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MacDermid Alpha ELECTRONICS SOLUTIONS

TECHNICAL DATA SHEET

ALPHA® 856

Neutral OA Water Soluble Flux

DESCRIPTION

ALPHA 856 is formulated for defect-free soldering in processes employing water cleaning. It has a buffered activation system containing no free acid and has a neutral pH. Its post-soldering residues are also non-acidic.

ALPHA 856 is a low-smoking, efficient foam flux. Using moderate air flow rates, its fine-bubble foam head is fast breaking and recovers rapidly for effective coverage at high production speeds. This highly active flux will produce bright, shiny connections, even if cleaning is delayed for a couple of hours. Flux residues remain water soluble, and no corrosion products are visible.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

APPLICATION GUIDELINES

Thinning: The consistency of ALPHA 856 should be maintained by the addition of thinner to compensate for evaporation losses. It is recommended that the specific gravity @ 25 °C / 77 °F be maintained between 0.822 and 0.842 by the addition of thinner. Only ALPHA 425 thinner should be used for this purpose to ensure consistency of flux foaming and soldering characteristics.

Residue Removal: Cleanliness of PCBAs processed with ALPHA 856 show good efficiency with hot DI water temperature set at 35 to 40 °C; for extended range the max temperature is ~60 °C. It is mandatory to rinse with hot DI water temperature set at 50 to 60 °C to get very low level of ionic contamination and reduce ΔT followed by drying step in oven. The flux is formulated so that the cleaning process water effluent is completely biodegradable. To avoid the risk of corrosion, residues should be thoroughly cleaned, preferably, immediately or not beyond four hours after processing.

The water effluent is neutral, eliminating the need for pH adjustment prior to disposal. However, local regulations may require pretreatment to remove dissolved lead from the water effluent.

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Item	Typical Values	Item	Typical Values
Appearance	Colorless to Pale Yellow Liquid	Flash Point (T.C.C.)	17 °C (62 °F)
Specific Gravity @ 25 °C (77 °F)	0.832 ± 0.005	Shelf Life (from Date of Mfg.)	720 days
% Non-volatiles	15	IPC J-STD-004 Designation	ORH1
pH (5% Solution)	6.6	Packaging Size	1, 5, and 55 gallons
% Halide (as Chloride)	2.33 ± 0.23		

RECYCLING SERVICES

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area.



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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.**

CONTACT INFORMATION

www.macdermidalpha.com

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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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