

TOPKLEAN™ EL 20A



Defluxing cleaner in co-solvent process

BENEFITS

TOPKLEAN™ EL 20A has been specially developed for the cleaning of solder paste residues and all types of solder fluxes as well as misprinted solder pastes on PCBs.

The use of **TOPKLEAN™ EL 20A** as a co-solvent together with NOVEC™ HFE highly increases its cleaning and drying performances. It is a new generation cleaner especially formulated to remove all types of baked-on flux residues and contaminants (fingerprints, dust, etc) left on printed circuit board assemblies or semiconductor modules. Its high wetting performance permits to efficiently remove new lead free soldering pastes and fluxes found in the market and to clean miniaturized designs in difficult access areas.

SPECIFICATIONS

CHARACTERISTICS	Unit	Value	Test method
Flash point (PMCC)	°C	65	ASTM D 93
Density at 20°C	Kg/m ³	800	ASTM D 4052

CHARACTERISTICS

PROPERTIES	Unit	Test method	Value
Aspect		Visual	Colourless liquid
Vapour pressure at 20°C/50°C)	Pa	No standard method	100
Viscosity at 25°C	mm ² /s	ASTMD 445	1.6
Boiling range	°C	ASTM D1078	174-199
Water content	% (weight)	ASTM E1364	max. 0,1
Presence of aromatic compounds	% (weight)	SMS 2728	max. 0,1
NVR	g/100 ml	ASTM D1353	max. 0,01
Relative evaporation rate	nBuAc-1	ASTM D3539	0.06
Miscibility in water	-	-	Not miscible

ASTM methods are published by the American Society for Testing and Materials, 1916 Race street, Philadelphia, Pa 19103, USA and are available in Europe from ASTM European office, 27-29 Knowl Piece, Wilbury Way, Hitchin, Herts, SG4 OSX, UK.

DIN methods are published by Beuth Verlag GmbH, Burggrafenstrasse 4-7, D1000, Berlin, Germany.

PROCESS PARAMETERS

INVENTEC has designed a non flammable solvent based process in vapour phase equipment for defluxing of solder paste residues after die attach, flip chip or SMT reflow process.

Application guideline and Recommendations – Mixed Co solvent process

Step 1 : CLEANING	Topklean™ EL 20A (70%) and Novec™ 71 IPA(30%) at 66°C
Step 2 : RINSING	Novec™ 71 IPA at 45°C to 50°C
Step 1 : DRYING	Novec™ 71 IPA at 55°C (vapour phase)

Application guideline and Recommendations – Separated Co solvent process

Step 1 : CLEANING	Topklean™ EL 20A pure at 50°C
Step 2 : RINSING	Novec™ 71 IPA at 55°C
Step 3 : RINSING	Novec™ 71 IPA at 45°C to 50°C
Step 4 : DRYING	Novec™ 71 IPA at 55°C (vapour phase)

PCBA defluxing is a best practice recommended prior to the application of Conformal Coating. Boards are completely dried after co-solvent process. No need for additional baking or curing

Cleaning performance complies with the following standards: IPC-A-610E Visual Cleanliness/ J-STD-001 Ionic cleanliness/ SIR by IPC-TM 650 2.6.3.7 and DIN 32513

PACKAGING

Drum container

20 Lt and 200 Lt

STORAGE & SHELF LIFE

Product should be stored in sealed original container below 50°C. Shelf life in sealed container: 18 months

HSE

TOPKLEAN™ EL-20A is not regarded as a flammable product, but as a burnable one. All relevant measures against fire and risks must be fulfilled.

Avoid contact with eyes and skin.

TOPKLEAN™ EL-20A has a low environmental impact, emissions are very low at operating temperatures. It does not harm the ozone layer and is easily biodegradable.

TOPKLEAN™ EL-20A can be recycled by vacuum distillation without affecting composition and properties.

Please refer to the Material Safety Data Sheet before use.

INVENTEC Material Safety Data sheets can be found at www.quickfds.com

No issues when used as recommended.

Although the conformity to ROHS 2002/95CE applies EQUIPMENT put on the market and not a component in particular, we warranty that this product contains less than 0.1% of mercury, lead, chromium VI, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) and less than 0.01% for the cadmium, in accordance with the decision of The European Commission dated 18/08/2005, fixing the maximal concentration values.

This data is based on information that the manufacturer believe to be reliable and offered in good faith. In no event will INVENTEC be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.