



# SUPERIOR No. 23

## Selective Soldering Tinning Flux



## SELECTIVE SOLDERING SOLDER NOZZLE TINNING FLUX

- Formulated for tinning solder nozzles on selective soldering machines.
- Ensures uniform solder flow on selective soldering machines.
- Does not contain Ammonium Chloride
- Conforms to IPC ANSI J-STD-004, Type INH1.

### DESCRIPTION

**Superior No. 23** is a water-based, general purpose, inorganic-acid flux specifically effective for tinning solder nozzles on selective soldering machines. The flux contains Zinc Chloride and Hydrochloric Acid, making this flux active at room temperature where it begins to clean metals and remove oxides. *No. 23 does not contain Ammonium Chloride.* The flux exerts a strong scavenging action to remove oxide coatings and other impurities from the metal surface.

### APPLICATIONS

**Superior Flux No. 23** is effective in removing oxide build-up on solder nozzles for effective flow of solder in selective soldering machines. Over time, oxides build up at the top of and along the side of the solder nozzle. When this occurs, the solder no longer flows uniformly up from the nozzle and then down the sides of the solder nozzle barrel. This inconsistent flow causes aberrations in the flow of solder from the nozzle, leading to ineffective or faulty placement of the solder on the PCB. A visual inspection of the flow of solder from the nozzle is usually enough to indicate whether application of No. 23 is needed: if the solder is not flowing straight up and then down the sides of the barrel in an equal and smooth manner, then tinning is needed. Regular and proper tinning of the solder nozzle will lead to effective placement of solder on the PCB and increased longevity of the solder nozzle apparatus.

### DIRECTIONS

**Superior No. 23** is best applied to the solder nozzle using a brush (hog hair is recommended).

The following steps are recommended for optimum tinning results:

- ➊ Turn off flow of solder from the solder nozzle.
- ➋ Remove cap that covers solder nozzle area. (If cap is not removed and flux is only applied to top of nozzle, there is the risk that there will still be oxide buildup on the barrel sides, which can lead to uneven solder flow from the nozzle, and solder build up on the cap.)
- ➌ Using a hog hair brush, brush **No. 23** flux up and down the entire length and circumference of flux nozzle. Apply flux to top of nozzle as well.

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



**Superior Flux  
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## PHYSICAL PROPERTIES

Form	Colorless liquid
Specific Gravity	1.345 ± 0.015 @ 20-25°C/68-77°F
pH	0.10 @ 20-25°C/68-77°F
Flash Point	None
Freezing Effects	None
Recommended Tinning Range	95 – 350°C/ 200 – 660°F

**THIS PRODUCT IS RoHS COMPLIANT**

## SAFETY AND PRECAUTIONS

**Superior No. 23** is a corrosive product and should be handled with care, using the standard precautions taken when working with corrosive chemical products.

When soldering with **Superior No. 23**, 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.

Due to the presence of zinc, a heavy metal, disposal of post-solder residues and wash-water must be carried out in accordance with local, state, and/or federal environmental guidelines.

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

**Superior No. 23** 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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