

# TOPKLEAN™ EL-60



## Electronic cleaner

## FEATURES

**TOPKLEAN™ EL-60** has been specially developed for the removal of flux residue and undesirable contaminants from printed circuit boards assembled in the electronic industry.

**TOPKLEAN™ EL-60** is a colourless and aromatic-free cleaning agent. It is based on oxygenated solvents.

**TOPKLEAN™ EL-60** easily cleans solder paste and uncured adhesive from stencils and misprinted boards.

## SPECIFICATIONS

	Value	Method
Flash point (PMCC)	+ 64°C	ASTMD D93
Density at 25°C	913 kg/m <sup>3</sup>	ASTMD 052

## CHARACTERISTICS

**TOPKLEAN™ EL-60** is free from aromatic, heavy metal and chlorinated compound.

It has therefore less hazard and less impact on the environment than the traditional electronic cleaners based on halogen and alcohol.

Properties	Unit	Value	Test method
Aspect	-	colourless	Visual
Boiling range	°C	175 -195	ASTM D1078
Vapor pressure at 20°C	hPa(mbar)	0.7	No standard method
Water content	% wt	max. 0.1	ASTM E1364
Aromatics	% wt	max. 0.01	SMS 2728
Non volatile residue	g/100 ml	max. 0.01	ASTM D1353
Solubility in water	-	partially soluble	-

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.

## PACKAGING

Can	5 L or 20 L
Drum	200 L

## STORAGE & SHELF LIFE

Suitable materials for the storage are mild steel, stainless steel and polyethylene.  
Keep the product in closed container.  
Shelf life : 18 months.

## PROCESS PARAMETERS

**TOPKLEAN™ EL-60** is an effective cleaning agent for the removal of rosin, no-clean and water soluble solder fluxes and undesirable residues from printed circuit boards.

It can also be used for the removal of solder pastes from stencils, misprinted circuits, uncured surface mount adhesives like epoxy unpolymerized glues and circuit assemblies requiring additional treatment.

**TOPKLEAN™ EL-60** quickly dissolves typical electronic contaminants from manual repairs.

The most important properties of **TOPKLEAN™ EL-60** are its high cleaning efficiency for most of the solder flux residues, the good compatibility with components on the printed circuit boards, the relatively fast evaporation and the high flash point compared to the usual cold cleaners such as isopropyl alcohol.

\* For cleaning of sensitive plastics, it is recommended to make some preliminary tests before using **TOPKLEAN™ EL-60**.

## HSE

Properties	Unit	Value	Test method
Hazard Class	-	AIII	VbF Germany
Lower explosion limit in air (20°C)	% v/v	0,85	DIN 51649
Upper explosion limit in air (150°C)	% v/v	10,4	DIN 51649
Auto Ignition Temperature	Celsius	> 165	DIN 51794

**TOPKLEAN™ EL-60** has a low environmental impact, and the emissions are very low at operating temperatures compared to usual IPA cleaner and others. It does not harm the ozone layer and is readily biodegradable.

Contact with skin and eyes should be avoided.

All relevant measures against fire and risks must be fulfilled. When handling or coming into contact with the product, wear suitable personal protection as recommended in Safety Data Sheet.

**TOPKLEAN™ EL-60** can be collected and recovered or disposed easily as waste oil by outside contractors. For full advice, please contact INVENTEC.

Please refer to the Material Safety Data sheet before use.

No issues when used as recommended.

*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.*

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