

ALPHA[®] NF373 Neutral Flux

Neutral Water-Soluble Flux

DESCRIPTION

ALPHA NF373 Neutral Flux is a water removable liquid soldering flux used in the mass soldering of printed circuit boards in Lead Free and Tin Lead processes. The organic activating systems in Alpha neutral fluxes have a neutral pH at room temperature and become activated with elevated temperatures of the soldering process. **ALPHA NF373 Neutral Flux** formulation provides a broad preheat range, low smoke, low odor and does not foam in cleaning systems using soft or deionized water.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

APPLICATION GUIDELINES

Primarily for foam application and conveyORIZED soldering, ALPHA NF373 Neutral Flux can be spray, dip, wave or brush applied. Flux applicators and reservoir should be plastic or titanium only.

Flux coated surfaces should be preheated to provide optimum wicking and solder joint formation. The degree of preheat is dependent on many variables, such as conveyor speed, type of components and substrates. Entering the solder wave with a topside temperature in the 170 to 200 °F range is typical.

Control: The foam applicators should be supplied with compressed air, free of oil and water. Maintain flux fluid level sufficiently above the aerator stone to produce adequate foam height. Adjust air pressure to produce optimum height with foam consisting of small uniform bubbles. During use, the specific gravity of the flux should be checked periodically. This can be accomplished with a hydrometer. Evaporated solvent should be replenished by the addition of flux thinner.

In time, debris and other contaminants will accumulate in the flux. For consistent soldering performance, replace flux periodically. After dumping used flux, the reservoir and aerator stone should be thoroughly cleaned with flux thinner. Refill flux reservoir with fresh flux and allow a few minutes for foam to stabilize before resuming solder operation.

Residue Removal: After soldering ALPHA NF373 Neutral Flux, residues must be removed. Removal can be accomplished by multi-zone conveyORIZED in-line spray systems, automated batch spray systems (dishwashers) or multi-stage batch tank cleaning. Multiple zone in-line

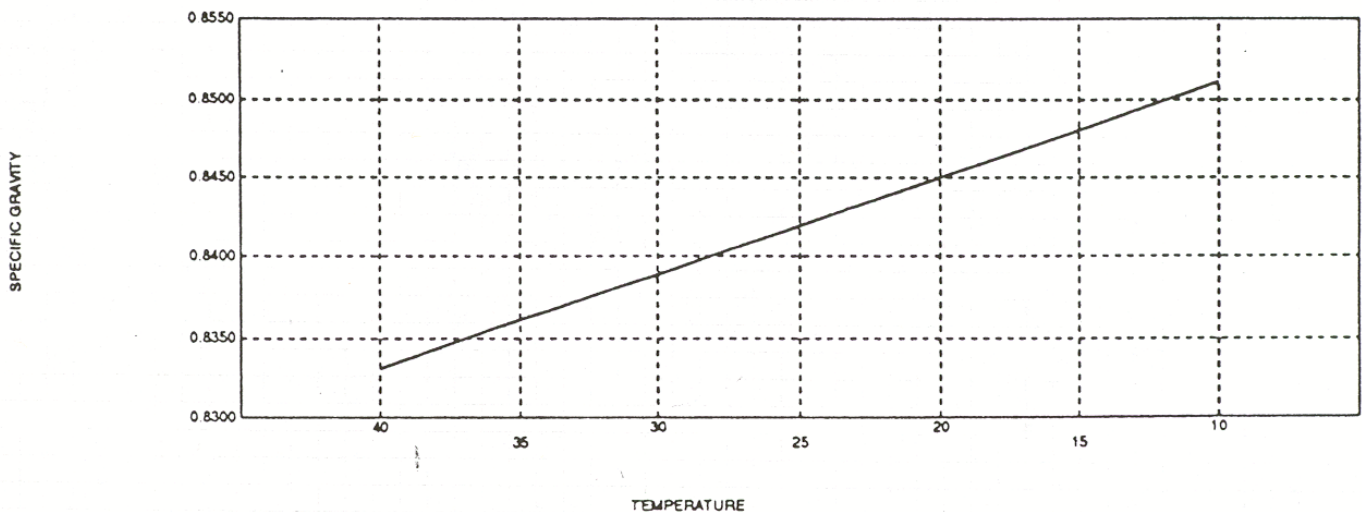
systems equipped with quality tap or conditioned water, an effective air knife and drying capacity, will produce MIL-P-28809 ionic cleanliness levels.

ALPHA 520 saponifier will improve the removal of flux residues, aqueous spot masks, and other soils, particularly when cleaning in a batch system or other cleaning equipment with limited cleaning zones.

TECHNICAL DATA

Item	Typical Values	Item	Typical Values
Appearance	Clear colorless liquid	Flux Type	Organic Acid (Neutral)
Solids Content, wt/wt	24%	Recommended Thinner	ALPHA 425
Specific Gravity @ 25 °C (77 °F)	0.841 ± 0.005	Flash Point	13 °C (56 °F)
% Chloride	2.1 ± 0.2	IPC J-STD-004 Designation	ORH1
pH (5% solution)	7.0 ± 0.5	Shelf Life (from Date of Mfg.)	720 days
Pounds per Gallon	7.01	Packaging Size	1, 5, and 55 gallons

SPECIFIC GRAVITY VS TEMPERATURE (C)



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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