



# SURCLEAN

## Electronic Production Materials

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### **Surclean Screenclean 500 - General Description**

Surclean Screenclean 500 is a high performance Aqueous based cleaner for fast, effective removal of uncured SolderPaste and Adhesive residues from Screens, Stencils and associated tooling. It also has some applications in removal of residues from misprinted PCBs. Because it is free from Surfactants it does not degrade in use. Screenclean 500 is available as a concentrate or pre-diluted ready for use, according to the type of cleaning system and the residues to be removed.

- 1) Powerful action with the cleaning power of Solvent Cleaners combined with many of the safety and environmental advantages of Aqueous based materials.
- 2) Wide range of process applications from manual cleaning and batch type methods, through to fully automated screen cleaning systems. Usable from 20 deg. C through 45 deg. C.
- 3) Cleans a wide range of residues and will not foam or leave white residues after rinsing.
- 4) Environmentally safe. SC500 is free of Surfactants, Inorganic salts and Halogenated Compounds. SC500 is classified as an Ultra low VOC content material and has an ODP potential of 0. Surclean SC500 is 100% Bio-degradeable.
- 5) Economical in use. SC500 is diluted with water for many of the listed applications.
- 6) Safe and pleasant to use. SC500 is very low odour, non flammable and has very low toxicity.
- 7) Exceptionally good compatibility with Screen and Stencil attachment adhesives. PH neutral formulation prevents damage to Screen and Stencil Frames.

### **General Process Application Data**

Surclean Screenclean 500 is designed for use in a wide range of processes. Process times will vary according to process and residue characteristics. Screenclean 500 can be used in a contaminated state until residue saturation inhibits cleaning or the rinse stage is unable to cope with contamination levels. Recirculation of the solution through filters down to 5 microns will extend its working life. When diluted the level of Screenclean 500 concentrate will vary according to requirements but is typically a minimum of 15% and up to a maximum of 30% in DI water. Rinsing of Stencils can be carried out using Town water. Rinsing of misprinted PCBs with DI water is preferable.

### **Processing - Cleaning - Immersion type systems**

Fully immerse Screen in the cleaning tank. SC500 must be heated to a min. temp of 20 deg. C. A reduction in cleaning time is possible if the temperature is increased up to a maximum of 45 deg. C. Agitation of the solution using spray under immersion, or ultrasonics where available, is beneficial. Process times vary according to the residue and cleaning processes, but are typically 3 - 12 minutes.

### **Processing - Cleaning - Spray type systems**

Process times depend on the throughput speed and spray characteristics of the particular equipment but all the process parameters shown for immersion cleaning can be used as a guide. SC500 does not show tendencies to produce micro aerosols, however process fume extraction should be utilised.

### **Processing -Stage 2-Rinse**

Rinse using Townwater or DI water at ambient temperature. Typical rinse time 3 to 5 minutes.



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### **Processing - Stage 3 - Drying**

Using hot air at a minimum of 80 deg. C. Drying time typically 5 - 10 minutes

Cleaning Applications - residue types

Residue	Cleaning Ability
Low solids Flux residues	Acceptable
Rosin/Modified Resin based Flux residues	Good
Water Soluble Flux residues	Good
Misprinted Solder Paste	Very Good
Uncured Misprinted Adhesive	Very Good

### **Screenclean 500 - Physical Characteristics**

Relative Density (gms/cubic CM) measured @ 20 deg. C.	0.92
Surface Tension (mN/m) measured @ 25 deg. C.	30.0
Boiling Range	93 - 225
Flash Point.	None
Flammability	Non - Flammable
PH Value	Neutral
Operating Temperature Range	20 - 45 deg. C.
Solubility in Water	Miscible
Typical Dilution ratios	15% min. up to 30% max

### **Maintenance of Screenclean 500 Solution**

Screenclean 500 can be used in a contaminated state until residue saturation levels cause either a fall off in cleaning action or the rinse time is no longer able to rinse the cleaning solution and contaminant away. Determining this point is by experience, but heavily contaminated fluid can still work quite acceptably. Contamination levels can be monitored by visual observation and by spot PH testing to determine the level of flux activation acids dissolved within the cleaning solution. By correlating PH readings and observations of cleaning and first stage rinse performance, a repeatable process control procedure can be established allowing timely replenishment of the solution without undue waste.

### **Disposal Actions**

Dispose of in accordance with local authority trade effluent conditions or by specialist collection contractors. e.g. Biffa PLC