

# ZESTRON® CO 150

## Precision cleaning medium for water-free Co-Solvent processes



ZESTRON® CO 150 is a solvent-based cleaning agent developed for the use in ultrasonic dip tank processes. ZESTRON® CO 150 can be used undiluted as a pre-cleaner or as a Co-solvent mixture in combination with a HFE-agent. ZESTRON® CO 150 is especially suitable for removing flux residues from leaded as well as lead-free NoClean solder pastes from electronic assemblies and leadframe-based discret devices.

Areas of application: PCB cleaning		Further information on this product:  <b>Technical Information sheet 2</b> Overview of all fluxes and solder pastes tested <b>Technical Information sheet 3</b> Overview regarding material compatibility
Low solid flux residues	+	
Rosin-based flux residues	++	
Water soluble flux residues	0	
Misprinted boards		
Solder paste (unsoldered)	0	

++ highly recommended, best results      + recommended      0 possible

### Free-of-Charge Cleaning Trials & Surface Analytics at ZESTRON's Technical Centers



Free-of-charge cleaning trials can be performed at one of ZESTRON's Global Technical Centers. ZESTRON's European, North American and Asian Technical Centers feature spray-in-air, ultrasonic or spray-under-immersion processes. This provides an extensive overview on all available processes by leading international equipment manufacturers.



Upon completion of the cleaning trials, extensive analytical tests such as ionic residue measurements can be performed.

Please consult with ZESTRON's Application Technology Centers regarding future cleaning trials: Phone +49-841-635-26; Email: techsupport@zestron.com

### Advantages compared to other cleaners:

- Good cleaning results with lead-based and lead-free solder pastes
- ZESTRON® CO 150 guarantees a stable cleaning process as it avoids over-foaming of the cleaning stage in an HFE Co-solvent process.
- Stabilize the cooling zone and helps to minimize the HFE consumption.
- In combination with a HFE-process, ZESTRON® CO 150 enables a totally water-free cleaning process and fast residue-free drying.
- Low ionic contamination values can be achieved despite the water-free process.

Please refer to the material compatibility list (Technical Information 3) before cleaning plastics.

Process	Cleaning	Rinsing	Drying
Ultrasonic	ZESTRON® CO 150 or ZESTRON® CO 150/ Novec™ HFE-Mixture	Novec™ HFE	Self drying in the cooling zone
Spray-under-immersion	ZESTRON® CO 150 or ZESTRON® CO 150/ Novec™ HFE-Mixture	Novec™ HFE	Self drying in the cooling zone

## Technical Data

Please note that the information below represents ZESTRON® CO 150 at a 100 % concentration.

Density	(g/ccm) at 20°C/68°F	0.817
Surface tension	(mN/m) at 25°C/77°F	23.8
Boiling range	°C/°F	171-214 / 340-417
Flash point	°C/°F	68 / 154
pH-Value	10g/l H <sub>2</sub> O	3.2
Vapor pressure	(mbar) at 20°C/68°F	0.668
Cleaning temperature	°C/°F	50 – 75 / 122 – 167
Application concentration	in Combination with 3M™ Novec™ HFE	50 – 70 %
HMIS Rating	Health-Flammability-Reactivity	1 – 2 – 0

## LEAD-FREE COMPLIANT



ZESTRON® CO 150 meets the RoHS & WEEE guidelines, current worker safety standards as well as the actual applicable environmental requirements. ZESTRON voluntarily avoids the use of critical substances during product development.



Extensive tests confirmed the qualification of ZESTRON® CO 150 for the cleaning of lead-free solder pastes. For detailed results please request our Technical Information 2.

## Filter recommendation:

To further improve the long bath life of ZESTRON® CO 150, filtration is recommended. For details, please request our "Filter Recommendation" sheet.

## Environmental, health and safety regulations:

Refer to the MSDS for specific handling precautions and instructions.

## Availability/Storage:

ZESTRON® CO 150 is available in 1L bottles, 5L or 25L containers and 200L drums. Store ZESTRON® CO 150 in the original container at a temperature between 5-30°C / 41-86°F. The product has a minimum shelf life of 5 years in factory sealed containers.

## Disposal:

For further information please consult ZESTRON's Application Technology team. (Phone +49-841-635-26; Email: techsupport@zestron.com)

## Cleaning standards:

Electronic assemblies cleaned with ZESTRON® CO 150 in a ZESTRON specified process meet the following industry standards:

- IPC 610 Visual cleanliness
- J-STD 001D Ionic cleanliness
- IPC-TM 650 and DIN 32513 (surface resistance)
- J-STD 003 solderability