

Technical Bulletin

Screenclean 400 Stencil Cleaner

DESCRIPTION

Screenclean 400 is a synergistic blend of high performance Glycol Ethers and Hydrocarbons specifically designed for fast, effective removal of uncured solder paste and adhesive residues from screens, stencils and associated tooling. It will also remove residues from misprinted PCB's. SC400 is surfactant free and does not degrade in use. SC400 is supplied ready to use and is suitable for a wide range of processes from hand spot cleaning, use in the solvent tanks on automatic Stencil Printers for between print under stencil cleaning through to immersion and spray type automatic Stencil Cleaning Machines.

KEY PRODUCT FEATURES & BENEFITS

- 1) Powerful action with the cleaning power of Solvent Cleaners combined with many of the safety and environmental advantages of Aqueous based materials such as low toxicity, high flash-point and biodegradability.
- 2) Wide range of process applications from manual localised cleaning and batch type methods, through to fully automated screen cleaning systems. Usable at ambient temperatures. Does not require heating. Can be warm air dried or water rinsed with rinse residue warm air dry after.
- 3) Cleans a wide range of residues and will not foam or leave white residues after rinsing.
- 4) Environmentally safe. SC400 is free of Surfactants, Inorganic salts and Halogenated Compounds. SC400 is classed as a low vapour pressure type solvent and it has an ODP potential of 0. Surclean SC400 is non toxic and 100% Bio-degradeable.
- 5) Economical in use. SC400 will still work even when heavily contaminated and can be re-circulated through filtration to extend its life. No chemical additions are needed to maintain its condition.
- 6) Safe and pleasant to use. SC400 is very low odour, has low flammability and is safe for operators.
- 7) Exceptionally good compatibility with Screen and Stencil attachment adhesives. PH neutral formulation prevents damage to Screen and Stencil Frames.

APPLICATION

Screenclean 400 is designed for use in a wide range of processes. Process times will vary according to process and residue characteristics. SC400 can be air dried by air knives and heated air or rinsed with either tap or D.I. Water and then warm air dried at temperatures up to 50 °C/(122 °F).

Screenclean 400 is used until the build up of residues is too concentrated in the process, to allow continued cleaning or if rinsing is used, the rinse stage is unable to cope with the level of contamination. Rinsing of Stencils can be carried out by using tap water. Rinsing of mis-printed PCB's with D.I. water is preferable. Recirculation of SC400 through progressive filters down to 5 microns can greatly extend the materials in process life.



SOLDER CONNECTION

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

Processing - Cleaning - Immersion type systems

Fully immerse Screen in the cleaning tank. SC 400 does not require heating. Natural heating due to mechanical agitation within the process will not harm the material and can even reduce the cycle time. Agitation of the solution using spray under immersion or ultrasonics, where available, is particularly beneficial. Process times vary according to the residue and the particular cleaning processes, but are typically 3 to 12 minutes excluding drying or rinse/dry stage.

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 used as a guide. SC400 does not show tendencies to produce micro aerosols or create fume vapor, however, where fitted, process fume extraction should also be utilised.

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 50 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

Uncured Low solids Flux residues - Good

Uncured Rosin/Modified Resin based Flux residues - Acceptable

Misprinted Solder Paste - Very Good

Uncured Misprinted Adhesive - Very Good

PHYSICAL/CHEMICAL PROPERTIES

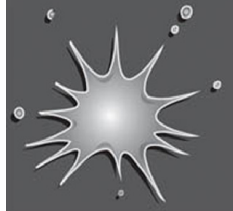
Appearance:	Colourless liquid
Flash Point:	59°C
Relative Density (gm/cm):	0.77 (@ 20°C)
Surface Tension (mN/m):	23.8 (@ 20°C)
Boiling Range:	155-177°C
Flammability:	Low
Ph Value:	Neutral
Operating Temperature Range:	Ambient
Solubility in Water:	Miscible

MAINTENANCE OF SOLUTIONS

Screenclean 400 can be used in a contaminated state until residue saturation levels cause either a fall off in cleaning action or the optional rinsing stage 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 the 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.



SOLDER CONNECTION

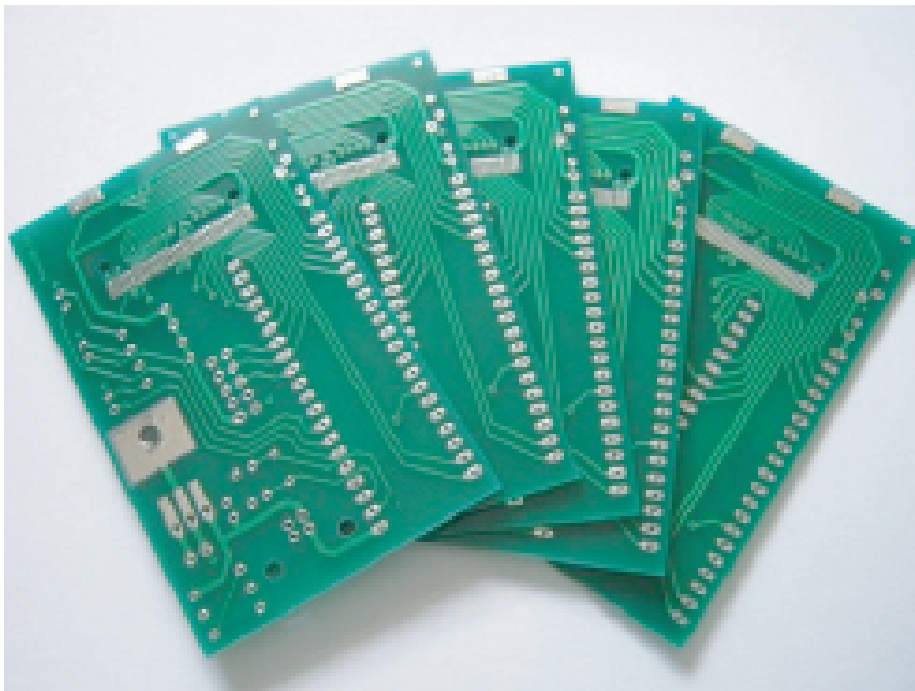
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AVAILABILITY

Screenclean 400 is available in 10 litre containers or as a range of presaturated Stencil wipes, supplied in tubs of 200 wipes.

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.



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