

Technical Bulletin

Screenclean 500 Stencil Cleaner

DESCRIPTION

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.

KEY PRODUCT FEATURES & BENEFITS

- Powerful action with the cleaning power of Solvent Cleaners combined with many of the safety and environmental advantages of Aqueous based materials.
- Wide range of process applications from manual cleaning and batch type methods, through to fully automated screen cleaning systems. Usable from 20°C through 45°C.
- Cleans a wide range of residues and will not foam or leave white residues after rinsing.
- 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.
- SC500 is 100% Bio-degradable.
- Economical in use. SC500 is diluted with water for many of the listed applications.
- Safe and pleasant to use. SC500 is very low odour, non flammable and has very low toxicity.
- Exceptionally good compatibility with Screen and Stencil attachment adhesives. PH neutral
- formulation prevents damage to Screen and Stencil Frames.

APPLICATION

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°C. A reduction in cleaning time is possible if the temperature is increased up to a maximum of 45°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.



SOLDER CONNECTION

Email: sales@solderconnection.co.uk | Tel: +44(0)1291 624 400

Optional Processing - Stage 2 - Rinse

Rinse using Town-water or DI water at ambient temperature. Typical rinse time 3 - 5 minutes.

Processing - Stage 3 - Drying

Dry using warm air up to a maximum temperature of 80°C/122 F. Drying time typically 5 - 10 minutes. Drying can be achieved at room temperature, but the time taken is longer.

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

PHYSICAL CHARACTERISTICS

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

MAINTENANCE OF SOLUTIONS

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.

AVAILABILITY

Depending on preference and application, Screenclean 500 is available as both concentrate (5L Container) or pre-diluted (20L Container) ready for use formats. This is mainly dependent on the type of cleaning system being used and the residues to be removed.

HEALTH & SAFETY

Ensure stored, locked up, in a well-ventilated place. Dispose of contents/container to all local/regional/national/international regulations. For further information on health and safety please review the MSDS before use.

The information contained herein is based on data considered accurate and is offered at no charge. No warranty is expressed or implied regarding the accuracy of this data. Liability is expressly disclaimed for any loss or injury arising out of the use of this information or the use of the materials designated.