

# ZESTRON® ES 200

## Strong adhesive remover for ultrasonic applications



ZESTRON® ES 200 is a modified alcohol cleaning agent designed to remove epoxies (SMT adhesives and conductive adhesives) from tools (particularly dispensing needles) and electronic manufacturing substrates in ultrasonic cleaning equipment.

Areas of application: Maintenance cleaning		Further information on this product:
SMT adhesive	++	<b>Technical Information sheet 3:</b> Overview regarding material compatibility
Conductive adhesive	++	
Other adhesives	+	
Rosin based flux residues	o	

++ highly recommended, best results

+ recommended

o possible

### Free-of-Charge Cleaning Trials 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.

### Advantages compared to other solvent cleaners:

- ZESTRON® ES 200 has a high bath loading capability and therefore a long bath life as well as low maintenance costs.
- Specially formulated to remove even persistent adhesive residues.
- Of all ZESTRON® products, ZESTRON® ES 200 is most suitable for the removal of adhesives.
- Due to its high flash point, ZESTRON® ES 200 can be used in ultrasonic baths at a temperature between 20 - 60°C (68 - 140°F).
- To ensure short drying time, rinsing with ZESTRON® HC or water is recommended

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

Process	Cleaning	Rinsing	Drying
Ultrasonic	ZESTRON® ES 200	ZESTRON® HC or water	Hot or circulated air

Technical Data		
Density	(g/ccm) at 20°C/68°C	1.11
Surface tension	(mN/m) at 25°C/77°F	37
Boiling range	°C/°F	204 - 242 / 400 - 468
Flash point	°C/°F	90 / 194
pH-Value	10g/l H <sub>2</sub> O	Neutral
Vapor pressure	(mbar) at 20°C/68°F	< 1
Solubility in water		miscible
Cleaning temperature	°C/°F	20 - 60 / 68 - 140
Application concentration	Ready to use	Pure
HMIS Rating	Health-Flammability-Reactivity	1 - 2 - 0

**LEAD-FREE COMPLIANT**



ZESTRON® ES 200 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.

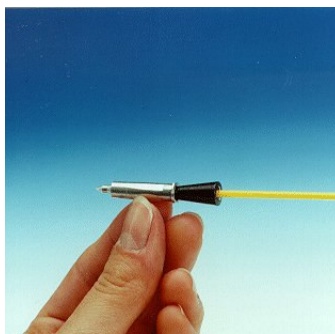


Extensive tests confirmed the qualification of ZESTRON® ES 200 for the cleaning of lead-free solder pastes. For detailed results, please request our Technical Information Sheet 2.

**Typical application:**



Cleaning of dispensing needles with ZESTRON® ES 200 in an ultrasonic tank



Rinsing of dispensing needles with ZESTRON® HC (see alternative product recommendation)

**Environmental, health and safety regulations:**

ZESTRON® ES 200 is formulated free of halogenated compounds and is biodegradable. No special precaution for handling ZESTRON® ES 200 is required.

**Availability/storage:**

ZESTRON® ES 200 is available in 1L bottles, 5L or 25L containers and 200L drums. This product is a non-hazardous.

Store ZESTRON® ES 200 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.

**Alternative product recommendation:**

For manual cleaning of dispensing needles we recommend ZESTRON® HC.



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