SUPERIOR SSF-WS80
Selective Soldering Flux

SELECTIVE SOLDERING, NEUTRAL WATER-SOLUBLE FLUX

- **Formulated for Selective Soldering Applications**
- Water-Soluble, Alcohol Based Selective Soldering Flux
- For use with lead-free and lead-bearing alloys.
- Higher activity coupled with increased temperature tolerance.
- Formulated to reduce spattering upon contact with solder.
- Increased activity level to meet flow and melt-points of different Lead-Free solders.
- Conforms to IPC ANSI-J-STD-004, Type ORM1.

DESCRIPTION

Superior SSF-WS80 is a neutral yet active, water-soluble selective soldering flux. This alcohol-based flux promotes the rapid activity necessary for selective soldering, and is also formulated to withstand the higher temperature requirements of selective soldering applications. (Solder temperatures in selective soldering units are often 300 – 340°C, instead of the 245-260°C typically found in wave soldering applications.) ***Superior SSF-WS80*** leaves residues that are neutral and water-soluble, and the flux is effective for both lead-free and lead-bearing solder alloys.

PROCESS RECOMMENDATIONS

Superior SSF-WS80 is designed to withstand the higher temperature requirements of selective soldering. Optimum topside PCB preheat temperature recommendation is 93-115°C/200-240°F. (While some selective soldering equipment is equipped with preheat mechanisms, some selective soldering equipment does not have a preheat option.) Even absent a pre-heat mechanism, ***Superior SSF-WS80*** is designed to withstand the sudden temperature spikes typical of selective soldering. Precise solder temperature requirements will vary depending on process, board thickness, heat-sinking on PCBs, and the Lead-Free alloy being used. The addition of nitrogen gas is recommended to ensure wicking, wetting and finished assembly consistency.

The following procedures are recommended for optimum performance.

1. Make certain that the PCB surfaces are free of any oil, grease, or other impurities.
2. Regularly maintain the solder nozzle by tinning the stainless steel tip and barrel of the selective soldering solder nozzle with ***Superior No. 75*** or ***No. 23*** tinning flux.

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PHYSICAL PROPERTIES

Specific Gravity	0.085 ± 0.015 @ 20-25°C/68-77°F
Pounds/Gallon	7.09 ± 0.20 @ 20-25°C/68-77°F
pH	7.0 – 8.0
Total Solids	17%
Halides Content	3.1%
Flash Point	53°F Tag Closed Cup Method
Freeze/Thaw Test	Passes
Soldering Range	200 -350°C/390-660°F

THIS PRODUCT IS RoHS COMPLIANT.

SAFETY AND HANDLING PRECAUTIONS

Superior SSF-WS80 alcohol-based Selective Soldering Flux is a Flammable Liquid that contains strong activators. Chemical safety and storage practices must be observed when handling this product. Avoid contact with eyes, skin, and mucous membranes. The use of rubber gloves, goggles and/or face shield is recommended. Use with adequate ventilation and/or respiratory protection. Refer to the Material Safety Data Sheet (MSDS) for additional information. ***Superior SSF-WS80*** has a two (2) year shelf life.

Superior SSF-WS80 alcohol-based flux should be stored in plastic containers in cabinets or rooms certified for storing Flammable Liquids. In the event the flux is exposed to temperatures below 0°C/32°F, the flux may freeze. Freezing will not degrade this product if these steps are followed:

❶ Thaw flux until room temperature is reached

❷ Agitate flux to return to proper consistency.

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