



Metallic Resources

MetaFlux™ NC-800 Product Bulletin

Alcohol Based No-Clean Flux

Metallic Resources' MetaFlux NC-800 is an isopropanol alcohol based low solids content no-clean soldering flux specially formulated for wave soldering applications where post-solder cleaning can be eliminated. It is halide-free and contains only non-halide activators. It is less active than MetaFlux NC-810. MetaFlux NC-800 successfully replaces rosin-based fluxes, and it does not contain any rosin or resins. It is available in 1-gal. containers, 5-gal. pails, and 55-gal drums.

Designed for Foam Fluxing

MetaFlux NC-800 is specially designed for wave soldering applications where elimination of post-cleaning is desired. It is successfully used in foam, spray, and drag fluxing soldering processes.

Benign Residues

MetaFlux NC-800 has a low solids content in addition to being halide-free, which allows the product to leave only negligible traces of benign residues. It promotes excellent solderability and leaves shiny solder joints. The flux does not spatter when coming into contact with molten solder.

Physical Properties

Form	Clear liquid
Color	Colorless
Specific Gravity	0.83 ± .005 g/cc @ 68°F (20°C)
Density	6.93 lb./gal.
Solids Content	2.1%
Flash Point	60°F (15.5°C)
Boiling Point	173°F (78.3°C)
Freezing Effects	None
Discoloration	None
Chloride/Halide Content	None
Water Content	<3.0%
Acid Number	18-20
SIR Values (Average)	4.6x10 ¹¹ Ohms
Optimum Soldering Range	390-500°F (200-260°C)



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Safety Precautions

MetaFlux NC-800 is flammable and should be stored in plastic containers away from heat, sparks, open flame, and other sources of ignition. Use adequate ventilation to remove fumes. Avoid contact with eyes and skin. Do not inhale vapors or fumes. Keep away from children. Dispose of in accordance with all applicable regulations. This product has a one (1) year shelf life. Refer to the Safety Data Sheet (SDS) for additional information.

Standards Met

IPC J-STD-004

Type ORLO classification

Copper Mirror Test

The test method is designed to determine the removal effect the flux has on a copper mirror. (IPC-TM-650, 2.3.32) Result: No Breakthrough Rating Category: L

Presence of Halides (Silver Chromate Method)

The test method is designed to determine the presence of chlorides and bromides in solder flux (IPC-TM-650, 2.3.33) Result: Passes

Fluorides by Spot Test

This test method is designed to determine the presence of fluorides in soldering flux. (IPC- TM-650, 2.3.35.1) Result: Passes

Halide Content

This test method is designed to determine the halide content of fluxes attributable to chlorides, bromides, and fluorides. The halide content is reported as the weight percentage of halide to the solid portion of the flux. (IPC-TM-650, 2.3.35 or 2.3.28 and 2.3.35.2 or 2.3.28) Result: Passes (No chlorides or bromides present (0%). Result: Passes No fluorides present (0%)

Solids Content

This test method is designed to determine the residual solids content of the liquid flux after evaporation of the volatile chemicals. (IPC-TM-650, 2.3.34) Result: 2.1%

Corrosion Test

This test method is designed to subjectively determine the corrosive properties of the flux residue under extreme environmental conditions. (IPC-TM-650, 2.6.15) Result: Moderate Corrosion.

Surface Insulation Resistance (SIR) Test

The surface insulation requirements for fluxes shall be determined. (IPC-TM-650, 2.6.3.3) Result: Passes. The flux exceeds the minimum requirement of 1.0E+8 Ohms average.

Control Value:	5.965E+12 Ohms
Pattern Side Up	4.6025E+11 Ohms
Pattern Side Down Cleaned	4.6925E+11 Ohms
Down Uncleaned	4.8325E+11 Ohms