## **No Clean Liquid Flux**

#### **Features:**

- VOC Exempt According to ASTM D3960-98
- Low Post Process Residues
- Passes IPC SIR-004 B

- Lead-Free Compatible
- Broad Process Window
- Excellent in Extended Dwell Time
- Halide-Free
- Excellent Wetting

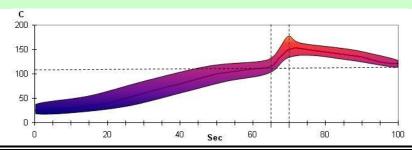
### **Description:**

NC275LR is a water-based, halide-free, no-clean liquid flux formulated to offer a very wide process window allowing for extremely good wetting, even to difficult-to-wet materials. NC275LR offers a broad activation range, proving to be an excellent flux for a variety of process parameters and applications, including lead-free wave soldering with tin-silver-copper, tin-silver, tin-copper, and other alloys. NC275LR offers low post-process residues and has proven to reduce preventative maintenance requirements for spray fluxing applications. In addition, NC275LR offers low-fuming and fast solvent evaporation. NC275LR is safe to be left on the circuit board after processing and uncleaned. NC275LR is extremely safe for rework, palletized wave soldering and point-to-point selective soldering. NC275LR is designed to be a no-clean, non-visible residue flux, which can be cleaned if critical to the product application.

### **Application:**

- NC275LR is ready to use directly from the container for spray systems.
- When spray fluxing, it is imperative that proper flux coverage and uniformity be achieved and maintained. A dry flux coating of 500 to 2000 micrograms per square inch is necessary.
- When complete nitrogen sealed wave solder equipment is used, it is generally necessary to apply slightly more flux than normal as a result of excess drying due to the extended length of the equipment.

#### **Thermal Profile:**



RATE of RISE	PROGRESS THROUGH	PCB TOP SIDE TEMP	COOLDOWN
2-3 °C / SEC MAX	66°C - 77°C ( 150 - 170°F )	90°C - 125°C (194°F - 257°F )	≤ 4°C
	≤ 40 SECONDS	JUST BEFORE WAVE	

### **Cleaning:**

NC275LR can be cleaned, if necessary, with water, and enhanced cleaning can be achieved through the use of a saponifier. Deionized water is recommended for the final rinse. A temperature of  $38^{\circ}\text{C}$  -  $65^{\circ}\text{C}$  ( $100^{\circ}$  -  $150^{\circ}\text{F}$ ) is sufficient for removing any residues. An in-line or other pressurized spray cleaning system is suggested, but is not required.

### **Handling:**

- NC275LR has a sealed shelf life of nine (9) months at room temperature.
- Keep away from sunlight as it may degrade the product.
- NC275LR is shipped ready to use; no mixing is necessary.
- Do not mix used and unused chemical in the same container. Reseal any open containers.
- Optimal storage condition is 25°- 30°C (75° 85°F), acceptable storage conditions range from 4°- 40° C (40 100°F).

### Safety:

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying Material Safety Data Sheet for any specific emergency information.
- Do not dispose of any waste materials in non-approved containers.

# **Physical Properties:**

Parameter	Value
J-STD-004	ORL0
Visual	Colorless
Solids Content	$1.35 \pm .35$
Acid Number	15-18 mg KOH per gram flux
Specific Gravity	$1.00 \pm 0.05$
pH (1% solution /water)	$2.96 \pm 0.80$

# **Corrosion Testing:**

Parameter	Requirements	Results
Copper Mirror (24 hrs @ 25°C,50%RH)	IPC-TM-650-2.3.32	Low
Halide Test (Silver Chromate)	IPC-TM-650-2.3.33	Pass

### **Surface Insulation Resistance:**

Reference	Results
IPC-TM-650, method 2.6.3.7, 40°C / 90% R.H.	Pass – See AIM Qualification Test Report # NC275LR032811

#### Manufacturing and Distribution Worldwide

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AIM IS ISO9001:2008 & ISO14001:2004 CERTIFIED

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