



ELECTRONIC MATERIALS
PACKAGING AND FINISHING TECHNOLOGIES

NEUTRALIZER PM-956

For Industrial Finishing Applications

DESCRIPTION

Neutralizer PM-956 is an acidic solution which is used as the second step in the Addiposit™ IV pretreatment process for plateable grades of liquid crystal polymers. When used after the rinse following Conditioner PM-925, this solution removes any residues remaining on the substrate and prepares the surface for further treatment.

ADVANTAGES

- Excellent removal of conditioner residues
- Simplicity of make-up and replenishment
- Low cost
- Consistent, predictable performance
- Reduced skip plating

BATH MAKE-UP

Chemicals required	Metric	(U.S.)
Deionized water	750 ml/l	(75% v/v)
Neutralizer PM-956	200 ml/l	(20% v/v)

MAKE-UP PROCEDURE

1. Add deionized water to a clean tank.
2. Add Conditioner PM-956 and mix thoroughly.
3. Dilute to working volume.

BATH OPERATION

Immersion time: 5 minutes

Temperature: Ambient

Rinsing: Thorough rinsing is recommended

BATH MAINTENANCE

Maintain bath volume with deionized water.

The bath's activity is controlled by maintaining the normality of the working solution at 0.6N.

NORMALITY CONTROL PROCEDURE

I. Principle

A sample is titrated to a phenolphthalein end point with sodium hydroxide.

II. Equipment

- a) 20 ml pipette
- b) 250 ml Erlenmeyer flask
- c) 50 ml burette

III. Reagents

Phenolphthalein indicator, 0.1% in ethanol

IV. Titrant

Sodium hydroxide, 1.00N, standardized

V. Procedure

- a) Pipette 20 ml of Neutralizer PM-956 bath into a 250 ml Erlenmeyer flask and dilute to 100 ml with DI water.
- b) Add 10–15 drops of Phenolphthalein indicator solution and titrate with 1.00N NaOH solution to the first pink end point.

VI. Calculation

$$\text{Normality PM-956} = \frac{\text{ml titrant} \times \text{N titrant}}{\text{aliquot (20 ml)}}$$

Maintain the normality of the working bath at 0.6N. To raise the normality of the bath 0.1N, add 3.3% by volume Neutralizer PM-956 concentrate.

NEUTRALIZER PM-956

PRODUCT DATA

Neutralizer PM-956

Color: Water-white liquid
 pH: <1.0
 Specific gravity: 1.05 (approx.)

EQUIPMENT

Tank and Plumbing:	PVC, PVDF, CPVC, polyethylene, polypropylene and Teflon are suitable construction or lining materials
Racks:	PVC plastisol coated; or 316 stainless steel can be used if mild corrosion is acceptable
Heaters:	Quartz or Teflon-coated
Filtration:	A 25 micron polypropylene cartridge is recommended
Ventilation:	Recommended
Agitation:	Mild mechanical agitation is recommended

HANDLING PRECAUTIONS

Before using this product, consult the Material Safety Data Sheet for details on product hazards, recommended handling precautions and product storage.

CAUTION! When using immersion heaters, failure to maintain proper volume level can expose tank and solution to excessive heat resulting in a possible combustion hazard, particularly when plastic tanks are used.

STORAGE

Store Neutralizer PM-956 only in upright, original containers in a dry area between 10–32°C (50–90°F). Store away from alkaline materials. Do not store in sunlight. Store away from heat and sources of ignition. Keep container sealed when not in use.

WASTE TREATMENT

Neutralizer PM-956 is an acidic, non-chelated solution. Waste treatment is by neutralization with caustic to discharge pH limits. A used bath may be treated according to Rohm and Haas Electronic Materials Waste Treatment Procedure WT 91-1. It is the user's responsibility to verify that treatment procedures comply with federal, state and local regulations. Contact your Rohm and Haas Electronic Materials Technical Representative for more information.

Due to the nature of Neutralizer PM-956, disposal of it, or residues therefrom, should be made in compliance with federal, state and local environmental regulations.

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