SURCLEAN
Electronic Production Materials
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Surclean SC2500 Cleaner - General Description

Surclean SC2500 is a high performance Aqueous based cleaner for fast, effective removal of post Solder Flux Residues. It can also be used for the removal of uncured Solder Paste and Adhesive from misprinted PCB's. Because it is free from Surfactants it does not degrade in use. SC2500 is available as a concentrate or pre-diluted ready for use, according to the type of cleaning system and the residues to be removed.

Main Characteristics of SC2500

1) Powerful action with the cleaning power of Solvent Cleaners combined with the safety and environmental advantages of Aqueous based materials.

2) Wide range of process applications from manual cleaning and batch type methods, through to large automated inline spray type systems. Usable from 40 deg. C through to 80 deg. C.

3) Cleans a wide range of residues and will not foam or leave white residue after rinsing.

4) Environmentally safe. SC2500 is free of Surfactants, Inorganic salts and Halogenated Compounds SC2500 is 100% Biodegradable.

5) Economical in use. SC2500 is diluted with water.

6) Safe and pleasant to use. SC2500 is very low odor, non flammable and has very low toxicity.

General Process Application Data

Surclean SC2500 is designed to use in a four stage process. Typical process times shown will vary according to process and residue characteristics. SC2500 can be used in a contaminated state until residue saturation inhibits cleaning or the first rinse stage is unable to cope with contamination levels. Recirculation of the solution through filters down to 5 microns will extend its working life. In spray type inline systems, topping up is sometimes sufficient to maintain the solution due to carry over losses. Dilution levels of SC2500 concentrate vary according to requirements but are typically a minimum of 15% and up to a maximum of 30% in DI water.

Processing - Stage 1 Cleaning - Immersion Type Systems

Fully immerse work in the cleaning tank. SC2500 must be heated to a min temp of 40 degrees C. A reduction in cleaning time is possible if the temperature is increased up to a maximum of 80 deg. C. Agitation of the solution using spray under immersion or ultrasonics (where allowed) is beneficial. Process times vary according to the residue and cleaning process but are typically 3 to 12 minutes.

Processing - Stage 1 Cleaning - Inline Conveyer Spray 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. SC2500 does not shown tendencies to produce micro aerosols, however process fume extraction should be utilized.

Processing - Stage 2 - Rinse

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

Processing - Stage 3 - Rinse

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

Processing - Stage 4 - Drying

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

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Cleaning Applications - Residue Types

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

SC2500 - Physical Characteristics	
Relative Density (gms/cubic CM) measured at @ 20 deg. C.	0.92
Surface Tension (mN/m) measured at @ 25 deg. C.	30.0
Boiling Range	93-225
Flash Point	None
Flammability	Non Flammable
Ph Value	11.5 typ
Operating temperature range	40-80 deg. C.
Solubility in water	Miscible
Typical dilution ratios	15% min. up to 30% max.

Maintenance of SC2500 Solution

SC2500 can be used in a contaminated state until residue saturation levels cause either a fall off in cleaning action or the first stage rinse section is no longer able to rinse the cleaning solution and contaminant away. Deterimining 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 license conditions or by specialist waste collection contractors, e.g. Biffa PLC