



SUPERIOR No. 435 3:1



ORGANIC ACID, NON-HALIDE TINNING FLUX

- Alcohol-based, non-halide, organic-acid flux formulated for direct solder flow.
- Developed for electronic applications where halide type fluxes are not acceptable.
- Specially formulated for Nickel alloys, Kovar, EN, and Copper and other lead metals.
- Applications include IC's, and semiconductors, cerdips, and connectors.
- Conforms to IPC ANSI J-STD-004, Type ORM0.

DESCRIPTION

Superior No. 435 3:1 is a water-soluble flux that is entirely free of chlorides, bromides, and phosphates. It employs unique organic activators to strip off metal oxides and tarnish, without attacking the underlying metals. This flux has many of the excellent operational characteristics of halide-containing organic fluxes while being much less corrosive.

APPLICATION

COMPONENT TINNING

Superior No. 435 3:1 is supplied in an alcohol-base to assist in reducing solder-balls, and provides the most effective oxide removal as supplied. The flux may be used in dip, drag, and other processes common to component tinning. After applying flux to leads, it is recommended that soldering be done shortly after flux application. To remove post-solder residues, a water temperature of $60^{\circ}\text{C}\pm 10^{\circ}\text{C}/140^{\circ}\text{F}\pm 20^{\circ}\text{F}$ is recommended for distilled or de-ionized water. Room temperature water can be used if hot water is not available, however the cleaning cycle must be lengthened. A non-ionic surfactant may be added.

For optimum soldering results, use the following guidelines:

- ❶ Make certain that component leads and surfaces are free of any oil, grease, or other impurities.
- ❷ After leads are fluxed, preheat the leads. A temperature range of $93\text{-}115^{\circ}\text{C}/200\text{-}240^{\circ}\text{F}$ will provide optimum flux activation and yield the best lead finish or joint.
- 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 operation.
- ❺ Regularly clean the fluxing equipment to prevent buildup of impurities which can make flux less effective.
- ❻ Flux is supplied with an alcohol-base and specific gravity may change over time. Add **Superior No. 95T** Flux Thinner to maintain proper specific gravity.
- ❼ All parts must be cleaned after soldering. Post-solder residues will cause corrosion if not removed. Clean leads/parts using hot ($60^{\circ}\text{C}\pm 10^{\circ}\text{C}/140^{\circ}\text{F}\pm 20^{\circ}\text{F}$) de-ionized or distilled water. The addition of a non-ionic surfactant can help lower the surface tension of the water and yield a quicker, more effective post-solder cleaning.

Superior manufactures quality fluxes. Our business is solving problems.



**Superior Flux
& Mfg. Co.**

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PHYSICAL PROPERTIES

Form	Clear, straw-colored liquid
Specific Gravity	0.825 ± 0.075 @ 20-25°C/68-77°F
Density	6.97 Lbs/Gal @ 20-25°C/68-77°F
pH	4.30 ± 0.30 @ 20-25°C/68-77°F
Flash Point	12°C/53°F TCC Method
Optimum Soldering Range	200-280°C/390-540°F
Inorganic Content	None
Residues	Completely water-soluble

THIS PRODUCT IS RoHS COMPLIANT

SAFETY PRECAUTIONS

Superior No. 435 3:1 is an alcohol-based product that requires storage in an area approved for flammable materials, and should be handled with care and the normal precautions taken when working with chemical products.

When soldering with **Superior No. 435 3:1**, adequate exhaust ventilation should be provided. Avoid contact with eyes, skin, and mucous membranes. Always wear NIOSH approved safety goggles or glasses, gloves, and other protective gear working with chemicals.

Store in plastic containers away from heat, sparks, or open flames in an area with controlled temperature between 18-25°C/64-77°F.

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

Superior No. 435 3:1 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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