

# PMD (UK) LTD PROCESS DATA

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9010-06/02  
ISSUE 5  
PREV 4

## PROCIRC 9010 CLEANER/CONDITIONER

### INTRODUCTION

Procirc 9010 cleaner/conditioner is an effective, multi-use spray cleaner for copper. It is a low foam product which can be used in all stages of pcb manufacture.

It is formulated to be a neutral pH, non-chloride, non-etching and free rinsing cleaner which can be used on flexible circuits.

### BENEFITS

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|------------------------|---|
| Neutral pH             | No degradation of dry film resists.<br>Useful for use on flexible circuits. |
| High Detergency        | Excellent cleaning.   |
| Removes tarnish.       |   |
| Low Foam Formulation   | Sprayable.  |
| Non Etching to Copper. |   |
| Free Rinsing.          |   |
| Liquid Concentrate     | For easy make-up and economy.   |

### SOLUTION MAKE-UP

Procirc 9010 cleaner/conditioner	50% v/v with water.
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### OPERATING DATA

Temperature	20 - 50 deg C
Time	1 - 3 minutes
Extraction	Recommended

## **EQUIPMENT**

<u>Tanks</u>	Polypropylene, Polyethylene, Unplasticised PVC, Stainless Steel, Titanium.
<u>Heaters</u>	PTFE, Teflon Coated, Stainless Steel or Titanium, all with thermostatic control.

If in any doubt as to the compatibility of equipment consult PMD (UK) Limited Technical Department.

## **INSTALLATION**

It is essential that the tanks to be used for Procirc 9010 cleaner/conditioner are thoroughly cleaned and leached before any product is added.

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

1. Fill the clean empty tank with the appropriate volume of water.
2. Add the Procirc 9010 cleaner/conditioner and mix thoroughly.
3. Heat to operating temperature.

## **PROCESS SEQUENCE**

1. Clean in Procirc 9010 cleaner/conditioner.
2. Rinse.
3. Rinse.
4. Continue dependent upon application.

## **MAINTENANCE AND CONTROL**

The solution should be regularly analysed and replenished as necessary.

Evaporation losses should be replaced using water.

Concentration losses should be replaced with Procirc 9010 cleaner/conditioner.

## **ANALYSIS METHODS**

### Procirc 9010 Cleaner/Conditioner Concentration

#### Reagents

0.1N Iodine Solution	(Standard Volumetric Solution)
0.1N Sodium Thiosulphate	(Standard Volumetric Solution)
1.0N Hydrochloric Acid	(Standard Volumetric Solution)
Iodine Indicator	

#### Method

1. Pipette 1 ml of working solution into a 250 ml conical flask.
2. Pipette 50 ml of 0.1N Iodine solution into the flask and mix thoroughly.
3. Add 10 ml of 1.0N Hydrochloric Acid to the flask and mix thoroughly.
4. Add approximately 100 mls water and mix thoroughly.
5. Titrate with 0.1N Sodium Thiosulphate to a clear end-point using iodine Indicator.
6. Record titre = t mls.

#### Calculation

$(50 - t) \times 3.150 = \% \text{ v/v Procirc 9010 Cleaner/Conditioner.}$

#### Replenishment

For every 1% drop in concentration, add 10 mls/Litre Procirc 9010 to the working solution.

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## **DISPOSAL**

Dispose in accordance with local authority requirements.

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## **PRODUCT FAMILIES**

The following products or product families are referred to in this data

sheet:-

Product Name

Product Number

Procirc 9010 Cleaner/Conditioner

901003

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