

### **No-Clean Fluxes**

Qualitek no-clean fluxes are formulated to meet the changing requirements for today's soldering operations. Designed for wave soldering conventional and SMT circuit board assemblies, these extremely low solids content fluxes leave practically no residue after soldering. Boards are dry and cosmetically clean as they exit the wave solder machine. There are no residues to interfere with electrical test probes and the expense of cleaning is eliminated.

Qualitek NC fluxes are formulated to provide good activity while being halogen-free, non-corrosive and without surface insulation resistance degradation. No offensive odors are given off during soldering.

## **No-Clean Flux Titration Kits**

- HDT-200 Titration Kit
- This titration kit is designed for ease in testing the acid number of No-Clean flux. The hand held titrator reads in digital units simplifying process control.



# Water-Soluble Fluxes

Organic fluxes are commonly called "water soluble fluxes." Organic fluxes generally provide greater fluxing ability than rosin, but the ionizable nature of the water-soluble residue makes organic fluxes too conductive and potentially corrosive to leave on electronic assemblies. The organic fluxes are not as head stable as rosin fluxes but do provide more rapid fluxing action for high speed soldering.

Because of the ability to remove organic flux residue with water and the ease of disposal of the cleaning solutions, organic fluxes

### Continued Water-Soluble Fluxes

are more frequently being used for electronics soldering applications. A circuit board assembly must be designed for the use of organic flux and water cleaning since all of the residue must be removed.

# **Rosin Fluxes**

Qualitek rosin fluxes are formulated with high quality purified Grade WW rosin conforming to LLL-R-626 in specially blended solvent systems. The choice of the proper flux formula is based on the soldering application, desired rosin percentage, type of solvent and the activity level required.

# **Rosin Mildly Activated (RMA) Fluxes**

Qualitek RMA type fluxes have high thermal stability for soldering multi-layer assemblies. Exposure to high preheat temperatures does not degrade solubility of the residue in normal cleaning solvents.

### Fully Activated Rosin Fluxes

These fluxes are clear, homogeneous solutions of Grade WW rosin in special alcohol solvent systems into which have been incorporated highly efficient activating agents. The flux residues are noncorrosive and non-conductive when subjected to normal conditions where the solvent is volatilized and the residue is dry.

### Lead Tinning Fluxes

Lead tinning is a process of hot solder dipping of semiconductor and other electronic components. This solder coating provides a thick non-porous surface which enables a long solderable storage life.

Qualitek offers a line of fluxes for use in the lead tinning process. These fluxes are halide free therefore they will not cause internal package corrosion.

Qualitek lead tinning fluxes are precisely formulated to provide an effective solder coat for various types of lead tinning applications.

No-Clean Liquid Fluxes					
No-Clean Formula	Specific Gravity	Solid Content (wt.%)	Acid Number	Flash Point (TCC)	Flux Classification
302 305 326 360 365 380 391S	0.800 0.795 0.806 0.818 0.850 0.793 0.804	2.0 5.0 2.0 2.5 2.3 3.3 2.0	20.0 25.0 19.0 16.0 18.0 18.0 18.0	53 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F 58 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F	ORLO ROLO ORLO ORLO ORLO ROLO ORLO
No-Clean VOC Free 350 351 355 357 358	1.010 1.065 1.020 1.010 1.030	4.3 2.8 3.0 2.0 7.0	20.0 36.0 34.0 20.0 52.0	None None None None None	ORLO ORLO ORLO ORLO ORLO

Water-Soluble Liquid Fluxes						
Water-Soluble Formula	Specific Gravity	Solid Content (wt.%)	Halides %	Flash Point (TCC)	Flux Classification	
713N 714N 735-11 737N 775	0.884 0.834 0.956 0.846 0.873	25.0 16.0 16.0 17.0 28.0	1.90 1.90 3.00 2.20 1.90	62 <sup>0</sup> F 53 <sup>0</sup> F 71 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F	ORH1 ORH1 ORH1 ORH1 ORH1 ORM1	
Water-Soluble VOC Free 735VF 737NVF	1.050 1.010	18.0 13.0	3.00 2.20	None None	ORH1 ORH1	

Lead Tinning Formula	Specific Gravity	Solid Content (wt.%)	PH	Flash Point (TCC)	Flux Classification
813 814 820 737N	0.870 0.942 0.865 0.846	18.0 22.0 27.0 17.0	2.80 2.80 8.30 2.20	53 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F	ORMO ORMO ORMO ORMO
Lead Tinning VOC Free 830VHF	1.050	15.0	3.00	None	ORMO

Rosin Based Fluxes					
(Non Activated) R	Specific Gravity	Solid Content (wt.%)	Halides %	Flash Point (TCC)	Flux
125 140	0.844 0.882	25.0 40.0		53 <sup>0</sup> F 53 <sup>0</sup> F	ROL0 ROL0
(Mildly Activated) RMA 285 285-85	0.871 0.844	36.0 25.0	0.147 0.147	53 <sup>0</sup> F 53 <sup>0</sup> F	ROL1 ROL1
(Fully Activated) RA 512MM 515 525MIL 535MIL 545	0.840 0.829 0.840 0.862 0.928	32.0 19.5 32.0 35.0 50.0	0.435 0.304 0.435 0.217 0.440	53 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F 53 <sup>0</sup> F	ROM1 ROM1 ROM1 ROM1 ROM1



# Lead Tinning Fluxes