



ULTRASTRIP 218P

Resist Stripper

Product Code: 186824

DESCRIPTION

Ultrastrip 218P Resist stripping system is designed to strip fully aqueous dry film photoresists from printed circuit boards. Its unique blend of components promotes a high strip rate, easily filterable particles, and complete removal of dry film residues and adhesion promoters, even under overplated circuits. **Ultrastrip 218P** contains no caustic, so it will not attack coper, tin or tin-lead. It has a powerful anti-tarnish package or prevent copper oxidation. Ultrastrip 218P does not contain glycol ethers or any other solvent.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

Features	Benefits	
Fast stripping rate	High line speeds	
Embedded Defoamer	Reduce or Eliminate Defoamer Adds	
Contains no caustic	No tin or copper attack	
Solvent free	Ease of waste treatment	
Uniform strip rate	Easy, consistent operation	
Clean, untarnished copper left	No interference with clean etching	
Breaks most film into particles	Easy filtration to lengthen bath life	
Minimal Odour	No complaints about "dead fish" smell	



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PHYSICAL PROPERTIES

Property	Typical Value	
Appearance	Clear to cloudy yellow solution	
Odour	Slight amine	
Flash Point	121°C (250°F)	
Freezing temperature	-15°C (5°F)	
Storage temperature	37-38°C (100°F) maximum	
рН	12.7	

MAKE UP PROCEDURE

Clean equipment per MacDermid Enthone Technical Service recommendations.

Add required amount of DI water

Add required amount of ultrastrip 218P

Heat to operating temperature. If MacDermid Anti foam is used, do not turn spray/recurculation pumps on until solution has reached at least 28°C

Ultrastrip 218P 4-15%* by volume Water Balance

EQUIPMENT

Tanks

Stainless steel, polyethylene, polypropylene, PVC

Heaters

Stainless steel, Teflon, titanium

Filtration Required

Micron size of media varies according to specific dry film recommendations

Ventilation

Required.

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^{*}Make up concentration of Ultrastrip 218P varies according to application. Consult you Macdermid Enthone representative for specific recommendations.





OPERATING PARAMETERS

Parameter	Range	Optimum
Temperature	50-65°C (104-149°F)	
Time	As required to strip specific resist	

SOLUTION MAINTENANCE

Ultrastrip 218P can be run to exhaustion without replenishment and discarded when the stripping time becomes excessive. Alternatively, it can be run with replenishment or in the feed and bleed mode. Replenishment can be based on pH (all pH measurements should be made at room temperature), range depends upon make up; or can be based on the following titration for total alkalinity.

A. Reagents

- 1. 0.1N HCl
- 2. Bromcresol Green (0.05% in methanol)
- 3. Methyl Red (0.05% in methanol)

B. Procedure

- 1. Pipette a 1.0 mL sample into a 250 mL Erlenmeyer flask
- 2. Add 100 mL DI water and 6 drops of each indicator.
- 3. Titrate with 0.1N HCl from a green to an orange-pink endpoint.

C. Procedure (alternative)

- 1. Pipette a 1.0 mL sample into a 250 mL Erlenmeyer flask
- 2. Add 100 mL DI water and 6 drops of each indicator.
- 3. Using a pH meter, titrate with 0.1N HCl to pH 4.0.

D. Calculation

 $mL HCI \times N HCI = N of operating solution.$

Ultrastrip 218P is 10N; a 10% solution is 1.0 N; a 20% solution is 2.0 N

E. Maintenance

Replenish with Ultrastrip 218P concentrate to maintain desired normality.

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TECHNICAL DATA SHEET

SAFETY & WARNING

MacDermid Enthone recommends that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use.

Safety Data Sheets are available from MacDermid Enthone.

WASTE TREATMENT

Prior to using any recommendations or suggestions by MacDermid Enthone for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.

ORDER INFORMATION

Product	Code
Ultrastrip 218P Resist Stripper	186824
Antifoam 2	179109

CONTACT INFORMATION

To confirm this is the most recent issue, please contact MacDermid Enthone

macdermidenthone.com/electronics

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency directory assistance: Chemtrec 1 - 800 - 424 - 9300.

DISCLAIMER: All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. No statement or recommendation shall constitute a representation unless set forth in an agreement signed by officers of seller and manufacturer. NO WARRANTY OR MERCHANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. The following warranty is made in lieu of such warranties and all other warranties, express, implied, or statutory. Products are warranted to be free from defects in material and workmanship at the time sold. The sole obligation of seller and manufacturer under this warranty shall be to replace any product defective at the time sold. Under no circumstances shall manufacturer or seller be liable for any loss, damage or expense, direct or consequential, arising out of the inability to use the product. Notwithstanding the foregoing, if products are supplied in response to a customer request that specifies operating parameters beyond those stated above, or if products are used under conditions exceeding said parameters, the customer by acceptance or use thereof assumes all risk of product failure and of all direct, indirect and consequential damages that may result from use of the products under conditions, and agrees to exonerate, indemnify and hold harmless MacDermid Incorporated and its affiliates therefrom. No suggestion for product use nor any such infringement.

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