

ALPHA[®] 859-9S

Water Soluble Flux

DESCRIPTION

ALPHA 859-9S 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 859-9S 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)	Palladium	

Flux Control

The solids content of this flux should be maintained by the addition of thinner to compensate for evaporation losses. In general, it is recommended that the solids content not be allowed to increase by more than 5% before the addition of thinner. Only ALPHA 425 Thinner should be used for this purpose, to ensure consistency of flux foaming and soldering characteristics. Flux solids content is readily controlled by simple hydrometer measurement.

Residue Removal

The residues of ALPHA 859-9S 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 pretreatment 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	Amber liquid	Water Extract Resistivity	29,000 ohm-cm
Solids Content, wt/wt	17%	Flash Point (T.C.C.)	17 °C/62 °F
Specific Gravity @ 25 °C (77 °F)	0.823 ± 0.005	IPC J-STD-004 Designation	ORH1
% Halide	0.73 ± 0.07	Recommended Thinner	Alpha 425
Acid Number (mg KOH/gm)	11.4 ± 1.0	Shelf Life (from Date of Mfg.)	18 months
pH (5% Solution)	7.2	Container Size	1 Gal, 5 Gal, 55 Gal

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.**

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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