

ALPHA[®] COPPERBRITE 48 E-1

Industrial Chemical for Copper Surface Treatment

DESCRIPTION

ALPHA COPPERBRITE 48 E-1 is an acidic chemical used for micro-etching, copper oxides removal and light oils removal from copper surfaces. The following are typical processes where **ALPHA COPPERBRITE 48 E-1** will be highly effective.

- Prior to dry-film lamination
- Prior to screen printing primary image ink
- Prior to screen printing solder resist
- Prior to thru-hole copper or tin-lead plating
- Prior to applying solderable protective coating
- Prior to roll tinning
- Prior to solder coating & Hot Air Leveling

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

APPLICATION GUIDELINES

Solution Make Up: A typical working solution is a one to one volume mixture of ALPHA COPPERBRITE 48 E-1 and water. Solution temperatures will accelerate the cleaning action.

Rinsing: Spray rinsing with heated water is necessary to thoroughly remove the solubilized residues and the ALPHA COPPERBRITE 48 E-1 mixture. For critical cleanliness levels, testing for ionic contamination is recommended to verify sufficient water rinsing. Ionic contamination can be effectively measured with ionic contamination testers available in the market.

Control: IPC Edge Dip Solderability testing can be used to determine the effectiveness of an ALPHA COPPERBRITE 48 E-1 bath to produce acceptable solderability on copper surfaces. Poor solder wetting indicates the ALPHA COPPERBRITE 48 E-1 bath is spent and should be replaced.

Equipment: Soak tanks, racks and holding fixtures should be made of chemically resistant plastic or coated metals suitable for containing acid solutions at 50 °C (122 °F). Tank heaters in contact with solutions should be acid-proof (i.e. titanium or quartz).

TECHNICAL DATA

| Item | Typical Values | Item | Typical Values |
|-------------------------------------|------------------------------|-----------------------------------|----------------|
| Appearance | Clear, Pale Yellow Liquid | Flash Point (T.C.C.) | None |
| Specific Gravity @ 25 °C (77 °F) | 1.165 ± 0.005 | Shelf Life (from Date of Mfg.) | 540 days |
| Acid Number, mg KOH/g | 237.00 ± 20.00 | Pounds per Gallon | 9.7 |
| % Halide | 7.67 ± 0.50 | Packaging Size | 5 gallons |

SAFETY & WARNING

It is recommended 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 at MacDermidAlpha.com/assembly-solutions/knowledge-base**

CONTACT INFORMATION

To confirm this document is the most recent version, please contact
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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 safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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