

EDITION: AMERICA/ENGLISH



**ELECTRONICS CLEANING  
TECHNOLOGY**

 **KYZEN**  
Where Science and Care Converge.



[KYZEN.COM](http://KYZEN.COM)

WORLDWIDE ENVIRONMENTALLY RESPONSIBLE CLEANING TECHNOLOGIES





# CLEANING IS MORE THAN JUST GETTING THE SCIENCE RIGHT.

**WE CARE.** That starts with getting the science right, but it goes way beyond that. At KYZEN, it means putting you, the customer first, no matter what. It means developing scientific processes that ensure you get the right solution for your needs. It means you'll work with KYZEN cleaning scientists who care enough to invest the time to fully understand your specific application, materials and challenges. At KYZEN, success means engineering the most effective, environmentally friendly cleaning technologies and solutions for you through the convergence of science and care. In fact, KYZEN is celebrated for its innovative design and development of award-winning cleaning technologies, and we have been since 1990. You can rest assured that when a KYZEN cleaning expert tackles your cleaning problem, he or she is taking the time and care to look at it in new ways, from every angle, so the right solution results. We guarantee it.

*"It's not enough to know that a customer needs a solution. We want to understand why they need it and how it can help them succeed in their business."*

KYZEN, our team of caring world-renowned cleaning scientists and our products, have been honored throughout the world with industry awards and, most importantly, loyal customers. KYZEN has been recognized with nearly 70 electronics industry awards, including several for multiple, consecutive years in categories ranging from new product engineering to customer service and environmental safety, among others. We are grateful for this recognition. Some of the awards and sponsoring organizations include:

- | GLOBAL TECHNOLOGY AWARD
- | CIRCUIT ASSEMBLY SERVICE EXCELLENCE AWARDS
- | CIRCUIT ASSEMBLY NEW PRODUCT INNOVATION AWARDS
- | SMT VISION AWARD
- | BEST COST OF OWNERSHIP AWARD
- | ADVANCED PACKAGING BEST NEW PRODUCT



# AWARD WINNING SCIENCE & CARE







# YOU ONLY BUILD THE BEST CLEANING SOLUTIONS IF YOU CARE ENOUGH TO TACKLE THE HARDEST PROBLEMS.

What sets KYZEN apart among cleaning technology companies? Beyond the fact that we are continuously honored for our innovation, products and services, it is the way we approach your problems as though they were our own. Others may know that you need a low surface tension solution. WE KNOW WHY you need it, how it needs to work within your distinct parameters, limitations and challenges, where the process problems are occurring, how the solution needs to be modified and your comfort level with installing it. This kind of in-depth knowledge of your company, technical and manufacturing needs is only attained when science and care converge. Care also means responding quickly, showing up anytime, anywhere in the world there is a problem and tackling it head-on until it is successfully resolved. It is what compels us to achieve the highest levels of performance. And, it is what motivates our world-renowned scientists and engineers to pursue and achieve the revolutionary research and innovation you need today and 20 years from now.

## CLEANING SOLUTIONS FOR ELECTRONICS MANUFACTURING

Rapidly evolving technological advances in electronics manufacturing continually demand cleaning chemistries and processes that quickly and reliably evolve and adapt along with them. KYZEN proactively connects breakthrough science with dedicated care to design environmentally friendly cleaning solutions that meet and exceed this need, all while keeping up with improving solder technology, be it no clean, water soluble or rosin. From PCB to Stencil Cleaning, on or off the Printer, from wave fingers and reflow ovens to benchtop cleaning in VOC sensitive locales, KYZEN's best in class aqueous, solvents and semi-aqueous electronics suite of technologies address a wide diversity of contaminants, while providing the highest levels of compatibility with metals, plastics and elastomers. In addition, we provide advanced packaging cleaning solutions that improve performance at a lower cost, are safe and have less environmental impact. Our award-winning precision cleaning chemistries provide the right solutions for each of your cleaning challenges.





# PROCESS CARE

## MONITOR, MANAGE & ANALYZE



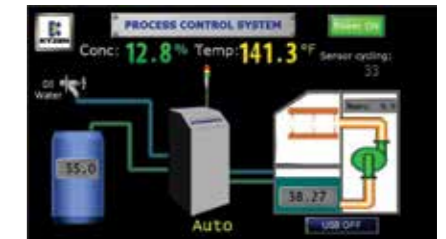
### KYZEN ANALYST™ DATA SERVICES

Access and monitor wash bath concentrations and trend processes from multiple sites and cleaning machines no matter where they, or you, are located in the world.



### 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 PCS

A process control system that monitors and automatically reacts to the dynamic changes in the wash bath. Now enabled with KYZEN ANALYST™ Data Services.

### HE53 MOISTURE ANALYZER

Measure wash bath flux soil load to help determine bath life and schedule preventive maintenance.

### 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.

## YOUR CLEANING PROBLEM IS OUR CLEANING PROBLEM

We don't quit until we've delivered the perfect cleaning solution for your specific needs and situation. For nearly 30 years, our clients have benefited from the care that goes into all our cleaning solutions. When science and care converge, that makes all the difference.

## LAB SERVICES

### WASH BATH ANALYSIS

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

### CLEANLINESS TESTING SERVICES

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

### RISK-FREE TRIALS

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

## ACCESSORIES

Specialized KYZEN Cleaning Accessories enhance the cleaning process. From Wash Baskets to Wash Curtains to Spill Trays and more, we make finding and purchasing effective cleaning accessories easy.





# ELECTRONICS CLEANING PRODUCTS

# ELECTRONICS CLEANING PRODUCTS

## AQUEOUS PCB CLEANING

|                         | SOILS REMOVED      |          |          | PROCESS              |                 |               |
|-------------------------|--------------------|----------|----------|----------------------|-----------------|---------------|
|                         | OA / WATER SOLUBLE | NO CLEAN | RMA / RA | IMMERSION ULTRASONIC | SPRAY (IN-LINE) | SPRAY (BATCH) |
| AQUANOX® A4625 & A4625B | •                  | •        | •        |                      | •               | •             |
| AQUANOX® A4727          | •                  | •        | •        |                      | •               | •             |
| AQUANOX® A4638          | •                  | •        | •        |                      | •               | •             |
| AQUANOX® A4639          | •                  | •        | •        |                      |                 | •             |
| AQUANOX® A4651US        | •                  | •        | •        | •                    |                 |               |

## BENCHTOP AND MAINTENANCE CLEANING

|                            |                  | SOILS REMOVED      |                |                           |                  | PROCESS    |                  |       |        |
|----------------------------|------------------|--------------------|----------------|---------------------------|------------------|------------|------------------|-------|--------|
|                            |                  | OA / WATER SOLUBLE | NO CLEAN / RMA | MISPRINT UNCURED ADHESIVE | RAW SOLDER PASTE | ULTRASONIC | IMMERSION / SOAK | SPRAY | MANUAL |
| PCB Rework                 | CYBERSOLV® 141-R |                    | •              | •                         |                  |            |                  |       | •      |
| Oven                       | CYBERSOLV® C8508 | •                  | •              |                           | •                |            |                  |       | •      |
| Wave Solder Finger Cleaner | CYBERSOLV® C8502 | •                  | •              |                           | •                |            |                  |       | •      |
| Maintenance Pallets        | KYZEN® E5321-LF  | •                  | •              | •                         |                  | •          |                  | •     |        |
| Maintenance Pallets        | KYZEN® E5322     | •                  | •              | •                         |                  | •          |                  |       |        |

## STENCIL CLEANING

|                  | SOILS REMOVED      |                |                           |                           | PROCESS           |                                 |                             |                               |                               |                                 |
|------------------|--------------------|----------------|---------------------------|---------------------------|-------------------|---------------------------------|-----------------------------|-------------------------------|-------------------------------|---------------------------------|
|                  | OA / WATER SOLUBLE | NO CLEAN / RMA | MISPRINT UNCURED ADHESIVE | MISPRINT RAW SOLDER PASTE | UNDERSTENCIL WIPE | HAND-HELD ULTRASONIC TRANSDUCER | ULTRASONIC WASH WATER RINSE | ULTRASONIC WASH CLEANER RINSE | SPRAY-IN-AIR WASH WATER RINSE | SPRAY-IN-AIR WASH CLEANER RINSE |
| AQUANOX® A8820   | •                  | •              | •                         | •                         |                   |                                 |                             |                               | •                             | •                               |
| AQUANOX® A8830   | •                  | •              |                           |                           |                   |                                 | •                           |                               |                               |                                 |
| AQUANOX® A8831   | •                  | •              |                           | •                         |                   |                                 |                             |                               | •                             |                                 |
| CYBERSOLV® C8882 | •                  | •              | •                         | •                         | •                 | •                               |                             |                               |                               |                                 |
| CYBERSOLV® C3400 |                    | •              |                           | •                         | •                 | •                               |                             |                               |                               |                                 |
| CYBERSOLV® C8622 | •                  | •              |                           | •                         | •                 | •                               |                             |                               |                               |                                 |
| KYZEN® E5611     | •                  | •              | •                         | •                         |                   |                                 | •                           | •                             | •                             | •                               |

## BENCHTOP & MAINTENANCE

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

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

### 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. C8502 is also effective on rosin flux used on fabrication of dissimilar metals on industrial components.

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

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

### KYZEN® E5321-LF (Pallet and Maintenance Cleaner)

KYZEN E5321-LF is a room temperature pallet and maintenance cleaning agent. This cost effective chemistry removes all types of solder paste and flux residues, including baked on and hardened lead free high temperature flux residues from wave pallets and filters. Some maintenance applications may require higher concentrations and KYZEN Booster 20 is available for parts with aluminum hardware.

### KYZEN® E5322 (Pallet and Maintenance Cleaner)

KYZEN E5322 is a versatile off-line general maintenance cleaner formulated for wave solder, reflow oven systems, and associated tooling. 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.

## SEMI-AQUEOUS & SOLVENT CLEANING

|                  | SOILS REMOVED      |          |          | PROCESS              |                       |                  |
|------------------|--------------------|----------|----------|----------------------|-----------------------|------------------|
|                  | OA / WATER SOLUBLE | NO CLEAN | RMA / RA | IMMERSION ULTRASONIC | SPRAY UNDER-IMMERSION | VAPOR DEGREASING |
| IONOX® I3302     | •                  | •        | •        | •                    | •                     |                  |
| IONOX® FCR       | •                  | •        | •        | •                    | •                     |                  |
| MICRONOX® MX2501 |                    | •        | •        |                      |                       | •                |



## AQUEOUS SPRAY-IN-AIR

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

AQUANOX A4727 is engineered to be effective, stable and predictable, all day, every day. A4727 is designed for reliable production and assembly operations. 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. This easy to control and cost effective solution is a good choice for both in-line and batch cleaning systems.

### **AQUANOX® A4638** (EAC/Advanced Packaging Cleaning Chemistry)

AQUANOX A4638 is an engineered electronic assembly and advanced packaging cleaning agent designed to remove flux residue from flip chip and low clearance components. AQUANOX A4638 is designed to remove water-soluble polar flux residues and exhibits a low surface tension.

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

AQUANOX A4639 is an engineered aqueous cleaning fluid 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.

## 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.

## VAPOR DEGREASING

### **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. MX2501 has "Zero" ozone-depletion potential and can replace TCE & TCA in many cleaning applications.

## STENCIL CLEANING

### **AQUANOX® A8820** (Advanced Aqueous Stencil Cleaner)

AQUANOX A8820 is an engineered Micro Cell Technology (MCT™) cleaning fluid designed to remove wet solder paste and uncured adhesive from stencils used with the surface mount printing process. A8820 is commonly used to clean the stencil once removed from the stencil printer. **NOTE: Also available in Ready to Use AQUANOX A8820D**

### **AQUANOX® A8830** (Ultra Low VOC Aqueous Stencil Cleaning Agent)

AQUANOX A8830 is a mild formulation that does not damage stencils and is highly effective at removing all types of solder pastes (water soluble, rosin, and no-clean) from fine pitch apertures. A8830 is a low odor cleaner that can be used in open systems. The green environmental properties of AQUANOX A8830 make it an ideal option for areas where air emissions are highly regulated.

### **AQUANOX® A8831** (Aqueous Spray-in-Air Stencil / Maintenance Cleaner)

AQUANOX A8831 is a mild formulation that is compatible with stencils and effectively removes all types of solder pastes (water soluble, rosin, and no-clean) from fine pitch apertures. A8831 is a low odor cleaner than can be used in open systems. The green environmental properties of AQUANOX A8831 make it an ideal option for areas where air emissions are highly regulated.

### **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. E5611 has proven compatible with most standard stencil cleaning equipment.

## UNDER-STENCIL / MANUAL WIPE

### **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.

### **CYBERSOLV® C3400** (Electronics and Stencil Cleaning Solvent)

CYBERSOLV C3400 is a solvent blend designed to remove all raw solder pastes in stencil cleaning applications while remaining compatible with materials commonly used in stencil construction. Easy to use, CYBERSOLV C3400 is used as received and at ambient temperature.

## SPECIAL PURPOSE PRODUCTS

### **KYZEN® Booster 20** (VOC Free Sump Side Aqueous Cleaner Additive)

KYZEN Booster 20 is a cost-effective sump-side additive that enhances performance for those hard to clean applications. Booster 20 utilizes the latest technology available to assist in boosting KYZEN cleaning chemistry without increasing VOC levels.

### **KYZEN® Sonic Boost 22** (Sump-Side Booster for Ultrasonic Cleaning Systems)

KYZEN Sonic Boost 22 is a special blend of surfactants chosen for the enhancement of ultrasonic performance of aqueous cleaners. Sonic Boost 22 reduces the surface tension and promotes wettability of part surfaces in the bath.

### **KYZEN® Defoamer** (Aqueous Based De-foaming Agent for Electronics Assembly Cleaning)

KYZEN Defoamer is an effective de-foaming agent to eliminate foam build-up in aqueous in-line cleaners. KYZEN Defoamer has been found to be especially effective for use in captured wash tanks where water-soluble flux residues cause excessive foaming.





*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.*



**WORLD HEADQUARTERS (USA)**  
615-831-0888

**EUROPE**  
+32 503 95374

**SOUTHEAST ASIA**  
+60 4 630 3000

**CHINA**  
+86 21 5998 7189

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