

# ALPHA<sup>®</sup> OA3530HF

## Halide Free Lead Tinning Flux

### FEATURES & BENEFITS

- **ALPHA OA3530HF** has high activity to ensure effective solder wetting on Kovar, Alloy 42, nickel and copper alloys
- Incorporated with an improved surfactant system which can eliminate excess solder defects such as icicles, bridges and solder lumps
- Compatible with both conventional DIPs and surface-mount devices such as SOICs and PLCCs
- Ingredients containing halides are not used in this formulation. **ALPHA OA3530HF** is also free from inorganic metals such as Zinc and Lead
- Water-based formulation rendering thinner addition generally unnecessary and thus reduces cost and results to easier process control

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

### APPLICATION GUIDELINES

ALPHA OA3530HF can be applied by wave or dip techniques. It can also be used as received or with dilution. If an automatic tinning machine cannot accommodate water dilution or in case of manual hot solder dipping, ALPHA OA3530HF can be diluted with ALPHA 425 Thinner to prevent solder spattering. A dilution ratio of 1:1 or 1:2 (with ALPHA 425 Thinner or deionized water) by volume is feasible, with actual optimum dilution ratio dependent on component lead basis metal conditions. Since ALPHA OA3530HF is a water-based flux system, a preheat temperature (measured on the component lead) of 100°C to 110°C minimum will be necessary to avoid solder spattering.

Operating Parameter	Recommendation
Flux application	Wave, Dip
Preheat Temperature	Lead Temperature: 100 – 110°C minimum
Soldering for 63Sn37Pb	Temperature: 245 ± 10 °C Dwell Time: 3 to 5 sec
Conveyor Speed	0.8 to 1.2 m/min
Post-Cleaning with DI H <sub>2</sub> O	Spray at 60 to 70 °C free rinsing; 5gal/min flow rate Two to three cascading stages spray at 40 to 60°C; 2 to 3 gal/min

Operating Parameter	Recommendation
Air Drying	Hot Air
These are general guidelines which have proven to yield excellent results; however, depending upon your equipment, components, and circuit boards, your optimal settings may be different. In order to optimize your process, it is recommended to perform a design experiment, optimizing the most important variables (amount of flux applied, conveyor speed, topside preheat temperature, solder pot temperature and board orientation).	

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#### TECHNICAL DATA

Item	Typical Values	Item	Typical Values
Appearance	Clear pale yellow liquid	Flash Point (T.C.C.)	None
% Nonvolatiles by wt.	44.0	Recommended Thinner	ALPHA 425
Specific Gravity @ 25 °C (77 °F)	1.195 ± 0.005	Shelf Life (from Date of Mfg.)	540 days
pH @ 25°C (77°F), as is	3	Pounds per Gallon	9.94
Total Halides, ppm	≤10	Packaging Size	5 and 55 gallons

**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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