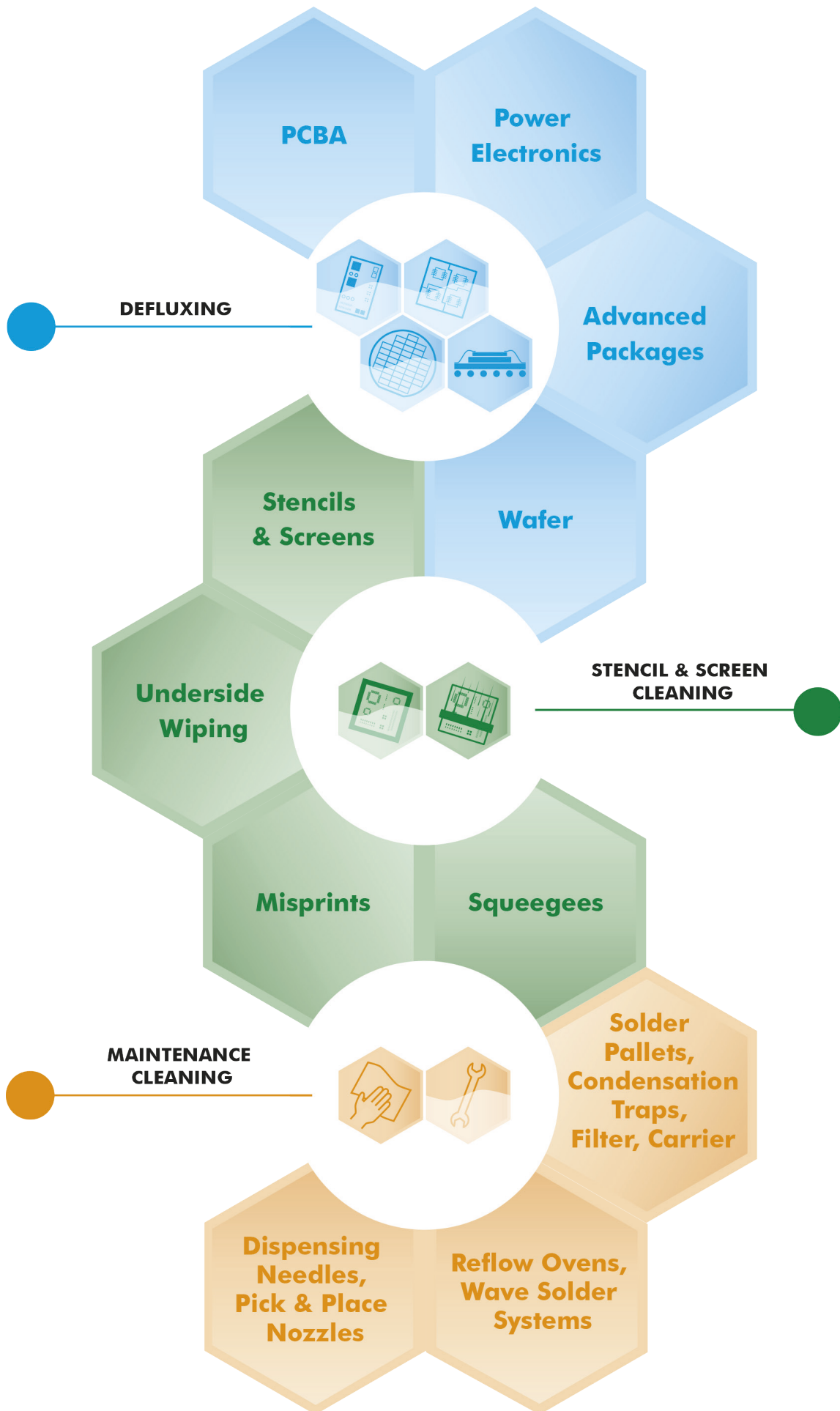
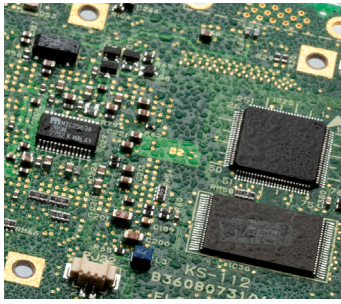


Cleaning Agent Overview

ZESTRON
High Precision Cleaning



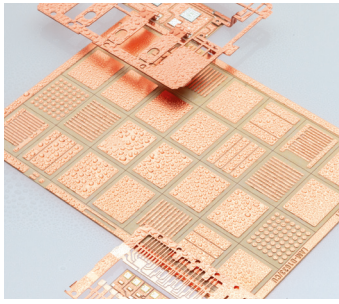


PCBA Defluxing

A wide variety of water-based and solvent-based cleaning agents is available for defluxing of PCBAs. The product portfolio features several technologies, providing excellent cleaning performance on the latest solder pastes and fluxes across all common cleaning processes. This includes products with neutral as well as alkaline pH values, offering solutions with excellent material compatibility for any type of component and substrate.

Product technology	Cleaning agents	Application			
		PCB (FR4) / Multilayer	Flexible PCB	Ceramic Hybrid	Aluminium Basis
MPC® (water-based)	VIGON® A 201	●	●	●	
	VIGON® N 600	●	●	●	●
	VIGON® N 640	●	●	●	●
	VIGON® N 680	●	●	●	●
	VIGON® NX 728	●	●	●	●
	VIGON® PE 180	●	●	●	●
	VIGON® PE 190A	●	●	●	●
	VIGON® PE 194A	●	●	●	●
	VIGON® PE 195A	●	●	●	●
	VIGON® PE 196A	●	●	●	●
	VIGON® ME 100A	●	●	●	●
	VIGON® A 200	●		●	
	VIGON® A 250	●		●	
	VIGON® US	●		●	
FAST® (water-based, surfactant)	ATRON® AC 205	●	●	●	
	ATRON® AC 207	●	●	●	
	HYDRON® WS 400	●	●		
Solvent	ZESTRON® FA+	●	●	●	●
	ZESTRON® VD	●	●	●	●
	ZESTRON® CO 150	●	●	●	●
	ZESTRON® DW	●	●	●	●
	VIGON® EFM	●		●	●

- Dedicated application – product specifically designed for this application
- Suitable application – product is recommended for this application

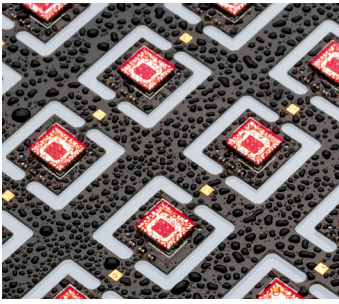


Power Electronics Defluxing

ZESTRON's product portfolio for Power Electronics, such as power modules/DCBs, leadframes and discrete devices, includes both water-based and solvent-based cleaning agents featuring various technologies. They each provide excellent cleaning performance and material compatibility. Alkaline as well as pH-neutral cleaning agents provide solutions for any material, such as sensitive metals, dies and passivation layers, as well as excellent deoxidation of Cu substrates, resulting in the best conditions for subsequent wire bonding or molding.

Product technology	Cleaning agents	Application		
		High Power LEDs / Automotive	DCB / Power Modules / IPM / IGBT	Leadframes / Discretes
MPC® (water-based)	VIGON® PE 200	●	●	●
	VIGON® PE 215N	●	●	●
	VIGON® PE 216A	●	●	●
	VIGON® PE 304N	●	●	●
	VIGON® PE 305N	●	●	●
	VIGON® PE 180	●	●	●
	VIGON® PE 190A	●	●	●
	VIGON® PE 194A	●	●	●
	VIGON® PE 195A	●	●	●
	VIGON® PE 196A	●	●	●
	VIGON® A 200		●	●
	VIGON® A 250	●		
	VIGON® A 201	●		
	VIGON® N 600	●	●	●
	VIGON® ME 100A		●	●
HYDRON® (single-phase, water-based)	HYDRON® SE 220	●	●	●
	HYDRON® SE 230A	●	●	●
FAST® (water-based, surfactant)	ATRON® AC 205	●		
	ATRON® AC 207	●	●	●
Solvent	ZESTRON® FA+	●	●	●
	ZESTRON® DW	●	●	●
	ZESTRON® VD			●
	ZESTRON® CO 150		●	●

- Dedicated application – product specifically designed for this application
- Suitable application – product is recommended for this application

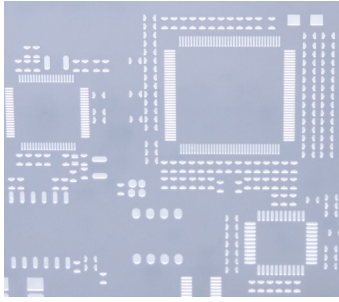


Package and Wafer Cleaning

ZESTRON offers several water-based and solvent-based cleaning agents for Advanced Packages, focusing on defluxing after die attach of FlipChips, SiP and CMOS prior to underfilling, wire bonding and molding, and after wafer bumping. Excellent cleaning performance under low standoffs and compatibility with various materials are key features, ensuring proper, void-free underfill wetting, good wire bonding quality and preventing mold delamination or wafer bump pitting.

Product technology	Cleaning agents	Application					
		SiP	Flip Chip BGA / 2.5/3D TSV	BGA	Single Components i.e. CoB, MEMS	CMOS / Camera Modules	Wafer
MPC® (water-based)	VIGON® N 600	●	●	●	●		
	VIGON® A 201	●	●	●	●	●	
	VIGON® A 250	●	●	●	●	●	
	VIGON® US	●	●	●	●	●	
HYDRON® (single-phase, water-based)	HYDRON® SE 220	●	●	●	●	●	●
	HYDRON® SE 230A	●	●	●	●	●	●
FAST® (water-based, surfactant)	ATRON® AC 205	●	●	●	●	●	
	ATRON® AC 207	●	●	●	●		
water-based	ATRON® AP 125A	●	●	●	●	●	
Solvent	ZESTRON® FA+	●	●	●	●	●	

- Dedicated application – product specifically designed for this application
- Suitable application – product is recommended for this application

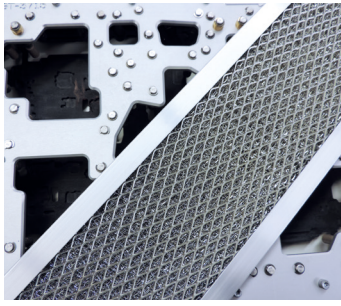


SMT Stencil, Screen and Misprint Cleaning

A complete line of water-based and solvent-based cleaning agents is available to remove solder pastes from stencils, screens and squeegees including dedicated solutions for SMT adhesives, thick film pastes, thermally conductive compounds as well as specific processes such as underside wiping in SMT printers or misprint cleaning.

Product technology	Cleaning agents	Application						
		Fluxes	Solder Pastes	SMT-Adhesives	Thick Film Pastes	Thermally Conductive Compounds, Sinter Pastes	Underside Wiping in SMT-Printers	Squeegees
MPC® (water-based)	VIGON® SC 200	●	●	●			●	●
	VIGON® SC 202	●	●	●				●
	VIGON® SC 210	●	●	●				●
	VIGON® SC	●	●	●			●	●
	VIGON® UC 160		●				●	
	VIGON® TC 150					●		●
HYDRON® (single-phase, water-based)	HYDRON® SC 300	●	●	●			●	●
Solvent	ZESTRON® SD 100		●				●	●
	ZESTRON® SD 301	●	●	●	●		●	●
	ZESTRON® SW		●	●			●	
	ZESTRON® SD 300	●	●	●	●		●	●

- Dedicated application – product specifically designed for this application
- Suitable application – product is recommended for this application



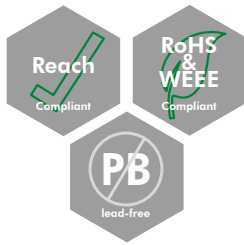
Solder Pallet, Condensation Trap & Tool Cleaning

ZESTRON offers a complete line of water-based, surfactant-based and solvent-based cleaning agents for solder pallets, condensation traps, carriers, solder ovens, dispensing needles, coating frames and other machine parts to remove baked-on fluxes and emissions from assemblies caused by the soldering process, unsoldered solder paste and SMT adhesives.

Product technology	Cleaning agents	Automatic	Manual	Condensation Traps, Filter	Application				
					Solder Pallets, Frames, Carrier	Machine Parts	Reflow Ovens, Wave Solder Systems	Dispensing Needles, Pick & Place Nozzles	Coating Frames
FAST® (water-based, surfactant)	ATRON® SP 200	●		●	●	●			
	ATRON® SP 300	●		●	●	●			
	ATRON® SP 400	●		●	●	●			
water-based	ATRON® DC	●							●
MPC® (water-based)	VIGON® RC 303		●		●	●	●		
	VIGON® SC 210	●						●	
Solvent	ZESTRON® HC		●					●	

- Dedicated application – product specifically designed for this application
- Suitable application – product is recommended for this application

Environmental, Health & Safety Regulations



All ZESTRON cleaning agents are compliant with RoHS I, II & III/WEEE, GHS/CLP, and REACH and do not contain any substances included in the SVHC or S.I.N. list. Only the most environmentally-friendly and worker-safe raw materials are used.

For additional information documents, please contact us at:
Europe: info@zestron.com / South Asia: infoasia@zestron.com

Cleaning Technologies & Brands



Solvent Technology - ZESTRON

ZESTRON® products are modern solvents developed for high-end cleaning applications. They provide a wide process window for the removal of various contaminations, offer a long bath life and the highest health & safety standards compared to simple alcohols or halogenated solvents.



FAST® Technology - ATRON

ATRON® products are new generation surfactants based on the Fast Acting Surfactant Technology. They provide exceptional cleaning performance, especially at short contact times, and a high bath loading capacity compared to conventional surfactants.



MPC® Technology - VIGON

VIGON® products are based on the Micro Phase Cleaning Technology. They are water-based, surfactant-free products providing a wide process window for various cleaning applications and a very long bath life time resulting in low operating costs. They are non-flammable and have low VOCs.



Single-phase Technology - HYDRON

HYDRON® products are water-based, single-phase cleaning agents offering excellent processability in the presence of different cleaning process limitations and with regards to process handling. They offer a very good rinseability and can easily be filtered to ensure an extended bath life time and low operating costs.

Additional available Product Information

- » **Technical Information**
Information about the product including application, advantages and physical data
- » **Material Compatibility**
Overview of material compatibility with components, parts and cleaning machines
- » **Safety Data Sheet**
Information on composition, handling precautions, transport and storage
- » **MPC® Technology Flyer**
Information about the water-based cleaning technology
- » **FAST® Technology Flyer**
Information about the surfactant-based cleaning technology
- » **HYDRON® Technology Flyer**
Information about the water-based, single-phase cleaning technology

If you need more information about products for bath monitoring, surface analytics and cleaning agent regeneration and recovery, please review the brochure **Products - Process Optimization**.