No-Clean Low-Residue Liquid Flux

Features:

- Low-Residue
- Excellent Wetting
- Halide-Free
- ORL0 per J-STD-004B

- Fast Wetting for SN100C® and SAC Alloys
- Rosin- and Resin-Free
- Lead-Free and Tin-Lead Compatible
- REACH Compliant

Description:

NC265LR is an alcohol-based no-clean liquid flux formulated to offer low-residue for lead-free and tin-lead wave soldering operations. NC265LR offers faster wetting for SN100C® and SAC alloys than previously formulated fluxes and is compatible with a broad range of lead-free and tin-lead solder alloys. NC265LR offers low post-process residues and has proven to reduce preventative maintenance requirements for spray fluxing applications. NC265LR is safe to be left on the circuit board after processing and uncleaned. NC265LR is extremely safe for rework, palletized wave soldering and point-to-point selective soldering. NC265LR is designed to be a no-clean, non-visible residue flux that can be cleaned if critical to the product application.

Application:

- NC265LR is formulated for application via spray, brush, mist, or dip. For spraying, NC265LR is ready to use directly from its container, no thinning required. When spray fluxing, it is imperative that proper flux coverage and uniformity be achieved and maintained. A dry flux coating of 500-1500 micrograms per square inch is recommended as a starting point.
- When 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.

Process Guidelines:

Using thermocouples attached to the top of the PCB, the topside assembly temperature should be between 80-110°C (176-230°F). Convection type pre-heaters provide a wider process window with alcohol based fluxes such as NC265LR. It is important that the flux be dry prior to entering the wave regardless of temperature or spattering will occur. Smoking may occur and is considered normal if it is not excessive. Recommended contact time with the wave is dependent on wave configuration, pot temperature, alloy type and thermal mass of the assembly with 3-5 seconds for Sn63/Pb37 and 4-7 seconds for lead-free alloys being typical. For processing assistance, please contact AIM Technical Support.

Cleaning:

NC265LR can be cleaned, if necessary, with saponified water or an appropriate solvent cleaner. Please refer to the AIM No-Clean-Cleaner Matrix for a list of suitable cleaning materials.

Handling:

- NC265LR has an unopened shelf life of 1 year when stored at room temperature.
- Do not store near fire or flame.
- Keep away from sunlight as it may degrade product.
- NC265LR is shipped ready-to-use, no mixing necessary.
- Do not mix used and unused chemical in the same container.
- Reseal any opened containers.

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 hazardous materials in non-approved containers.

Physical Properties:

Parameter	Value
J-STD-004B	ORL0
Visual	Clear, Colorless
Odor	Aromatic (Slightly)
Solids Content	$1.94\% \pm 0.2$
Acid Number	15.58 ± 1.5 mg KOH per gram flux
Specific Gravity	$0.79 \pm 0.2 \text{ (water = 1)}$
Flash Point	<10°C
Boiling Point	82°C
pH (1% solution /water)	Acidic

Corrosion Testing:

Parameter	Requirements	Results
Copper Mirror (24 hrs @ 25°C, 50%RH)	IPC-TM-650-2.3.32	Low
Silver Chromate	IPC-TM-650-2.2.33	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

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