



# SUPERIOR No. 85



## ORGANIC ACID, WATER SOLUBLE FLUX

- Excellent for Copper and difficult-to-solder metals including Alloy 42, Alloy 51, and Nickel alloys
- Effective on bare Copper, OSP, HASL, or plated surfaces
- May be applied in either foam or spray systems
- Solders single- and double-sided circuit boards
- Conforms to IPC ANSI J-STD-004, Type ORM1.

### DESCRIPTION

**Superior No. 85** is a halide, organic acid (OA) flux formulated for difficult-to-solder surfaces where activated rosin fluxes and less active OA fluxes cannot be used. This flux combines a unique activation system with a special no-polyol base that is compatible with all solder masks, does not leave a post-solder white residue, and is an ideal choice for high volume soldering operations.

The solderability and cleanability of **Superior No. 85**, along with excellent foaming characteristics and heat stability, provide a moderately low "solids" flux adaptable to a wide variety of board styles, sizes and thicknesses.

### APPLICATION

#### WAVE SOLDERING

To ensure optimum flux activity, a topside temperature of 88-116°C/190-240°F is recommended. Residues from **Superior No. 85** are completely water-soluble and can be removed in batch or in-line aqueous cleaning systems. For best cleaning results, wash residues immediately after soldering. A water temperature of 49-60°C/120-140°F is recommended for optimum results. However, excellent results are routinely achieved at lower water temperatures. The organic base of **Superior No. 85** is non-toxic and low foaming. Rinse waters are completely biodegradable. Consult local authorities for disposal regulations.

Best results can be obtained by following these guidelines:

- ❶ Make certain that the PCB surfaces are free of any oil, grease, or other impurities.
- ❷ Maintain a consistent foam head by narrowing the flux chimney, or using dual flux stones.
- ❸ Add fresh flux to maintain proper flux level in flux tank.
- ❹ Replace flux daily if self-contained storage is not available. Otherwise, replace after every forty (40) hours of operation.
- ❺ Regularly clean the fluxing equipment. Never leave foaming stone in flux when pressure is not applied.
- ❻ Clean fluxing stone in **Superior No. 95T** flux thinner.
- ❼ Adjust the specific gravity to the nominal level with a hydrometer. Evaporated solvent should be replaced by the addition of **Superior No. 95T** flux thinner.

*Superior manufactures quality fluxes. Our business is solving problems.*



## PHYSICAL PROPERTIES

Specific Gravity	0.810 ± 0.010 @ 20-25°C/68-77°F
Density	6.76 lbs/Gallon @ 20-25°C/68-77°F
Color	Clear liquid, pale yellow
Solids Content	4.44%
Halide Content	1.93%
Flashpoint	53°F Tag Closed Cup Method
Recommended Topside Temperature	190-240°F
Recommended Soldering Range	200-315°C/390-600°F

**THIS PRODUCT IS RoHS COMPLIANT.**

## SAFETY PRECAUTIONS

**Superior No. 85** is a flammable product and should be handled with care and the normal precautions taken when working with chemical products.

When soldering with **Superior No. 85**, adequate exhaust ventilation should be provided. Avoid contact with eyes, skin, and mucous membranes. Always wear NIOSH approved safety equipment when working with chemicals. Store in plastic containers away from heat.

Refer to Material Safety Data Sheet (MSDS) for additional safety information.

**Superior No. 85** has a two (2) year shelf life.

The information contained herein is based on data considered to be accurate and is intended for use by persons having technical skills at their own discretion and risk. Since conditions of use are outside of Superior Flux & Mfg. Co.'s control, we cannot assume liability for results obtained or damage incurred due to misuse, nor can we assume customer liability.

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