



A NEW FORCE IN CHEMICAL MANUFACTURING

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TECHNICAL DATA SHEET

MARCH 2015

PRODUCT NAME

NC33-08I Low Solids No Clean Liquid Flux

PRODUCT RANGE

| Part Number | Available Size |
|-------------|----------------|
| NC33-08I-1L | 1 Litre |
| NC33-08I-5L | 5 Litre |
| NC3308I-20L | 20 Litre |



Refer to SDS for product safety guidelines

NC33-08I Low Solids No Clean Liquid Flux

Features:

- Low-Residue
- Fast Wetting for SN100C® and SAC Alloys
- Excellent Wetting
- Rosin- and Resin-Free
- Halide-Free
- Lead-Free and Tin-Lead Compatible
- ORLO per J-STD-004B
- REACH Compliant

Description:

NC33-08I is an alcohol-based no-clean liquid flux formulated to offer low-residue for lead-free and tin-lead wave soldering operations. NC3308I 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. NC33-08I offers low post-process residues and has proven to reduce preventative maintenance requirements for spray fluxing applications. NC33-08I is safe to be left on the circuit board after processing and uncleaned. NC3308I is extremely safe for rework, palletized wave soldering and point to-point selective soldering. NC3308I is designed to be a no-clean, non-visible residue flux that can be cleaned if critical to the product application

Application:

- NC33-08I is formulated for application via spray, brush, mist, or dip. For spraying, NC33-08I 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 65-95 °C (149-203 °F). Convection type pre-heaters provide a wider process window with alcohol based fluxes such as NC33-08I. 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 Chemtools Technical Support.

Cleaning:

NC33-08I can be cleaned, if necessary, with saponified water or an appropriate solvent cleaner. Please refer to the Chemtools Flux Removers for a list of suitable cleaning materials.

Handling:

- NC33-08I 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.
- NC33-08I 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 waste materials in non-approved containers.

| Parameter | Value |
|-------------------------|-----------------------------------|
| J-STD-004B | ORLO |
| Visual | Clear, Colourless |
| Odour | Aromatic (Slightly) |
| Solids Content | 1.94% +/- 0.2 |
| Acid Number | 15.58 +/- 1.5mg KOH per gram flux |
| Specific Gravity | 0.79 +/- 0.2 (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 |
| Halide Test (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 |

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