

# ALPHA<sup>®</sup> RF-800H

## No-Clean Flux

### DESCRIPTION

**ALPHA RF-800H** is a medium solids, no-clean flux formulated with a small percentage of rosin and organic activators. This unique rosin-activation system promotes excellent solder wetting to protect copper and solder coated surfaces.

Post soldering residue of **ALPHA RF-800H** is minimal, slightly glossy and can be pin tested without removal.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

### APPLICATION GUIDELINES

ALPHA RF-800H is formulated to be applied with foam, wave, spray and mist fluxers. Flux deposition density and uniformity are critical to successful use of no-clean flux. Applying ALPHA RF-800H to a dry flux coating density of 500 to 1500 micrograms per square inch is recommended. Preheating the circuit assembly will partially dry the flux, enhance oxide removal and promote optimum wicking as well as superior solder joint formation. Degree of preheat is dependent on many variables; such as conveyor speed, type of components and substrates. Entering the solder wave with a top-side temperature of 88 to 115 °C (190 to 240 °F) and a bottom side temperature of 121 to 163 °C (250 to 325 °F) is typical.

**Control:** The foam applicators should be supplied with compressed air, free of oil and water. Maintain flux level sufficiently above the aerator stone to produce adequate foam height. Adjust air pressure to produce optimum height with foam consisting of uniform bubbles.

In time, debris and contaminants will accumulate in recirculating type flux applicators. For consistent soldering performance, dispose of spent flux periodically. After emptying use flux, the reservoir and applicator should be thoroughly cleaned with flux thinner. Refill reservoir with fresh flux and allow a few minutes to stabilize before resuming soldering operation.

Although ALPHA RF-800H is designed to be left on the board, if desired, post soldering residues can be removed with ALPHA 2110 Saponifier.

**Thinning:** ALPHA RF-800H may thicken because of solvent loss due to solvent evaporation in the fluxer, especially applied by foaming. To restore material to its original solids %, ALPHA 425 Thinner should be added. For this purpose, the solids % should be monitored by checking the acid number with Alpha Titration Kit #3. From the acid number, one can calculate the % evaporation and then obtain the amount of thinner to be added.

**TECHNICAL DATA**

Item	Typical Values	Item	Typical Values
Appearance	Clear, Pale Yellow Liquid	Flash Point (T.C.C.)	17 °C (62.6 °F)
Solids Content, % wt/wt	4%	Recommended Thinner	ALPHA 425
Specific Gravity @ 25 °C (77 °F)	0.799 ± 0.005	Shelf Life (from Date of Mfg.)	540 days
Acid Number, mg KOH/g	16.00 ± 1.60	Packaging Size	5 gallons
Halide, %	0.012 ± 0.001	IPC J-STD-004 Designation	ROL1

**CORROSION & ELECTRICAL TESTING**
**According to IPC-SF-818**

Test	Result
Copper Mirror Test	Pass
Copper Corrosion Test	Pass
Surface Insulation Resistance (50 °C, 90% R.H., 7 days, 12.5 mil comb pattern)	10 <sup>10</sup> ohms (Requirement: ≥10 <sup>8</sup> ohms)

**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 or [link here](#).



**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](http://MacdermidAlpha.com/assembly-solutions/knowledge-base).**

**CONTACT INFORMATION**

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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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