



SUPERIOR No. 23



INORGANIC ACID SOLDERING FLUX

- Formulated for soldering Stainless Steel and High-Chrome Alloys.
- Excellent across a broad range of base metals, solders, and temperatures.
- Exhibits excellent capillary action.

DESCRIPTION

Superior No. 23 is a water-based, inorganic-acid flux specially formulated for soldering stainless steel and other industrial metals. The flux contains Zinc Chloride, Hydrochloric Acid, and other activators that make this flux active at room temperature where it begins to clean metals and remove oxides. The flux exerts a strong scavenging action to remove oxide coatings and other impurities from the metal surface to produce strong joints. Pre-cleaning is not necessary under most conditions.

APPLICATIONS

Superior No. 23 is excellent for use on Stainless Steel, Monel, High-Chrome Alloys, Inconel, Nickel, Copper, Brass, Ferrous Alloys and many more metals. It is not recommended for Aluminum and Magnesium.

DIRECTIONS

Superior No. 23 may be applied with a brush, swab or by dipping. The flux exhibits the best activity between 93-315°C/200-600°F. Post-solder residues are water-soluble, and hot water rinses (60°C±10°C/140°F±20°F) may be adequate for most applications. To insure complete removal of flux residues, first use water containing 2% HCl followed by as many hot water rinses as necessary.

The following steps are recommended for optimum soldering results:

- ❶ Remove any oil, grease, or other contaminants from the surface to be soldered.
- ❷ Apply flux to joint by dipping, spraying, dragging, swabbing or brushing to area being soldered.
- ❸ Preheat or air-dry area to be soldered after flux has been applied to activate the flux and yield optimum soldering characteristics and reduce or eliminate spattering.
- ❹ Apply solder, dip part, place torch or iron to area being soldered.
- ❺ Clean flux residues from soldered area using de-ionized, distilled, RO, and in some cases tap water heated to a temperature of 60°C±10°C /140°F±20°F for best results. Room temperature water may also be used.

Superior manufactures quality fluxes. Our business is solving problems.



PHYSICAL PROPERTIES

| | |
|-----------------------------|---------------------------------|
| Form | Slightly yellow, clear liquid |
| Specific Gravity | 1.345 ± 0.015 @ 20-25°C/68-77°F |
| Conductivity | 475 ± 25mV @ 20-25°C/68-77°F |
| Flash Point | None |
| Freezing Effects | None |
| Residues | Completely water-soluble |
| Spread Factor | 80 Minimum |
| Recommended Soldering Range | 93-315 °C/200-600 °F |

THIS PRODUCT IS RoHS COMPLIANT

SAFETY PRECAUTIONS

Superior No. 23 is a corrosive product and should be handled with care and the normal precautions taken when working with 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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