

# ALPHA<sup>®</sup> 859-13S

## Water Soluble Flux

### DESCRIPTION

**ALPHA 859-13S** flux is intermediate-activity flux based on water soluble resin, and do not contain organic acid activators. This flux can be effectively cleaned with plain water. The base resin is a derivative of rosin but, unlike rosin, does not have any of the inherent fluxing capabilities of rosin, nor does it dry to hard, encapsulating residues, as does rosin.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

### APPLICATION GUIDELINES

This flux is recommended for mass soldering applications where traditional organic water soluble fluxes are considered too corrosive. They have excellent characteristics for foam application and can also be applied by wave, spray, dip, and brush techniques.

ALPHA 859-13S is suitable for soldering to the following metals, provided the surfaces to be soldered are not excessively tarnished:

Cadmium (Plate)	Platinum	Terne (Plate)	Copper	Silver
Tin (Hot Dipped)	Gold	Solder (Plate)	Tin (Plate)	Palladium

### Flux Control

The consistency of ALPHA 859-13S 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 0.823 and 0.833 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

The residues of ALPHA 859-13S can easily remove with hot water cleaning, and there is a minimum amount of foaming during residue removal. Disposal of water washing effluents presents no problems, since they are biodegradable. However, pH adjustment and pre-treatment to remove dissolved lead may be necessary. If desired, ALPHA 2444 Rinse Aid can be used. To avoid the risk of corrosion, residues should be thoroughly cleaned, preferably, immediately or not beyond two to four hours after processing.

**TECHNICAL DATA**

Item	Typical Values	Item	Typical Values
Appearance	Clear, Amber liquid	Flash Point (T.C.C.)	17 °C/62 °F
Solids Content, wt/wt	25%	Recommended Thinner	Alpha 425
Specific Gravity @ 25 °C (77 °F)	0.828 ± 0.005	IPC J-STD-004 Designation	ORH1
pH (5% Solution)	6.7	Shelf Life (from Date of Mfg.)	18 months

**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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