



WORLDWIDE ENVIRONMENTALLY RESPONSIBLE CLEANING TECHNOLOGIES

KYZEN.COM



ELECTRONICS CLEANING  
TECHNOLOGY



*"Anyone can create a cleaning chemistry.  
But it takes more than science to create  
a cleaning solution that's right for you."*

*- Dr. Mike Bixenman*



We believe cleaning is more than just getting the science right. Our goal, first and foremost, is to help you solve cleaning process challenges. Whether you need to devise a cleaning process or achieve better results, KYZEN can help. We strive to:

- *Advise you on your cleaning processes so you get the best solution for your needs*
- *Provide easy access to cleaning experts who take time to understand your specific applications, materials and challenges*
- *Analyze your cleaning problem from every angle to find the right solution*
- *Back up our world-class service by engineering the most effective, environmentally friendly cleaning technologies to make your job easier*

This commitment to continuous improvement is what has helped customers around the world succeed in their businesses for more than three decades.

**32+YEARS** CLEANING EXPERIENCE



PEOPLE STAY IN A  
WORK ENVIRONMENT  
THAT INSPIRES CARE,  
VALUE AND INNOVATION.

#### ENVIRONMENTALLY RESPONSIBLE CLEANING TECHNOLOGIES – ANYTIME, ANYWHERE

KYZEN has not only transformed the electronics manufacturing cleaning industry – we also helped build it. In fact, we were the first to create many hi-tech process control products. Innovation this profound isn't something we keep to ourselves. So as the electronics assembly industry globalized, so did KYZEN. Through talented people, best-of-class solutions and a global presence, we provide on-the-ground technical support for our customers' processes – wherever that ground may be.

#### CLEANING EXPERTS ACROSS

**30** STATES AND  
PROVINCES

**13** COUNTRIES

**5** APPLICATION  
LABORATORIES  
AROUND THE WORLD

**6** CONTINENTS



# WHEN YOU ARE WILLING TO TAKE ON THE MOST CHALLENGING PROBLEMS, YOU CREATE THE BEST CLEANING SOLUTIONS.

We approach your problems as if they are our own. Others may know that you need balanced cleaning, but we also know:

- *Why you need it*
- *How it needs to work within your limitations*
- *Where the process problems are occurring*
- *What optimizations can be made*
- *Your comfort level with installing it*

This deep technical understanding of your company and manufacturing needs is only attained where science and care converge. And that is KYZEN. We respond quickly, show up when you need us and don't leave until the problem is solved.

*"Your job depends on solving your cleaning problem – so does ours. Together we'll work to understand and meet your cleaning needs to keep your production running."*

*- Haley Reid, Chemist*

## CLEANING SOLUTIONS FOR ELECTRONICS MANUFACTURING

KYZEN proactively connects breakthrough science with dedicated care to design cleaning solutions that evolve alongside the electronics manufacturing industry. At the same time, we keep up with the latest solder technology, be it no clean, water soluble or lead-free. We specialize in precision cleaning chemistries to address a wide diversity of contaminants - all while providing the highest levels of compatibility with components, metals, plastics and coatings.

### OUR ELECTRONICS AND ADVANCED PACKAGING CLEANING SOLUTIONS:

Improve performance *Have less environmental impact*

**LOWER COSTS**

Are safe to use



# FREE EXPERT TECHNICAL HELP, WHEN AND WHERE YOU NEED IT

If you have technical cleaning questions, the team at KYZEN has answers.

Contact us any time for free support in solving your electronics materials, process and advanced packaging problems.

## CONTACT:

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# PROCESS CONTROL & OPTIMIZATION

## PROCESS CONTROL PRODUCTS

### KYZEN PCS

The KYZEN PCS is a true process control system that monitors and automatically reacts to the dynamic changes that occur in wash bath concentration. The PCS will maintain your cleaning system set process parameters and optimize your chemical usage.

### KYZEN DEMISTER

The KYZEN Demister significantly reduces the chemical consumption and emissions from your cleaning process. The Demister is specifically designed to combat evaporation and recover the lost cleaning solution, protecting the environment and reducing consumption.

### KYZEN ANALYST™

Real-time, automatic concentration monitoring and reporting. The KYZEN ANALYST™ was developed in response to extensive research with process engineers who run cleaning applications and are responsible for productivity and quality every day of the week.

### KYZEN CHEMTROLLER

A reliable and simple to use automated chemical control system that works on a special water-driven proportioning pump. Easy to install, the KYZEN Chemtroller requires no electricity or compressed air connections as the incoming water pressure powers the positive displacement pump. The KYZEN Chemtroller is a high-quality stainless steel chemical proportioner that is compatible with all KYZEN chemistries.

## PROCESS OPTIMIZATION SERVICES



### WASH BATH ANALYSIS / PROFILE

A single test or a 6-sample profile kit. Understanding the changes your wash bath goes through over its life cycle allows for greater predictability and routine maintenance scheduling, saving both time and money.

### CLEANLINESS TESTING SERVICES

Surface Insulation Resistance (SIR) Testing, Ion Chromatography (IC) Testing, SEM Scanning Electron Microscope and standard R.O.S.E. testing available in the KYZEN lab by experts in cleaning.

### CONTRACT CLEANING

Expert cleaning services for unexpected production increases, new product implementation, or when you just don't have a cleaning process in place.

### ON-SITE PROCESS AUDITS

We come to you and review your cleaning process from start to finish. During an On-Site Process Audit, KYZEN's engineering and field support team will come to your facility and review chemistry usage, rinse water quality, nozzle pressures and alignment, exhaust balancing, amperage draw for motors and blowers and more.

### RISK-FREE TRIALS

Let our process engineers determine the best process parameters and chemistry to help achieve desired results.

# ELECTRONICS ASSEMBLY CLEANING

## AQUEOUS SPRAY SYSTEMS

### AQUANOX® A4625 & A4625B (Aqueous Cleaning Solutions)

AQUANOX A4625 & A4625B are versatile aqueous cleaning chemistries designed to clean most flux residues while providing brilliant, mirrored solder finishes. Easy to use in batch and inline spray systems they are environmentally friendly, provide long tank life and are safe for multi-pass applications.

### AQUANOX® A4626 (Next Generation Aqueous Cleaning Solution)

AQUANOX A4626 is a next generation cleaning chemistry designed to quickly remove the latest polymeric no-clean flux residues, while providing superior results on traditional leadfree and eutectic tin-lead residues as well. Easy to use and control in batch and inline spray systems, AQUANOX A4626 is environmentally friendly, has a long tank life and is safe for multi-pass applications.

### AQUANOX® A4727 (Enhanced Aqueous Assembly Cleaner)

AQUANOX A4727 is engineered to be effective, stable and predictable, all day, every day. A4727 is designed to meet your performance cleaning requirements with advanced technology that gives a stable pH and predictable compatibility throughout its long bath life. Environmentally responsible, AQUANOX A4727 can be used at low concentrations to effectively remove even the toughest soils and rinse easily and completely in both inline and batch cleaning systems.

### AQUANOX® A4382 (OA Flux Residue Cleaning Chemistry)

AQUANOX A4382 is an advanced cleaning agent targeted at organic acid fluxes. De-Ionized water alone results in insufficient or inconsistent cleaning, however, A4382 completely removes all water-soluble residues and other possible manufacturing contaminates. AQUANOX A4382 will clean underneath low standoff or flush mount components and will improve your cleaning while remaining environmentally safe and compatible with your sensitive metals and alloys.

### AQUANOX® A4639 (Electronic Assembly Aqueous Solution)

AQUANOX A4639 is an engineered aqueous cleaner that is effective on a wide range of soils at low operating temperatures and concentrations. AQUANOX A4639 provides exceptional cleaning results and protection of metallic surfaces with minimal monitoring and no sump-side additives in batch cleaning systems.

# ELECTRONICS ASSEMBLY CLEANING

	SOILS REMOVED	PROCESS
<b>IMMERSION CLEANING</b>		
AQUANOX® A4651US	•	•
IONOX® FCR	•	•
IONOX® I3302	•	•
MICRONOX® MX2501	•	•
	OA / WATER SOLUBLE	NO CLEAN
		RMA / RA
		IMMERSION ULTRASONIC
		SPRAY UNDER-IMMERSION
		VAPOR DEGREASING

## IMMERSION SYSTEMS

### AQUANOX® A4651US (Low pH Ultrasonic Immersion Cleaner)

AQUANOX A4651US is a low pH aqueous cleaning solution designed exclusively for use in ultrasonic immersion cleaning systems. AQUANOX A4651US will provide brilliant solder joints with no sump side additives and cleans exceptionally well on the latest flux formulations in electronic assemblies.

### IONOX® FCR (High Strength, Semi-Aqueous Electronics Cleaner)

IONOX FCR is a high-strength, concentrated cleaner designed to be used in immersion agitation, ultrasonic or centrifugal systems. IONOX FCR effectively removes virtually all types of fluxes including rosin, water soluble, lead-free and low residue products. A water rinse is required to remove all traces of soils and cleaner residues from substrate surfaces.

### IONOX® I3302 (Broad Spectrum Electronics Cleaner)

IONOX I3302 is a semi-aqueous solvent blend designed to remove difficult flux and paste residues including lead-free, rosin, no-clean, tacky flux, as well as other common electronic assembly residues.

### MICRONOX® MX2501

(Engineered Vapor Cleaning Solvent for Electronics Assembly and Advanced Packaging)

MICRONOX MX2501 is an engineered precision vapor cleaning solvent designed as a drop-in replacement for modern era vapor degreasing equipment. MICRONOX MX2501 has "Zero" ozone-depletion potential and can replace TCE & TCA in many cleaning applications.

	SOILS REMOVED	PROCESS
<b>AQUEOUS PCB CLEANING</b>		
AQUANOX® A4625 & A4625B	•	•
AQUANOX® A4626	•	•
AQUANOX® A4727	•	•
AQUANOX® A4382	•	•
AQUANOX® A4639	•	•
	OA / WATER SOLUBLE	NO CLEAN
		RMA / RA
		SPRAY (INLINE)
		SPRAY (BATCH)



# ELECTRONICS ASSEMBLY CLEANING

## STENCIL CLEANING

### KYZEN® E5631 (Next Generation Stencil Cleaner)

KYZEN E5631 is a versatile, cost-effective solution used in all types of stencil cleaning processes including spray-in-air, ultrasonic and understencil wipe systems. KYZEN E5631 has been proven compatible with stencil foil, epoxy adhesives, frames, and mesh as well as the materials of construction found in stencil cleaning equipment.

### KYZEN® E5611 (Stencil and Misprinted Board Cleaner)

KYZEN E5611 is a cost-effective cleaning chemistry designed to be diluted for removing flux, solder paste and uncured adhesives from stencils and misprints. KYZEN E5611 has proven compatible with most standard stencil cleaning equipment.

**NOTE:** Also available in Ready to Use Dilutions

## UNDER-STENCIL / MANUAL WIPE

### KYZEN® E5631J (Ready to Use Understencil Wipe Cleaner)

KYZEN E5631J is a ready-to-use solution for removing raw solder paste from stencils both in online and offline stencil cleaning processes. E5631J is a cost-effective solution that quickly and efficiently cleans all types of raw solder pastes to make every print count. KYZEN E5631J is proven compatible with common stencils, cleaning equipment, and printer manufacturers.

### CYBERSOLV® C8882 (Understencil Wipe Stencil Cleaning Solvent)

CYBERSOLV C8882 is a fast-acting stencil cleaning solvent designed for the understencil wipe process. CYBERSOLV C8882 instantly dissolves all flux types within the solder paste, including water soluble, rosin and low residue no-clean fluxes.

### CYBERSOLV® C8622 (Safe / Effective IPA Alternative Solvent)

CYBERSOLV C8622 is a full-strength solvent blend specifically designed as an IPA alternative in stencil wiping and manual bench top cleaning applications. Easy to use, CYBERSOLV C8622 is applied in applications where IPA is typically used.

STENCIL CLEANING	SOILS REMOVED				PROCESS				
	OA / WATER SOLUBLE	NO CLEAN / RMA	MISPRINT UNCURED ADHESIVE	MISPRINT RAW SOLDER PASTE	UNDERSTENCIL WIPE	HAND-HELD ULTRA- SONIC TRANSDUCER	ULTRASONIC WASH WATER RINSE	ULTRASONIC WASH CLEANER RINSE	SPRAY-IN-AIR WASH WATER RINSE
KYZEN® E5611	•	•	•	•			•		•
KYZEN® E5631	•	•		•			•		
KYZEN® E5631J	•	•		•	•	•			
CYBERSOLV® C8882	•	•	•	•	•	•			
CYBERSOLV® C8622	•								

# ELECTRONICS ASSEMBLY CLEANING

## BENCHTOP AND MAINTENANCE CLEANING

		OA / WATER SOLUBLE	NO CLEAN / RMA	MISPRINT UNCURED ADHESIVE	RAW SOLDER PASTE	PROCESS
Oven	<b>CYBERSOLV® C8508</b>	•	•		•	ULTRASONIC
Wave Solder Finger Cleaner	<b>CYBERSOLV® C8502</b>	•	•		•	IMMERSION / SOAK
Process Tooling Cleaner	<b>KYZEN® E5325</b>	•	•	•	•	SPRAY
Process Tooling Cleaner	<b>KYZEN® E5322</b>	•	•	•	•	MANUAL
PCB Rework	<b>CYBERSOLV® 141-X</b>	•	•	•	•	

## BENCHTOP & MAINTENANCE

### CYBERSOLV® C8508 (Full-Strength Oven & Maintenance Cleaner)

CYBERSOLV C8508 is the latest generation spray cleaner for reflow ovens and general equipment maintenance cleaning. CYBERSOLV C8508 has been tested on the toughest baked on flux residues with great success and has proven effective on the latest lead free flux.

### CYBERSOLV® C8502 (Wave Solder Finger Cleaner)

CYBERSOLV C8502 is specially formulated to quickly remove all types of flux residues from wave solder fingers, reflow oven surfaces and general electronics production equipment. CYBERSOLV C8502 is also effective on rosin flux used on fabrication of dissimilar metals on industrial components.

### KYZEN® E5322 (Pallet and Process Tooling Cleaner)

KYZEN E5322 is a versatile off-line general maintenance cleaner formulated for wave solder, reflow oven systems, and associated tooling. KYZEN E5322 removes even the most difficult fluxes and solder pastes while compatible with most metals and materials that require maintenance. Including aluminum, copper and steel.

### KYZEN® E5325 (Spray-In-Air Pallet and Process Tooling Cleaner)

KYZEN E5325 is used in spray-in-air applications to effectively and efficiently perform off-line maintenance cleaning all while removing even the most difficult fluxes and solder pastes. KYZEN E5325 is engineered to reduce maintenance and machine down time while increasing production and reducing overall cost.

### CYBERSOLV® 141-X (Precision Solvent Bench-Top Cleaner)

CYBERSOLV 141-X is a precision cleaner blend of organic solvents that is safe and ready to use for bench-top electronics cleaning. CYBERSOLV 141-X is effective on a wide variety of soils typically found in electronic assembly and maintenance cleaning applications. **Note: Available in Aerosol and Bulk Packaging**





*Because we want you to achieve the highest levels of performance, we connect care with leading science to continuously improve, problem solve and create the most effective cleaning solutions to suit your specific needs.*



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