil fusing to clean tin / lead plated surfaces and exposed copper. Poor conditioning at this stage can lead to poor reflow causing voids and / or holes at track edges that can lead in turn to failure of the board in service. Procirc 9870 does not contain thiourea, and offers significant benefits regarding ease of disposal.

### BENEFITS

Contains no thiourea and fluoborates.

Removes etch residues and oxidation completely ensuring bright even fusing.

Cleans exposed copper - ensuring good edge coverage.

Long life ensures high area throughput and minimum solution changes.

### SOLUTION MAKE-UP

Procirc 9870 Solder conditioner      50% v/v aqueous.

### OPERATING DATA

Concentration	50% v/v in water.
Temperature	20 - 30 deg C.
Time	Typical values: Spray 0.5 - 1.5 mins Dip 1 - 4 mins
Extraction	Recommended.

## **EQUIPMENT**

Tanks	Polypropylene, polythene or PVC.
Heaters	PTFE immersion heaters with thermostatic control.
Jigs	Use plastic or plastic coated jigs or racks for board support.

## **INSTALLATION**

It is essential that the tanks to be used for Procirc 9870 are thoroughly cleaned and leached before any product is introduced.

If in any doubt as to the cleaning procedure please contact PMD (UK) Limited Technical Department.

1. Half fill clean empty tank with DI water
2. Add Procirc 9870 and mix
3. Heat to operating temperature

## **PROCESS SEQUENCE**

1. Procirc 9870 Solder Conditioner
2. Rinse
3. Dry

## **MAINTENANCE AND CONTROL**

The solution should be analysed regularly and replenished as necessary. (See analysis methods).

The solution should be discarded and a fresh one made up when it fails to brighten in an acceptable time.

## **ANALYSIS METHOD**

### Reagents

1N sodium hydroxide (standard volumetric solution)  
Methyl red indicator

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### Method

1. Pipette 10.0ml sample of the solution into a 500ml conical flask.
2. Add 2 - 3ml of methyl red indicator.
3. Titrate with 1N sodium hydroxide to a yellow end point.
4. Record titre = t mls

#### Calculation

$t \times 3.7 = \% \text{ concentration of Procirc 9870}$

#### Replenishment

For every 1% low add 10ml/L Procirc 9870

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### **DISPOSAL**

Dispose of in accordance with local authority requirements.

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### **PRODUCT FAMILIES**

The following products are referred to in this data sheet.

<u>Product Name</u>	<u>Product Number</u>
Procirc 9870 Solder Conditioner	987014

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