





**Electro-Wash® High Purity Solvents** are the most effective products made for critical cleaning and degreasing. Each cleaner is engineered for specific applications — from precision cleaning of sensitive equipment to heavy duty degreasing. Electro-Wash® cleaner degreasers clean a wide variety of oil, grease, oxides and handling contamination from equipment and assemblies.



DEL1608B

ES6100

ES6119

## Electro-Wash® QD

Fast drying, nonflammable electronics cleaner degreaser

- Nonflammable, no chlorocarbons
- Excellent material compatibility
- Displaces moisture
- Evaporates fast, minimizes down time
- NSF registered K1 and K2
- All-Way Spray aerosol

**DEL1608B** 12 oz / 340 g BrushClean™ aerosol

## Electro-Wash® VZ

Economical, non-ozone depleting, nonflammable universal cleaner degreaser

- Nonflammable
- One cleaner for all soil types
- Low odor
- Evaporates quickly without leaving residue
- Penetrates to clean hard to reach areas
- All-Way Spray and BrushClean attachment

**ES6100** 12 oz / 340 g aerosol

**ES6119** 19 oz / 538 g aerosol

**ES6101** 1 gal / 3.7 L liquid

## All-Way Spray

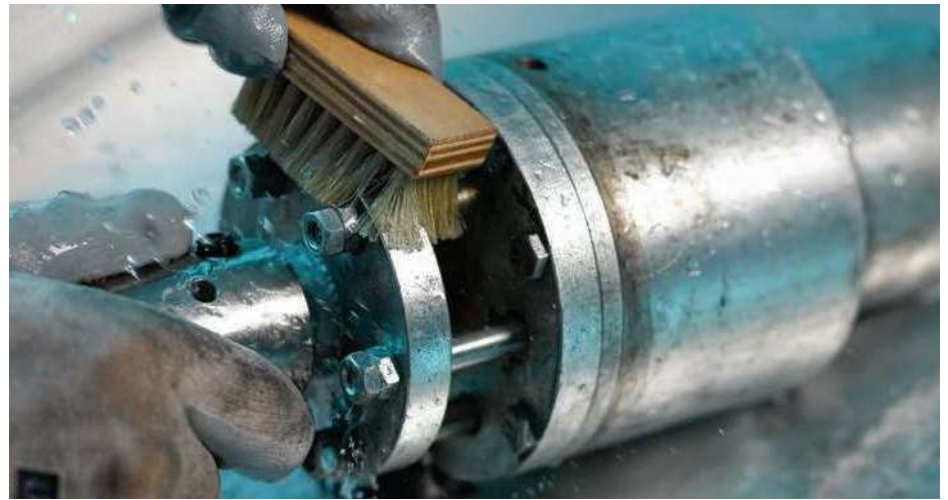
Chemtronics aerosol products (where indicated) can spray even when rotated to clean hard-to-reach places.





WW114

VV514



## Electro-Wash® Tri-V

Extra-strength, nonflammable electronics cleaner degreaser for replacing n-propyl bromide

- Nonflammable
- Can be used on energized equipment
- Fast drying
- Does not contain n-propyl bromide, trichloroethylene, or perchloroethylene
- NSF registered K1 and K2

**VV114** 1 gal / 3.7 L liquid

**VV514** 5 gal / 19 L liquid

**VV5514** 53 gallons / 200 L liquid

## Electro-Wash® Delta

Extra-strength, nonflammable electronics cleaner degreaser

- Nonflammable
- Best AK225 replacement chemistry
- Fast drying
- Contains no ozone depleting compounds, low VOC's
- NSF registered K1 and K2

**DEL101** 1 gal / 3.7 L liquid



DEL101



## Product Selection Guide

Cleaner Degreasers	Features						Cleaning Ability			Cleaning Methods					
	Plastic Safe	Nonflammable	No Ozone Depleting Chemicals	Dries Fast	Dielectric Breakdown (Aerosol)	VOC-EPA (Aerosol / Liquid)	Grease	Oil	Ionic Soils	Aerosol Spray	Vapor Degreasing	Ultrasonics	Hot Immersion		Cold Immersion
Electro-Wash Tri-V	NR	✓	✓	✓	21kV	70% / 95%	1	1	2		✓	✓		✓	Strongest Cleaner
Electro-Wash Delta	2	✓	✓	✓	31kV	63% / 85%	2	1	2			✓		✓	
Electro-Wash NX0	3	✓	✓	✓	15kV	38% / 50%	1	1	2	✓					
Electro-Wash QD	2	✓	✓	✓	11kV	0% / NA	3	1	2	✓					
Electro-Wash VZ	2	✓	✓	✓	17kV	19% / 45%	3	1	2	✓		✓		✓	
Electro-Wash PX	1		✓	✓		75% / 100%	1	1	1	✓				✓	
Electro-Wash MX	1		✓			75% / 100%	1	1	1	✓					
Electro-Wash PR	1		✓	✓		75% / NA	1	1	-	✓					
Electro-Wash CZ	1	✓	✓	✓	17kV	75% / NA	3	2	2	✓					
Electro-Wash Two Step*	NR	✓	✓			NA / 100%	1	1	1			✓	✓	✓	
<b>Industrial Degreasers</b>															
Max-Kleen Tri-V	NR	✓	✓	✓	8kV	70% / 90%	1	1	2	✓	✓	✓		✓	
Max-Kleen Citrus	1	✓	✓		62kV	49% / 49%	2	2	2	✓		✓	✓	✓	
Max-Kleen Citrus HF	1		✓		33kV	50% / 4%	1	1	3	✓					

\* Plastic safety rated at room temperature 1 – Excellent 2 – Good 3 – Fair NR – Not Recommended



## Electro-Wash® MX

Extra-strength, plastic safe universal cleaner with moderate evaporation time

- Safe on plastics
- Flammable
- Extra cleaning strength
- Moderate evaporation rate increases cleaning power
- Leaves no residue
- Removes organic and ionic soils
- All-Way Spray aerosol

**ES1621** 10 oz / 283 g aerosol

**CP421** 25 - 8" x 10" / 20.3 cm x 25.4 cm premoistened wipes (9 ml each)

**FW2150** 9 g / 0.32 oz pen

## Electro-Wash® CZ

Non-ozone depleting, nonflammable cleaner degreaser safe for use on plastics

- Safe on plastics
- Nonflammable
- Dries fast
- Leaves no residue
- All-Way Spray aerosol

**ES7100** 12 oz / 340 g aerosol

## Electro-Wash® NX0

Extra-strength, nonflammable cleaner degreaser

- Nonflammable
- Extra cleaning strength
- Dries fast
- Leaves no residue
- Test on plastics
- All-Way Spray aerosol

**ES1607** 12 oz / 340 g aerosol

## Electro-Wash® PX

Extra-strength universal cleaner and degreaser safe for use on plastics

- Safe on plastics
- Flammable
- Extra cleaning strength
- Dries fast
- Leaves no residue
- Removes organic and ionic soils
- All-Way Spray aerosol

**ES810** 5 oz / 141 g trigger aerosol

**ES1210** 12.5 oz / 354 g aerosol

**ES110** 1 gal / 3.7 L liquid

## Electro-Wash® Two Step

Extra-strength, nonflammable ultrasonic and immersion cleaner

- Nonflammable
- Extra cleaning strength
- Leaves no residue when rinsed with Electro-Wash PX or Electro-Wash CZ
- Increasing temperature increases solvency

**ES125A** 1 gal / 3.7 L liquid

## Electro-Wash® PR

Regular-strength cleaner safe for use on plastics

- Safe on plastics
- Flammable
- Dries fast
- Leaves no residue
- All-Way Spray aerosol

**ES1603** 10 oz / 283 g aerosol



ES1621



ES7100



ES1607



ES810



ES125A



ES1603



VV2279

ES2289

ES2291

Max-Kleen™ Heavy-Duty Degreasers rise to the challenge of your most difficult jobs. These industrial strength cleaners offer fast, easy removal of grease, tar, asphalt, oil and grime. The extra-strength your toughest degreasing jobs require.

## Max-Kleen™ Tri-V™

Extra-strength, nonflammable heavy duty degreaser for replacing n-propyl bromide

- Nonflammable
- Can be used on energized equipment
- Full azeotrope — ideal when reclamation process is required
- Fast drying
- Does not contain n-propyl bromide, trichloroethylene, or perchloroethylene
- NSF registered K1 and K2

**VV2279** 20 oz / 567 g aerosol  
**VV5579** 53 gallons / 200 L liquid



## Max-Kleen™ Citrus

Citrus-based extra-strength degreaser

- Citrus-based formula
- Engineered for fast removal of oxidized grease, sludge, wax, tar and oil
- Dielectric strength of 62 kV
- Does not contain chlorinated solvents
- Safe on most metals and plastics
- Non-corrosive and nonconductive
- NSF Registered — Nonfood Compounds/Code C1
- All-Way Spray aerosol

**ES2289** 15 oz / 425 g aerosol  
**ES189** 1 gal / 3.7 L liquid  
**ES589** 5 gal / 19 L liquid  
**ES5589** 53 gallons / 200 L liquid

## Max-Kleen™ Citrus HF

High flashpoint citrus-based degreaser for heavy greases

- Citrus-based formula with with a high flash point
- Quickly removes all types of tough soils including oxidized oil and grease
- Safe for use on most metals and plastics
- Flashpoint greater than 140° F
- Non-corrosive and nonconductive
- Low Toxicity
- Leaves no residue
- All-Way Spray aerosol

**ES2291** 13.5 oz / 383 g aerosol  
**ES5591** 53 gallons / 200 L liquid

# Contact Cleaners



**Pow-R-Wash™ High Purity Formulations** remove environmental contaminants and protect contacts from corrosion and frictional wear. Contact cleaners restore electrical continuity to all electronic and electrical contacts by penetrating and removing insulating oil and grease, conductive carbon soil, and insulative oxides from contact surfaces. By restoring full circuit continuity, Chemtronics contact cleaners improve the performance of all equipment that rely on electrical contacts.



ES2425

## Pow-R-Wash™ Cable Cleaner

Extra-strength, plastic safe cable and contact cleaner with a moderate evaporation time

- Safe on plastics
- Flammable
- Dielectric breakdown of 63 kV
- Leaves no residue
- All-Way Spray aerosol

**ES2425** 13.5 oz / 385 g aerosol

## Pow-R-Wash™ PR

Regular-strength contact cleaner safe for use on plastics

- Safe on plastics
- Flammable
- Dielectric breakdown of 44 kV
- Dries fast
- Leaves no residue
- All-Way Spray aerosol

**ES1605** 10 oz / 283 g aerosol



ES1605

## Pow-R-Wash™ CZ

Non-ozone depleting, nonflammable contact cleaner safe for use on powered-up contacts and surrounding plastics

- Safe on plastics
- Nonflammable
- Dielectric strength of 31 kV
- Evaporates quickly without leaving residue
- Dries fast
- Leaves no residue
- All-Way Spray aerosol

**ES7300** 12 oz / 340 g aerosol



ES7300

## Tun-O-Wash® Cleaner

Universal fast drying cleaner for electro-mechanical and electronic tuners

- Safe on plastics
- Flammable
- Dries fast
- Leaves no residue
- Cleans hard-to-reach areas
- All-Way Spray aerosol

**ES2400** 12.5 oz / 354 g aerosol

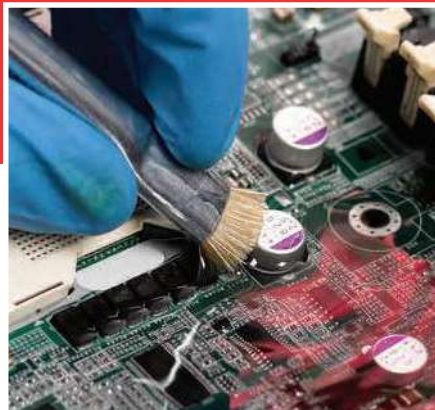


ES2400

## Product Selection Guide

Cleaner Degreasers	Features					Benefits and Applications		
	Plastic Safe	Nonflammable	Cleaning Strength	No Ozone Depleting Chemicals	Dries Fast	VOC-EPA (Aerosol / Liquid)	For Use On Live Circuits	Dielectric Breakdown
Pow-R-Wash Cable Cleaner	1	X	✓		50% / NA		62kV	Strongest Cleaner
Pow-R-Wash PR	1	R	✓	✓	75% / NA		44kV	
Tune-O-Wash	1	R	✓	✓	75% / NA		23kV	
Pow-R-Wash CZ	1	✓	R	✓	7% / NA	✓	31kV	Most Plastic-Safe

1 – Excellent    2 – Good    R – Regular Strength    X – Extra Strength



Flux removal is critical to insure reliable circuitry. Not only unsightly, flux residue can promote short circuits and corrosion, degrading or destroying the printed circuit board.

**Flux-Off® Flux Removers** are specially formulated to remove all types of lead-free, rosin (types R, RA and RMA), no-clean, water soluble and synthetic flux.



## Flux-Off® Delta

Extra strength, nonflammable solvent that removes heavy and encrusted flux deposits

- Nonflammable
- Best AK225 replacement chemistry
- Fast drying
- Contains no ozone depleting compounds, low VOC's
- All-Way Spray aerosol

**DEL1692** 12 oz / 340 g aerosol

**DEL892B** 6 oz / 141 g BrushClean™ System

**DEL192** 1 gal / 3.7 L liquid

**DEL5592** 53 gal / 200 L liquid



DEL892B



VVV595



## Flux-Off® Tri-V™

Extra strength, nonflammable flux remover for replacing n-propyl bromide

- Nonflammable
- Can be used on energized equipment
- Fast drying
- Does not contain n-propyl bromide, trichloroethylene or perchloroethylene

**VVV595** 5 gal / 18.9 L liquid

**VVV5595** 53 gal / 200 L liquid

## Product Selection Guide

	Primary Flux Residue Cleaned								Features				Cleaning Methods			
	Rosin Based*	No-Clean SA-Synthetic	Water Soluble	Removes White Residue	Plastic Safe	Nonflammable	Dries Fast	VOC-EPA (Aerosol / Liquid)	Aerosol Spray	BrushClean™ System	Hand Cleaning	Vapor Degreasing	Ultrasonics	Immersion		
Flux-Off Tri-V	1	1	NR	✓	NR	✓	✓	95% / NA	✓	✓	✓	✓	✓	✓	Strongest Cleaner	
Flux-Off Delta	1	1	NR	✓	2	✓	✓	39% / 52%	✓	✓	✓	✓	✓	✓		
Flux-Off Heavy Duty	1	1	2	✓	3	✓	✓	38% / 50%	✓	✓	✓	✓	✓	✓		
Flux-Off VZ	1	2	NR		2	✓	✓	25% / 75%	✓	✓	✓	✓	✓	✓		
Flux-Off No Clean EXTRA	1	1	2	✓	2		✓	48% / 51%	✓	✓	✓			✓		
Flux-Off Lead-Free	1	2	2		2		✓	48% / 51%	✓	✓	✓			✓		
Flux-Off No Clean Plus	1	1	2	✓	2		✓	48% / 51%	✓	✓	✓			✓		
Flux-Off Rosin	2	1	2		1		✓	46% / NA	✓	✓	✓					
Flux-Off Water Soluble	1	NR	1		1		✓	75% / 75%	✓	✓				✓		
Flux-Off Aqueous	1	2	1	✓	1	✓		NA / 16%				✓	✓			
Flux-Off CZ	1	2	NR		1	✓	✓	22% / NA	✓	✓	✓				Most Plastic-Safe	

1 – Excellent    2 – Good    NR – Not Recommended    \*R, RMA, RA, Rosin-based No-Clean

### Flux-Off® VZ

Economical, non-ozone depleting, nonflammable flux remover

- Nonflammable
- Cleans R, RMA, RA, and no-clean flux
- Low odor
- Dries fast
- Leaves no residue
- All-Way Spray aerosol

**ES6200** 12 oz / 340 g aerosol  
**ES6255** 53 gal / 200 L liquid



### Flux-Off® CZ

Non-ozone depleting, nonflammable flux remover safe for use on plastics

- Safe on plastics
- Nonflammable
- Cleans R, RMA, RA, and no-clean flux
- Dries fast
- Leaves no residue
- All-Way Spray aerosol

**ES7200** 12 oz / 340 g aerosol  
**ES7208B** 5 oz / 141 g BrushClean™ System



### Flux-Off® Rosin

Plastic safe flux remover for cleaning all rosin and rosin-based no-clean flux

- Safe on plastics
- Flammable
- Evaporates quickly
- Leaves no residue
- All-Way Spray aerosol

**ES1035** 10 oz / 283 g aerosol  
**ES1035B** 10 oz / 283 g BrushClean™ System  
**ES835B** 5 oz / 141 g BrushClean™ System  
**ES135** 1 gal / 3.7 L liquid  
**ES535** 5 gal / 18.5 L liquid  
**ES5535** 55 gal / 208 L liquid





**The BrushClean™ System**  
Gentle scrubbing action of a brush combined with high performance flux removers



BrushClean™ System for difficult fluxes



ES897B

ES1697

ES1631

## Flux-Off® Lead-Free

Powerful flux remover for high temperature, lead-free flux removal

- Engineered for removing high temperature, lead-free flux
- Can also be used to remove tin/lead fluxes
- Flammable
- Evaporates quickly without leaving residue
- All-Way Spray aerosol

<b>ES1697</b>	12 oz / 340 g aerosol
<b>ES897B</b>	6 oz / 170 g BrushClean™ System
<b>ES197</b>	1 gal / 3.7 L liquid
<b>ES5597</b>	55 gal / 208 L liquid

## Flux-Off® Heavy-Duty

Heavy-duty flux remover for removing encrusted no-clean and rosin flux

- Nonflammable
- Dries fast
- Leaves no residue
- Test on plastics
- All-Way Spray aerosol

<b>ES1631</b>	12 oz / 340 g aerosol
<b>ES131</b>	1 gal / 3.7 L liquid

## The BrushClean™ System

This system increases cleaning efficiency in two ways – minimizing solvent usage by applying solvent only where you need it, and maximizing cleaning with the addition of mechanical scrubbing action.

- Powerful solvents with scrubbing action of a brush
- Brush precisely applies solvent
- For critical defluxing, use Controlwipe™ (C910) between brush and board to absorb dissolved flux residues
- Solvent flow flushes brush clean
- New brush supplied with every can

**Three powerful tools — one convenient package:**

*Spot clean with the brush*

*Flush under SMD's with the extension tube*

*Clean large areas with the spray nozzle*



# Flux Removers



## Flux-Off® Aqueous

Aqueous flux remover for use in ultrasonics and in-line cleaning systems

- Water-based saponifier for removing all flux types
- Safe on plastics
- Nonflammable
- Concentrated – dilute to adjust cleaning strength
- Requires a water rinse

**ES132** 1 gal / 3.7 L liquid



ES896B

ES1696

## Flux-Off® No Clean Plus

Powerful economical flux remover for cleaning no-clean flux

- Flammable
- Dries fast
- Leaves no residue
- Test on plastics
- All-Way Spray aerosol

**ES1696** 12 oz / 340 g aerosol

**ES896B** 6 oz / 170 g BrushClean™ System

**ES196** 1 gal / 3.7 L liquid

**ES596** 5 gal / 18.5 L liquid

**ES5596** 55 gal / 208 L liquid



ES888B

## Flux-Off® No Clean EXTRA

Low VOC extra-strength solvent blasts away light or heavy encrusted flux deposits, oxide particles, dust, grease and oil

- Low VOC
- Non-corrosive, safe for metals
- Fast evaporation
- All-Way Spray valve — even sprays upside down

**ES888B** 10 oz. / 284 g BrushClean aerosol

## IPA - Isopropyl Alcohol



Conveniently packaged and easy to use 99.8% technical grade isopropyl alcohol

- Safe on plastics
- Flammable
- Dries fast
- Leaves no residue
- Cleans hard-to-reach areas
- Meets Fed Spec TT-1-735A

**ES605L** 16 fl oz / 473 ml liquid

**ES105** 1 gal / 3.7 L liquid

**ES505** 5 gal / 18.9 L liquid

**ES5505** 53 gal / 200 L liquid



ES130

ES1530

## Flux-Off® Water Soluble

Plastic safe flux remover for cleaning water-soluble flux

- Safe on plastics
- Flammable
- Dries fast
- Leaves no residue

**ES1530** 13.5 oz / 383 g aerosol

**ES130** 1 gal / 3.7 L liquid



**Chemtronics® Dusters** are microscopically clean, oil and moisture free sources of "canned air" developed for applications where safe, ultra-pure cleaning is required. Compact and portable, Chemtronics dusters deliver powerful jet action to instantly remove particles from even the most inaccessible areas. Economize solvent usage by removing layers of dry particulate allowing the solvent to work immediately on encrusted soils. Also accelerate surface drying when using slow evaporating cleaners.

## Ultrajet® All-Way

Invertible duster with the **BIGGEST** blast to clean anything fast

All-Way Spray can be sprayed into hard to reach places without the risk of dispensing a liquid spray that can freeze or damage sensitive surfaces.

- Nonflammable
- Highest powered cleaning strength
- Zero VOC
- Filtered to 0.2 microns
- 100% ultra-pure HFC-134a — leaves no residue
- Safe on plastics

**ES1620** 8 oz / 226 g aerosol

## Ultrajet®

Duster with the **BIGGEST** blast to clean anything fast

- Nonflammable
- Highest powered cleaning strength
- Zero VOC
- Filtered to 0.2 microns
- 100% ultra-pure HFC-134a — leaves no residue
- Safe on plastics

**ES1020** 10 oz / 283 g aerosol

## Ultrajet® 70

Powerful, economical duster with a **BIGGER** blast than competitive dusters

- Nonflammable
- High powered cleaning strength
- Bigger Blast than competitive dusters
- Zero VOC
- Filtered to 0.2 microns
- 100% ultra-pure HFC-134a — leaves no residue
- Safe on plastics

**ES1015** 10 oz / 283 g aerosol



ES1620

ES1020

ES1015

## Product Selection Guide

	Blasting Power	Nonflammable	All-Way Spray	Contents	Force Generated*	Internal Pressure	GWP**	Use On Live Circuits
<b>Ultrajet</b>	XX Strength	✓	No	HFC-134a	1.51 N	71 PSIG	1300	Yes
<b>Ultrajet All-Way</b>	XX Strength	✓	Yes	HFC-134a	1.78 N	71 PSIG	1300	Yes
<b>Ultrajet 70</b>	X Strength	✓	No	HFC-134a	1.35 N	71 PSIG	1300	Yes
<b>Duster</b>	Regular Strength	✓	No	HFC-134a	0.94 N	71 PSIG	1300	Yes
<b>152A Blast</b>	X Strength		No	HFC-152a	1.38 N	63 PSIG	140	No
<b>Typhoon Blast 70</b>	X Strength	✓	No	HFO-1234ze	0.93 N	47 PSIG	<1	Yes

\* Force generated measured without extension tubes on Shimpo force gauge.

\*\* Global warming potential (GWP) is calculated based on a 100 year time horizon. Carbon dioxide has a GWP of 1.

### Duster

Economical, regular strength duster

- Nonflammable
- Regular cleaning strength
- Zero VOC
- Filtered to 0.2 microns
- 100% ultra-pure HFC-134a
- Leaves no residue
- Safe on plastics

**ES1017** 10 oz / 283 g aerosol

**ES1617** 12 oz / 340 g aerosol



ES1617

### 152A Blast™

Economical, extra-strength general purpose duster

- Safe on plastics
- High powered cleaning strength
- Flammable
- Zero VOC
- 100% pure HFC-152a
- 1/10th Global Warming Potential of HFC-134a

#### Applications:

- Cleaning dust and particles from de-energized electronics
- Maintenance and repair of de-energized computers, postage meters, and servers

**ES1029** 10 oz / 283 g aerosol



### Typhoon Blast™ 70 Duster

Powerful and economical, ultra-low GWP duster with the BIGGER blast

- Ultra-Low GWP
- High powered cleaning strength
- Nonflammable
- Zero VOC
- Filtered to 0.2 microns
- 100% HFO-1234ze
- Leaves no residue
- Safe on plastics

**ES1025** 10 oz. / 383 g aerosol



### Ultrajet® Duster System

Reusable duster system with a precision surgical-grade chrome trigger valve

- Nonflammable
- Conductive trigger valve prevents static build-up
- Zero VOC
- Filtered to 0.2 microns
- 100% ultra-pure HFC-134a — leaves no residue
- Safe on plastics

#### Applications:

- Ground valve for cleaning sensitive electronics
- Cleaning inside electrical cabinets

**ES1020K** 10 oz / 283 g aerosol kit

Contents: ES1020R and ES710V

**ES1020R** 10 oz / 283 g aerosol refill

**ES710V** Chrome Trigger Valve



ES1020K

Chrome trigger can be grounded for static sensitive applications, and fits refill can (ES1020R).



**Chemtronics® Freeze Sprays** are exceptionally pure, nonflammable and provide instantaneous freezing action while leaving no residue. Conveniently packaged and designed for either pin-point or full board application, these non-reactive circuit refrigerants vaporize instantly while cooling targeted areas.

## Freez-It®

High-performance, pin-point accurate freeze spray for isolating individual components on PC boards

- Pin-point spray isolates individual components without freezing surrounding areas
- Safe on plastics
- Nonflammable
- Filtered to 0.2 microns

**ES1050** 10 oz / 283 g aerosol  
**ES1550** 15 oz / 425 g aerosol

## Freez-It® Antistat

High-performance, pin-point accurate freeze spray that safely cools individual static-sensitive components



- Pin-point spray isolates individual components without freezing surrounding areas
- Ideal for use on static sensitive components
- Non-frosting
- Safe on plastics
- Nonflammable
- Filtered to 0.2 microns

**ES1051** 10 oz / 283 g aerosol  
**ES1551** 15 oz / 425 g aerosol



ES1050 ES1052 ES1055

## Freeze Spray

Economical, general purpose freeze spray with wide spray for cooling entire PC boards

- Wide spray for cooling entire boards
- Safe on plastics
- Nonflammable
- Filtered to 0.2 microns

**ES1052** 10 oz / 283 g aerosol

## Arctic Blast™

Ultra-low GWP freeze spray with pin-point accuracy for isolating individual components

- Ultra-low Global Warming Potential
- Pin-point spray isolates individual components without freezing surrounding areas
- Safe on plastics
- Nonflammable
- Filtered to 0.2 microns



**ES1054** 10 oz / 283 g aerosol

## Arctic Blast™ Antistat

Ultra-low GWP antistatic freeze spray with pin-point accuracy for isolating individual components



- Ultra-low Global Warming Potential
- Pin-point spray isolates individual components without freezing surrounding areas
- Ideal for use on static sensitive components
- Non-frosting
- Safe on plastics
- Nonflammable
- Filtered to 0.2 microns



**ES1055** 10 oz / 283 g aerosol

## Product Selection Guide

Product	Application	Global Warming Potential*	VOC (EPA)	Frost Formation	Cooling Speed	Cooling Temperature
Arctic Blast	Pin-point	<1	0%	Yes	Fast	-49°F/-45°C
Arctic Blast Antistat	Pin-point	<1	<1%	No	Fast	-49°F/-45°C
Freeze-It	Pin-point	1300	0%	Yes	Fast	-60°F/-51°C
Freeze-It Antistat	Pin-point	1300	<1%	No	Fast	-60°F/-51°C
Freeze Spray	Wide Area	1300	0%	Yes	Very Fast	-60°F/-51°C

\* Global warming potential (GWP) is calculated based on a 100 year time horizon. Carbon dioxide has a GWP of 1.



## Static Free™ Hand Guard™

Hand lotion formulated to protect against electrostatic discharge

- Special formulation minimizes potential for static damage
- Penetrates deeply to moisten and refresh dry, chapped or chemically irritated skin
- Nongreasy formula contains Aloe Vera and Vitamin E
- Contains no lanolin, silicone or mineral oil that could inhibit solderability of printed circuits or components

**C805** 8 fl oz / 236 ml liquid



CSP20

Chemtronics Static Free™ products are engineered to protect electronic equipment and work spaces from static buildup while cleaning and reconditioning. These products provide everything required for a comprehensive surface treatment program as recommended by ANSI/ESD S20.20.

## Static Free™ Plast-N-Glas®

Foaming, non-streaking static dissipative cleaner for transparent surfaces

- Controls static, cleans and polishes in one application
- Effectively removes handling oils, finger soils and stains
- Prevents attraction of dust and dirt
- Compatible with plastics, glass and stainless steel
- Foaming spray won't run or drip; ideal for optical surfaces
- Not for use on anti-glare coatings or mesh screens

### Applications:

- Cleaning computer monitors and housings
- Removing handling soils from precision glassware
- Maintaining cleanliness of observation windows on production equipment

**ES1668** 14 oz / 397 g aerosol

## Screen Prep™ Presaturated Wipe

Convenient cleaning and static control for monitors

- Prevents airborne recontamination for up to 7 days
- Safely removes dust, dirt, oil and nicotine
- Controls static-generated contamination
- Wet pad cleans and applies static protection
- Dry wiper polishes screen optically clear

**CSP20** 25 twin packs  
#1 presaturated pad  
#2 polishing wiper

## Static Free™ Mat and Benchtop Reconditioner

Cleans and rejuvenates ESD-safe surfaces

- Cleans and rejuvenates burned or dead spots on ESD mats
- Will not dry mat surfaces with repeated use
- Long-lasting dissipative protection – up to 30 days
- Effective in relative humidity below 15%
- Chloride and amine free formulation
- Noncorrosive
- Meets static decay criteria of MIL-B-891705C

**ES1664T** 16 fl oz / 472 mL Trigger Spray

**SIP125P1664** 125 presaturated wipes in pull-up tub

**NEW!**

**6209HC1664** 150 presaturated cleanroom wipes in ESD pouch

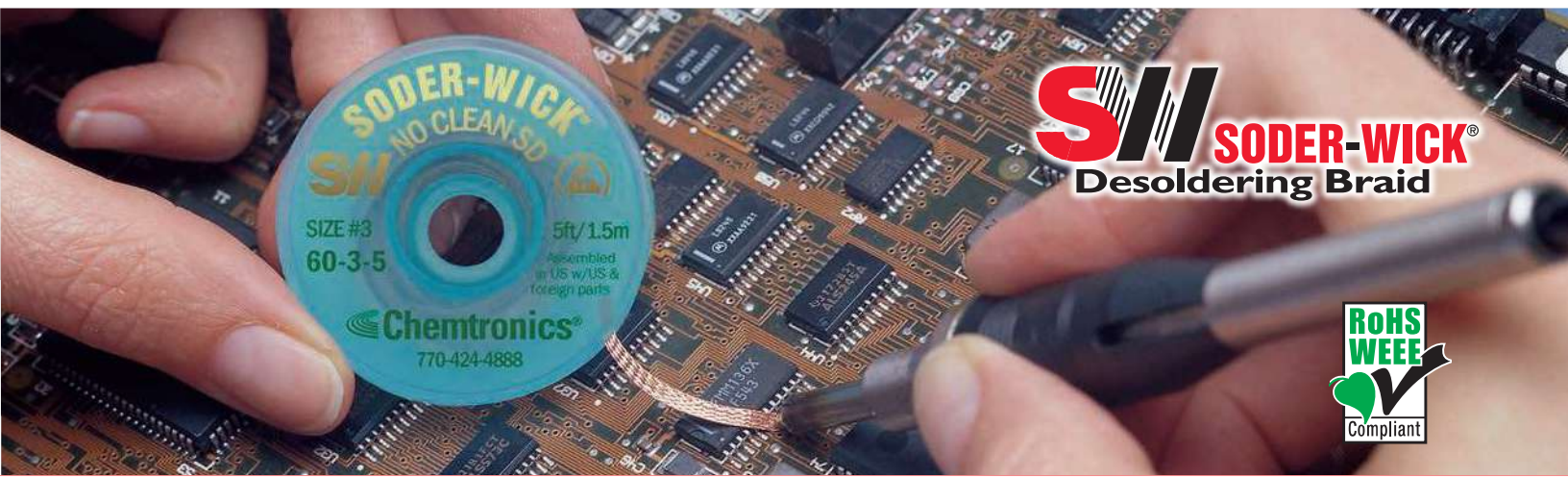
**NEW!**



ES1664T

SIP125P1664

6209HC1664



**All Soder-Wick meet these specs:**

- MIL-F-14256 F type R flux
- NASA-STD-8739.3 Soldered Electrical Connections
- DOD-STD-883E, Method 2022
- ANSI/IPC J STD-004, Type ROL0

**Soder-Wick® Desoldering Braid**, the world's leading brand of desoldering braid, is the fastest, cleanest and safest braid in the industry. It significantly reduces rework/repair time and minimizes the risk of heat damage to the board.

**Solder-Wick No-Clean and Lead Free wick meet these specs:**

- Meets MIL-STD-883B, Bellcore TR-NWT-000078, ANSI/IPC J SF-818
- Meets parameters tested by the Singapore Institute of Standards and Industrial Research (SISIR) for Solderability
- ANSI/IPC J STD-004, Type ROL0

## Product Selection Guide

Product	Size	Color	ESD-Safe*		25' 7.5m	100' 30.5m	500' 152.5m
			5' 1.5m	10' 3.0m			
<b>Soder-Wick® Rosin</b> Fastest wicking action with rosin flux coated desoldering braid	1	.030"/0.8mm	White	80-1-5	80-1-10	50-1-25	
	2	.060"/1.5mm	Yellow	80-2-5	80-2-10	50-2-25	50-2-100
	3	.080"/2.0mm	Green	80-3-5	80-3-10	50-3-25	50-3-100
	4	.110"/2.8mm	Blue	80-4-5	80-4-10	50-4-25	50-4-100
	5	.145"/3.7mm	Brown	80-5-5	80-5-10	50-5-25	
	6	.210"/5.3mm	Red	80-6-5		50-6-25	
<b>Soder-Wick® No Clean</b> Cleanest, leaving behind no ionic residue, with no clean flux coated desoldering braid	1	.030"/0.8mm	White	60-1-5	60-1-10		
	2	.060"/1.5mm	Yellow	60-2-5	60-2-10		
	3	.080"/2.0mm	Green	60-3-5	60-3-10		
	4	.110"/2.8mm	Blue	60-4-5	60-4-10		
	5	.145"/3.7mm	Brown	60-5-5	60-5-10		
	6	.210"/5.3mm	Red	60-6-5			
<b>Soder-Wick® Lead-Free</b> Safest on thermally sensitive components, with this specially engineered no clean flux coated desoldering braid	1	.030"/0.8mm	White	40-1-5			
	2	.060"/1.5mm	Yellow	40-2-5	40-2-10		
	3	.080"/2.0mm	Green	40-3-5	40-3-10		
	4	.110"/2.8mm	Blue	40-4-5	40-4-10		


**\*Offered in static dissipative (ESD-safe) bobbins:**

- DOD Standard 1686C and MIL-HDBK-263B
- Mil-Std-2000A
- Mil-B-81705C Static Decay Rate Provision
- 5' and 10' packaged 25 bobbins per sleeve





## Product Selection Guide

Product	Size	Color	 *	
			10' 3.0m	25' 7.5m
<b>Soder-Wick® Unfluxed</b> Unfluxed desoldering braid which can be coated with any flux type	2 .060"/1.5mm	Yellow	75-2-10	70-2-25
	3 .080"/2.0mm	Green	75-3-10	70-3-25
	4 .110"/2.8mm	Blue	75-4-10	

## Desoldering Braid Product Application Guide

<b>#1 White/Gray</b>  .030" (0.8mm)	<b>#2 Yellow</b>  .060" (1.5mm)	<b>#3 Green</b>  .080" (2.0mm)
<b>#4 Blue</b>  .110" (2.8mm)	<b>#5 Brown</b>  .145" (3.7mm)	<b>#6 Red</b>  .210" (5.3mm)

*Wick shown actual size*

Size	Color	Application
1 .030"/0.8mm	White / Gray	SMD, Micro-Circuits
2 .060"/1.5mm	Yellow	Small Pads, SMDs
3 .080"/2.0mm	Green	Medium Pads
4 .110"/2.8mm	Blue	Large Pads
5 .145"/3.7mm	Brown	Terminals
6 .210"/5.3mm	Red	Large Lugs

## Chem-Wik® Desoldering Braid


**Chem-Wik® Desoldering Braid** ensures fast and safe desoldering with ultra-pure, oxygen free copper braid that quickly and completely removes solder from circuit boards and components. Its fast wicking action protects components from harmful heat damage.

Chem-Wik® Desoldering Braid meets or exceeds industry performance standards:

- MIL-F-14256F Type R
- NASA STD-8739.3 Soldered Electrical Connections
- ANSI/IPC J STD-004, Type ROLO
- DOD-STD-883E, Method 2022



## Product Selection Guide

Product	Size	Color	 *				
			5' 1.5m	25' 7.5m	50' 15.0m	100' 30.5m	500' 152.5m
<b>Chem-Wik® Rosin</b> Fast wicking action with rosin flux coated desoldering braid	1 .030"/0.8mm	Gray	2-5L	2-25L	2-50L	2-100L	
	2 .050"/1.3mm	Yellow	5-5L	5-25L	5-50L	5-100L	5-500L
	3 .075"/1.9mm	Green	7-5L	7-25L	7-50L	7-100L	7-500L
	4 .100"/2.5mm	Blue	10-5L	10-25L	10-50L	10-100L	10-500L

**\*Offered in static dissipative (ESD-safe) bobbins:**

- Reduces the risk of damage associated with static electricity
- DOD Standard 1686C and MIL-HDBK-263B
- Mil-Std-2000A
- Mil-B-81705C Static Decay Rate Provision
- 5' and 10' packaged 25 bobbins per sleeve







CircuitWorks® comprehensive line of conveniently packaged and precision dispensing rework and repair products makes circuit board repair and prototyping faster, easier and more accurate. Advanced-formula materials packaged in unique delivery systems ensure superior performance and pinpoint accuracy. The full range of products meets all of the technicians needs for electronics rework and prototyping — repairing, cleaning, protecting, bonding, and restoring electrical conductivity to circuit boards and components. All CircuitWorks® products are compliant with IPC-7711 Rework of Electronic Assemblies, and ANSI/J-STD-001.

## Thermal Compounds

*For fast, efficient heat transfer between circuit components and heat sinks.*

### CircuitWorks® Boron Nitride Heat Sink Grease

Ultra-high efficiency, thermally conductive grease

- Provides maximum thermal conductivity with superior dielectric properties
- Silicone free compound will not harden or dry out
- Electrically insulative; noncorrosive and nonflammable
- Thermal conductivity 1.85 W/m<sup>2</sup>K
- Thermally stable from -99.4°F/-73°C to 392°F/200°C
- Exceeds MIL-C-47113 for Thermal Conductivity

**CW7250** 3.4 g / 0.12 oz



CW7250

### CircuitWorks® Silicone Free Heat Sink Grease

Non-contaminating silicone free heat-sink grease

- Silicone free compound will not harden or dry out
- Excellent thermal conductivity and dielectric properties
- Non-corrosive
- Thermal conductivity 0.71 W/m<sup>2</sup>K
- Thermally stable from -99°F/-73°C to 603°F/317°C
- Exceeds MIL-C-47113 for thermal conductivity

**CW7270** 8 g / 0.28 oz



CW7270

### CircuitWorks® Heat Sink Grease

Silicone compound for heat transfer away from electronics and electrical components

- Excellent thermal and dielectric properties
- Will not dry out, harden, or melt
- Noncorrosive and nonflammable
- Thermal conductivity 0.63 W/m<sup>2</sup>K
- Thermally stable from -40°F(-40°C) to 392°F (200°C)

**CT40-5** 142 g / 5 oz



CT40-5

## Conductive Ink

### Conductive Ink Applications:

- Repairs traces
- Links components
- Makes smooth jumpers
- Shields electronics



### CircuitWorks® Conductive Paint

Paint kit for fine conductive traces or painting over large areas

- Quickly creates highly conductive silver traces
- Superior electrical conductivity
- Dries in minutes at room temperature
- Includes 1 pick, 2 lint-free swabs and 2 brushes



**CW2205** 5 g / 0.18 oz

### CircuitWorks® Rubber Keypad Repair Kit

Conveniently-sized kit for permanent repair of rubber keypads

- Restores electrical conductivity to worn carbon contacts
- Forms a tough, flexible, wear-resistant surface
- Repairs over 50 rubber button contacts

#### Applications:

- Restores rubber and telephone keypads
- Restores flexible carbon contacts

**CW2605** Adhesive 3 g / 0.1 oz  
Curing Agent 0.3 g / 0.01 oz



### CircuitWorks® Conductive Pen

Pen dispenser for drawing highly conductive silver traces, jumpers and shielding with precision and control

- Quickly creates highly conductive silver traces
- Valved pen tip for easy applications
- Solderable at low temperatures
- Dries in minutes at room temperature
- Choice of Micro Tip for fine lines or Standard Tip for wider lines

**CW2200STP** Standard Tip 8.5 g / 0.3 oz  
**CW2200MTP** Micro Tip 8.5 g / 0.3 oz



Standard Tip



Micro Tip



CW2200MYP

### CircuitWorks® Nickel Conductive Pen

Pen dispenser for economically drawing conductive traces, jumpers and shielding

- Quickly creates conductive nickel traces on most surfaces
- Easy and economical to use
- Valved pen tip for easy applications
- Dries in minutes at room temperature

**CW2000** Standard Tip 8.5 g / 0.3 oz



### CircuitWorks® Flex Conductive Pen

Micro-tip pen for drawing conductive traces on flexible and ITO surfaces

- Quickly creates flexible conductive silver traces on flex circuitry
- Micro tip for precise applications
- Dries in minutes at room temperature
- Highly adherent silver-based polymer system

**CW2900** Micro Tip 8.5 g / 0.3 oz



## Conductive Grease



### CircuitWorks® Silver Conductive Grease

Grease for superior electrical and thermal conductivity, lubrication and protection

- Fills connector gaps to maximize electrical and thermal conductivity
- Protects against moisture and corrosion
- Thermally stable from -70°F/-57°C to 485°F/252°C
- Conductive lubricant containing pure silver
- Controls static discharge
- Grounds circuits

**CW7100** 6.5 g / 0.23 oz



## Protective Overcoats



CW3300G

### CircuitWorks® Overcoat Pen

Pen dispenser for precise application of a tough protective acrylic conformal coating

- Simple to use, single component system
- Hard, durable coating
- High dielectric strength helps prevent electrical discharge
- Dries quickly at room temperature
- Protects against moisture and abrasion damage
- Meets MIL-I-46058C and IPC-CC-830A

#### Applications:

- Insulates and protects conductive pen traces
- Repairs permanent solder mask
- Prevents shorting and arcing

<b>CW3300C</b>	Clear	4.9 g / 0.17 oz
<b>CW3300G</b>	Green	4.9 g / 0.17 oz
<b>CW3300B</b>	Blue	4.9 g / 0.17 oz
<b>CW3300BLACK</b>	Black	4.9 g / 0.17 oz
<b>CW3300WHITE</b>	White	4.9 g / 0.17 oz



## Conductive Epoxies

### Conductive Epoxy Applications:

- Repair traces and temperature sensitive circuits
- Make high-strength solderless conductive connections
- Die attachment
- Thermal dissipation
- Static discharge and grounding



CW2460



### CircuitWorks® Conductive Epoxy

Epoxy for precision repairs and high-strength conductive bonding

- Conductive silver epoxy provides excellent electrical conductivity
- High strength conductive bond with a five minute work time
- Repairs defective traces and creates jumpers on boards
- Quick solderless electronic connections

**CW2400** Adhesive 7 g / 0.25 oz  
Hardener 7 g / 0.25 oz

### CircuitWorks® 60 Minute Conductive Epoxy

Epoxy system with extended pot life for high strength conductive bonds

- Conductive silver epoxy provides excellent electrical conductivity
- Sixty minute work time provides a high strength conductive bond
- Extended pot life provides increased work time
- Repairs defective traces and creates jumpers on boards
- Quick solderless electronic connections

**CW2460** Adhesive 10 g / 0.35 oz  
Hardener 10 g / 0.35 oz in jars

### CircuitWorks® Epoxy Overcoat

Tough, thermally stable, epoxy protective conformal coating

- Provides a hard, durable, protective green coating
- Excellent dielectric properties; help prevent electrical discharge
- Protects against moisture and abrasion
- Ideal for pre-reflow solder resist repair
- Service temperature from -55°F/-48°C to 600°F/315°C
- Meets the requirements of IPC-7721, 2.4.1

#### Applications:

- Ideal for repairing permanent solder mask before reflow applications
- Protects circuits and prevents shorting and arcing

**CW2500** Adhesive Syringe 4 g / 0.14 oz  
Hardener Syringe 3.4 g / 0.12 oz

## Flux / Solder

### CircuitWorks® Flux Dispensing Pens

Pen for applying flux with precision and control

- Chisel tip marker provides exact delivery of flux to surface
- Easily removed with appropriate CircuitWorks® Flux Remover Pen

#### No Clean Flux Dispensing Pen

- Applies a patented noncorrosive, halide free, no clean flux
- Flux meets Bellcore TR-N-NWT-000078 and IPC SF-818 for Surface Insulation Resistance
- Flux meets ANSI/IPC J-STD-004, Type ROLO

**CW8100** 9 g / 0.32 oz

**CW8100BLK50** Box of 50 pens, 9 g each

#### Lead-Free Flux Dispensing Pen

- Applies a noncorrosive, halide free, no clean flux for high temperature, lead-free application
- Can also be used for tin/lead solders
- Flux meets Bellcore TR-N-NWT-000078 and IPC SF-818 for Surface Insulation Resistance
- Flux meets ANSI / IPC J-STD-004, Type ROLO
- Easily removed with Lead-Free Flux Remover Pen, or Flux-Off® Lead-Free Flux Remover

**CW8400** 9 g / 0.32 oz

**CW8400BLK50** Box of 50 pens, 9 g each

#### Rosin Flux Dispensing Pen

- Applies a noncorrosive, nonconductive Type R flux
- Flux meets MIL-F-14256 F Type R and ANSI/IPC J-STD-004, Type ROLO

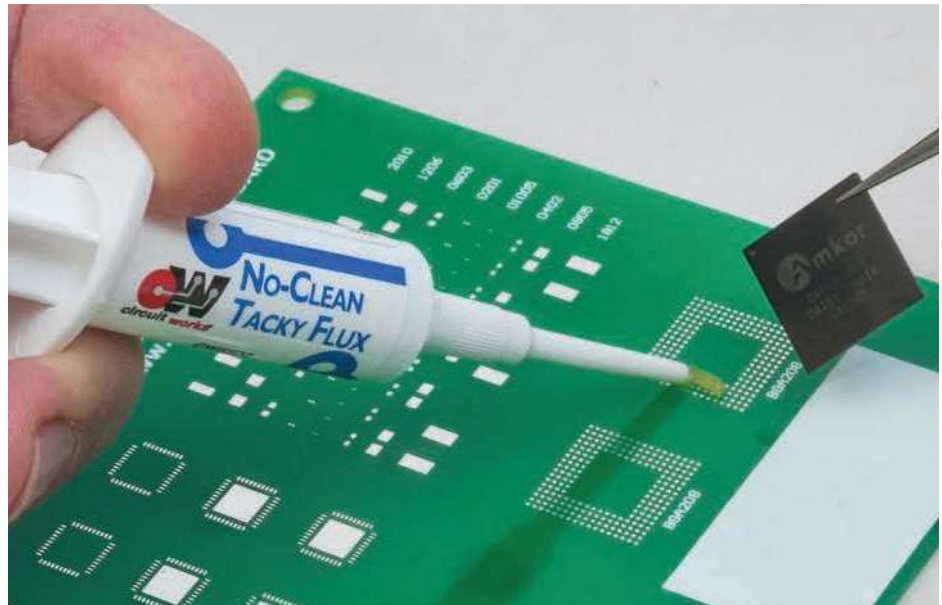
**CW8200** 9 g / 0.32 oz

**CW8200BLK** Box of 50 pens, 9 g each

#### Water Soluble Flux Dispensing Pen

- Applies a neutral pH organic water soluble flux for rapid soldering
- Flux meets ANSI/IPC J-STD-004, ORH1 Classification
- Easily removed with water or Flux-Off® Water Soluble (pg. 13)

**CW8300** 9 g / 0.32 oz



### CircuitWorks® Tacky Flux

Conveniently packaged flux gel formulated for easy SMT rework

- Formulated for No-Clean applications
- Syringe applicator provides exact delivery of flux
- Long tack time, extended shelf life
- No refrigeration required
- Noncorrosive, halide and halogen free
- Meets IPC requirements for ROLO, No Clean
- Conforms to ISO 9454
- Meets Bellcore TR-NWT-000078 requirements
- Meets DIN EN 29454-1 1.1.3.C classification



CW8700



CW8500

#### Lead-Free

**CW8700** 3.5 g / 0.12 oz

#### No-Clean

**CW8500** 3.5 g / 0.12 oz

### CircuitWorks® Lead-Free Pocket Solder

Lead free, high purity pocket sized solder dispenser for convenient rework and repair

- SAC 305 for soldering lead-free applications
- 96.5% Tin (Sn), 3.0% Silver (Ag), 0.5% Copper (Cu)
- Type ROLO flux per IPC J-STD-004
- Ensures even, reliable solder connections
- Cleans and wets heavily tarnished copper surfaces

**S200** 1.0 mm / 0.04" Diameter,  
3.18 m / 125" Length



## Cleaning and Lubricating Pens



### CircuitWorks® Conformal Coating Remover Pen

Pen for precise removal of silicone, acrylic and urethane coatings from PCBs

- Spot cleans tight tolerance areas on circuit boards
- Marker dispenser provides controlled and exact application
- Evaporates quickly
- Provides low surface tension for superior wetting
- Low VOC content

**CW3500** 9 g / 0.32 oz

### CircuitWorks® Gold Guard™ Pen

Pen for cleaning and lubricating gold and other noble metal contacts and connectors

- Cleans and leaves protective polyphenyl ether lubricant in one step
- Extends life of noble metal contacts
- Chisel tip marker for exact delivery to the contact
- Safe on plastics

**CW7400** 8.5 g / 0.3 oz



### CircuitWorks® Flux Remover Pen

Pen for precise removal of flux from printed circuit boards

- Completely removes flux in seconds
- Spot cleans tight tolerance areas on circuit boards
- Marker dispenser provides controlled spot cleaning
- Dries fast



#### No Clean Flux Remover Pen

**CW9100** 9 g / 0.32 oz



#### Rosin Flux Remover Pen

**CW9200** 8 g / 0.28 oz



#### Lead-Free Flux Remover Pen

**CW9400** 9 g / 0.32 oz

### CircuitWorks® The Mighty Pen®

Powerful universal cleaning pen

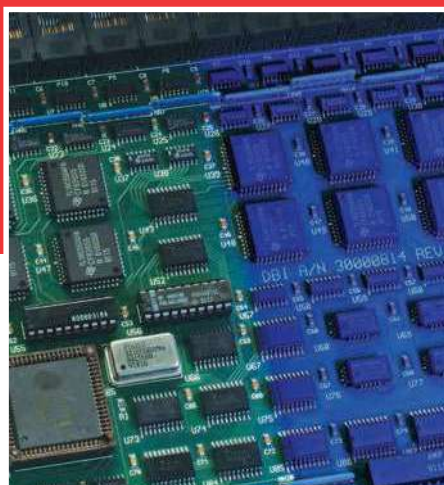
- Outstanding cleaning ability
- Marker dispenser provides controlled and exact application
- Mild citrus aroma
- U.S. Patent 6,677,291 and 6,677,292, and foreign patents

#### Applications:

- General purpose cleaning and refurbishing of equipment
- Removes ink stains, label adhesives, and difficult to remove soils

**CW3700** 11 g / 0.39 oz





All Konform® coatings contain a UV indicator for improved quality assurance.

**Konform® Conformal Coatings** are used to protect printed circuit boards, components and flex circuitry. These coatings provide excellent electrical insulation and withstand hot and cold operating environments, as well as heat generated by electronic circuitry. Formulated to protect components and circuits in the most demanding of environments, all Konform® conformal coatings contain a UV indicator for easy quality assurance. These tough, transparent coatings will not chip or crack, thereby providing excellent protection. All are convenient and ready to use.

## Konform® AR

Acrylic coating for effective insulation against high voltage arcing and shorts

- Acrylic coating working temperature from -75°F/-59°C to 270°F/132°C
- High dielectric breakdown of 8300 volts/mil
- Compliant to IPC-CC-830A
- Designed to provide effective insulation against electrical shorts and harsh environments
- Provides excellent acid resistance
- Easily repairable
- Contains UV Tracer for easy quality control
- UL recognized
- Coverage (@1 mil dry):  
Aerosol (1 can) 20 ft<sup>2</sup> / 1.9 m<sup>2</sup>  
Liquid (1 gal.) 254 ft<sup>2</sup> / 23.6 m<sup>2</sup>



**CTAR-12** 11.5 oz / 326 g aerosol

**CTAR-1** 1 gal / 3.7 L liquid

## Product Selection Guide

	Resistance					Underwriters Laboratories			Coating Characteristics					Cure Profile			
	Temperature Resistance	Abrasion Resistance	Acid Resistance	Solvent Resistance	Humidity Resistance	Water Submersible Per UL	UL Recognized	UV Traceable	System	Viscosity (Liquid)	Flexibility	Solderability	Reparability	Dielectric Breakdown	Working Temperature	Tack Free Time	Full Cure Time
Konform SR	1	4	2	2	1	✓	✓	✓	Solvent	40 cps	1	4	3	1100	-85F to 390° (-65°C to 200°)	15 min.	24 hrs. @RT
Konform SR Med. Viscosity	1	4	2	2	1	✓		✓	Solvent	60 cps	1	4	3	1100	-85F to 390° (-65°C to 200°)	15 min.	24 hrs. @R
Konform SR High Viscosity	1	4	2	2	1	✓		✓	Solvent	120 cps	1	4	3	1100	-85F to 390° (-65°C to 200°)	15 min.	24 hrs. @RT
Konform AR	2	1	1	3	1		✓	✓	Solvent	70 cps	4	3	4	8300	-75F to 270° (-59°C to 132°)	30 min.	24 hrs. @RT
Konform SR-X	1	4	2	2	1			✓	Solvent	950 cps	1	4	3	720	-76F to 392° (-60°C to 200°)	30 min.	24 hrs. @RT

1 – Outstanding    2 – Excellent    3 – Good    4 – Fair    NA – Not Available

### Konform® SR

Silicone coating for maximum flexibility and protection from extreme temperatures and vibration damage

- Silicone coating working temperature from -85°F/-64°C to 390°F/200°C
- High dielectric breakdown of 1100 volts/mil
- Easily removed with Electro-Wash® Two Step, Electro-Wash® NXO, or CircuitWorks® Conformal Coating Remover Pen
- Compliant to IPC-CC-830A
- Engineered for applications where flexibility and high temperature resistance are required
- Contains UV Tracer for easy quality control
- UL recognized (standard viscosity only)
- Coverage (@1mil dry):  
Aerosol (1 can) 21 ft² / 2 m²  
Liquid (1 gal.) 251 ft² / 23.3 m²

**CTSR-12** 10 oz / 283 g aerosol  
**CTSR-P** 16 fl oz / 473 ml liquid  
**CTSR-1** 1 gal / 3.7 L liquid  
**CTSR-5** 5 gal / 19 L liquid



#### Medium Viscosity

- Coverage (@1mil dry): 479 ft² / 44.5 m²

**CTSR-MV5** 5 gal / 19 L liquid

#### High Viscosity

- Coverage (@2mil dry): 719 ft²

**CTSR-HV1** 1 gal / 3.7 L liquid

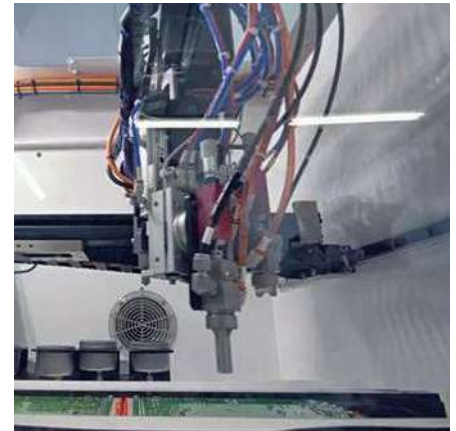
### Konform® SR-X Silicone Conformal Coating

One-part, clear conformal coating with moisture, corrosion and abrasion resistance

- Ideal replacement for 1-2577
- Engineered for applications where flexibility and high temperature resistance are required
- Exceptional dirt, dust, and soil repellency
- Superior transparency
- Corrosion resistance
- Low VOC
- Low toxicity – HAPs free
- Stable from -76°F/-60°C to 392°F/200°C
- High dielectric strength of 720 volts/mil

#### Konform SRX950 – High Viscosity

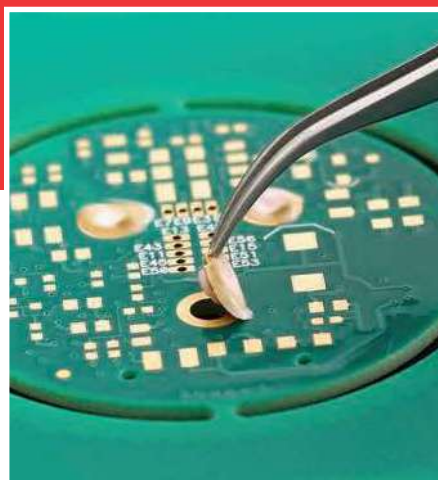
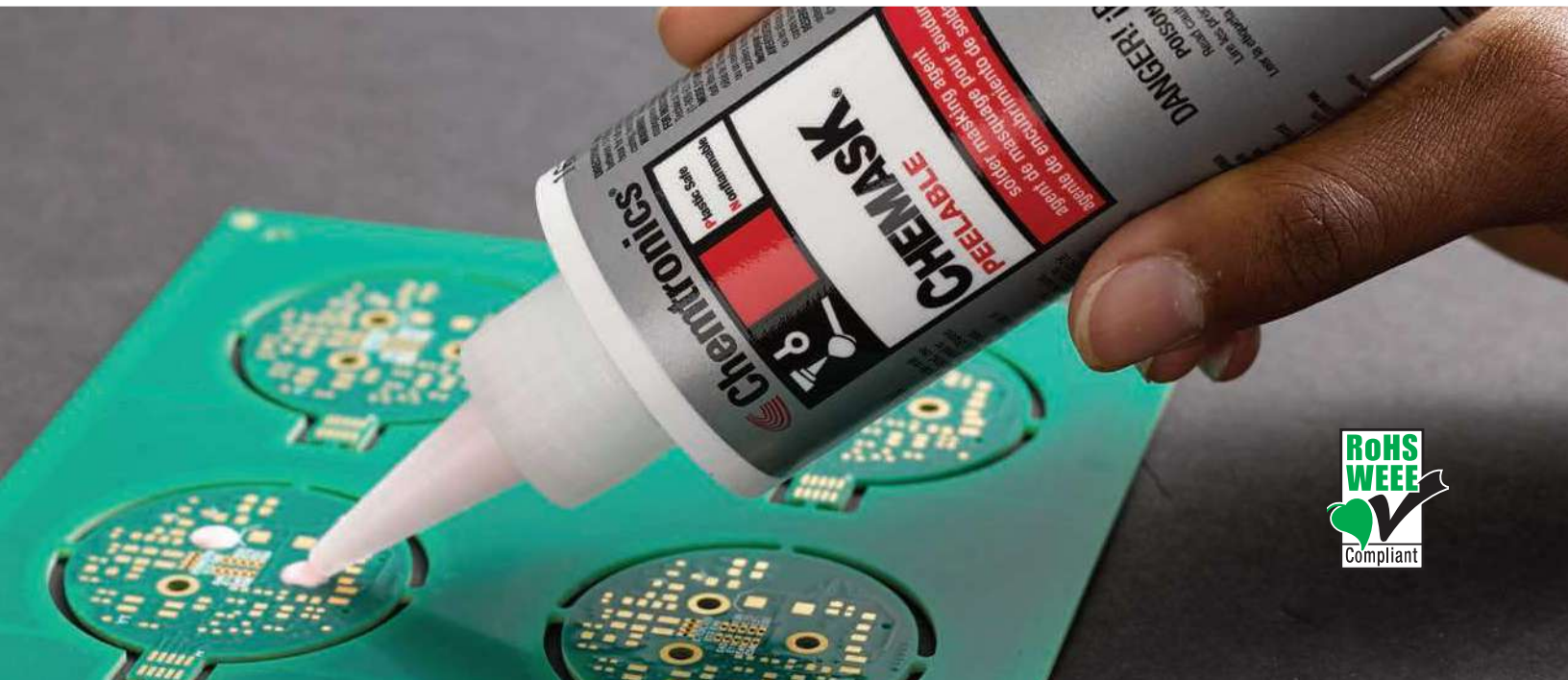
**CTSRX950-1** 1 gallon / 3.8L liquid  
**CTSRX950-5** 5 gallon / 18.9L liquid  
**CTSRX950-55** 54 gallon / 204L liquid



Konform SR-X can be thinned with heptane, a low cost and low toxicity solvent, for, hand sprayer, selective spray and dip applications.



# Temporary Solder Mask



## Chemmask® — Peelable

Fast curing, peelable temporary solder masking agent

- Dries tack-free in 15 minutes
- Easy to use — just peel off dried Chemmask® masking agent
- Latex material is compatible with all flux systems and stable with cleaning solvents

**CM8** 8 fl oz / 236 ml liquid squeeze bottle

**CM1** 1 gal / 3.7 L liquid

**Chemmask® Temporary Solder Masks** protect PC boards, plated thru-holes, contacts, pins, posts, terminals and gold fingers during reflow and wave soldering. They provide short-term high-temperature protection from molten solder to a minimum of 515°F/268°C. All products are nonflammable, non-contaminating and will not leave ionic or corrosive residue. Use as a protective mask during conformal coating process.

## Chemmask® NA — Non-Ammoniated

High temperature, peelable, temporary mask safe for use on sensitive metals

- Will not affect gold, copper, nickel, silver and OSP finishes
- For lead-free or tin/lead processes
- Stable to 550°F / 288°C
- Phthalate-free, low toxicity and environmentally safe
- Compatible with rosin, no-clean and water soluble flux types
- Dries tack free in 15 minutes
- Can be placed directly into pre-heat oven without waiting
- Removes easily and leaves no residue
- Non-contaminating, non-staining and noncorrosive

**CNA8** 8 fl oz / 236 ml liquid squeeze bottle

## Chemmask® LF — Lead-Free

High temperature, peelable temporary mask ideal for lead-free applications

- Formulated for use with lead-free applications
- Can also be used with tin/lead solders
- Usable within five minutes of application with preheat cycles
- Provides short-term high temperature protection up to 550°F / 288°C

**CLF8** 8 fl oz / 236 ml liquid squeeze bottle



CM1

CM8

CNA8

CLF8



## Product Selection Guide

	Product Characteristics				Flux Resistance	Solvent Resistance	Application Methods				Removal Methods
	Safe for Sensitive Metal Surfaces	Tack Free Time @ Room Temperature	Full Cure Time @ Room Temperature	Preheat Activated			Automated Dispenser	Stencils	Screens	Peelable	
<b>Chemask Peelable</b>	NR	15 min.	30 min.	NA	All types	All types	Yes	No	No	Yes	No
<b>Chemask NA Non-Ammoniated</b>	Yes	15 min.	30 min.	Yes; can be placed directly into preheat	All types	All types	Yes	Yes	Yes	Yes	No
<b>Chemask LF Lead-Free</b>	NR	15 min.	30 min.	Yes; 4 min. full cure	All types	All types	No	No	No	Yes	No
<b>Chemask HV High Viscosity</b>	Yes	15 min.	30 min.	Yes; 4 min. full cure	All types	All types	No	No	No	Yes	No
<b>Chemask WF Water Filterable</b>	No	30 min.	60 min.	NA	Not compatible with water-based flux	Remove with water and water-based cleaners	Yes	Yes	Yes	No	Yes

NA – Not Available    NR – Not Recommended

### Chemask® WF — Water Filterable

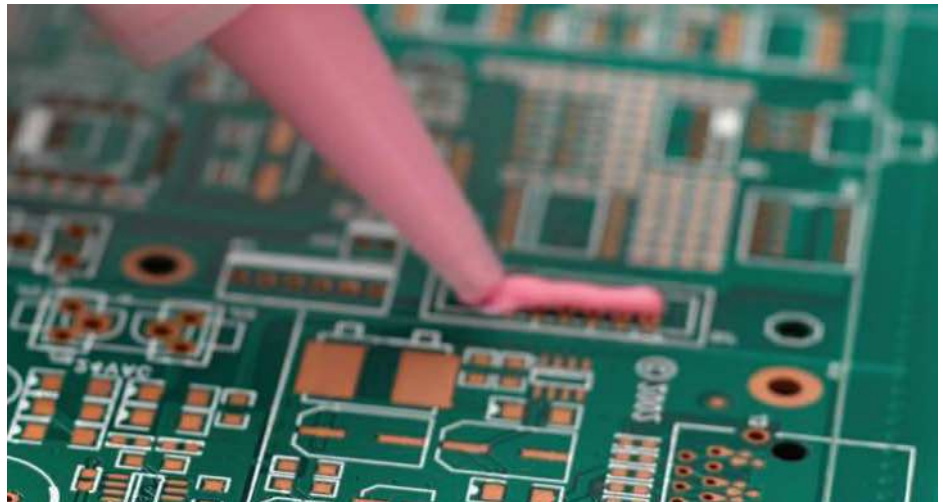
Low-foaming, water filterable temporary solder masking agent

- Easily removed in water cleaning cycles
- Does not coat filtration equipment
- Noncorrosive; safe for sensitive contacts
- Removed with inexpensive filters, increasing the life span of activated carbon/resin beds
- US Patent Number 6,207,265

#### Applications:

- Ideal for use with closed loop cleaning systems
- Increases productivity by reducing cleaning system maintenance
- Short-term high-temperature protection from molten solder to 515°F / 268°C

**CWF8** 8 fl oz / 236 ml liquid squeeze bottle



### Chemask® HV — High Viscosity

High viscosity, peelable temporary solder masking agent

- Usable within five minutes of application with preheat cycle
- More controlled application
- Thicker coating does not seep through thru-holes
- Latex material is compatible with all flux systems and stable with cleaning solvents

**CHV8** 8 fl oz / 236 ml liquid squeeze bottle



CWF8

CHV8

# Presaturated Wipes and Swabs



## IPA Presaturated Wipes

General purpose presaturated wipe in a convenient dispenser

- Ultra pure mixture of IPA and deionized water
- Nonwoven, spunlaced polyester material
- Non-scratching and strong — will not tear or lint
- Ideal for cleaning of semi-automatic printer stencils and touch-up cleaning of automatic printer stencils
- IPA100B wipes are lint free and pre-cut — excellent for cleaning fine pitch stencils

<b>SIP100P</b>	100 presaturated wipes in pull-up tub 70% IPA and 30% deionized water
<b>SIP100R</b>	100 ct refill roll
<b>SIP125P</b>	125 presaturated wipes in pull-up tub 70% IPA and 30% deionized water
<b>SIP125R</b>	125 ct refill roll
<b>SIP91P</b>	100 presaturated wipes in pull-up tub 91% IPA and 9% deionized water
<b>IPA100B</b>	100 c-fold presaturated wipes 70% IPA and 30% deionized water

## Screen Prep™ Presaturated Wipe

Convenient cleaning and static control for monitors



- Cleans and provides a static dissipative treatment
- Prevents airborne recontamination for up to seven days
- Safely removes dust, dirt, oil and nicotine
- Controls static-generated contamination
- Wet pad cleans and applies static protection
- Dry wiper polishes screen optically clear

<b>CSP20</b>	25 twin packs
	#1 presaturated pad
	#2 polishing wiper

## Electro-Wash® MX Presaturated Wipe

Extra-strength plastic safe universal cleaner with moderate evaporation time

- Cleans all soil types — organic and ionic
- Moderate evaporation rate increases cleaning power
- Leaves no residue
- Presaturated wipe great for toolbox or travel

### Applications:

- Ideal for cleaning fiber optics and fiber optic connectors, cables, hard-line coax cable, cable splices, PC boards, motors, tools and transformers, flooding compounds, control systems, screens and stencils

**CP421** 25 single pack presaturated wipes

*Also available in an aerosol — ES1621. See page 5.*



CP410

CS25

## Chempad™ Presaturated Wipe

General purpose, presaturated lint-free cleaning wipe

- Contains ultra pure blend of 91% IPA/9% deionized water
- Highly saturated
- Thick, non-abrasive, wiping pad
- Quickly removes dust, oils and contaminants

**CP400** 50 single pack presaturated wipes

## Optic Prep™ Presaturated Wipe

Highest quality premoistened lens-grade tissue for cleaning optical surfaces

- Safely cleans and polishes optical surfaces, lenses, photographic equipment, fiber optic connectors and instruments
- Compatible with most plastics, glass and metals
- Mild cleaning solution, nonabrasive wipe
- Quickly removes dust, oils and contaminants connectors and instruments

**CP410** 50 single pack presaturated pads

## Chemswab™ Presaturated Swab

Easy to use swab presaturated with alcohol

- Urethane foam swab (Foamtips™ #120) presaturated with ultra-pure IPA
- Evaporates quickly with no residue or contamination
- Nonabrasive
- Ideal for field service kits

**CS25** 25 presaturated swabs



**Chemtronics® Dry Wipes** are engineered and manufactured clean. They are designed for controlled environments, light industrial, benchtop, laboratory and high absorbency applications.

They are ideal for use with strong solvents and the full range of engineered Chemtronics® cleaners; Electro-Wash® cleaner degreasers, Static Free™ static control products and Flux-Off® flux removers.

- High absorbency
- Contamination control
- High-purity
- Little or no linting

## Coventry™ Non-Woven Wipes

Coventry™ Econowipes™ are made from a hydro-entangled, 45/55 cellulose/polyester blend, for optimum purity in a nonwoven wipe. Econowipes™ are available in three convenient sizes.

Product	Material	Quantity	Size
6704	Polyester/cellulose blend, nonwoven	1200	4" x 4" 10.2 cm x 10.2 cm
6704F	Polyester/cellulose blend, nonwoven	100	4" x 4" 10.2 cm x 10.2 cm
6709	Polyester/cellulose blend, nonwoven	300	9" x 9" 22.9 cm x 22.9 cm
6713	Textured polyester/cellulose blend, nonwoven, quarter-folded	50	12" x 13" 30.5 cm x 33.0 cm





## Coventry™ Cleanroom Polyester and Microfiber Wipes

Coventry™ cleanroom laundered wipes offer an extra level of protection for critical applications. Our Poly-Wipes are made from 100% continuous filament polyester — the standard in cleanroom wipes — minimizing particle generation. The Cleanroom Chamois™ is the only wipe made from a 50/50 nylon/cellulose microfiber blend, providing superior toughness and particle entrapment. The microfibers in the Cleanroom Chamois™ have a unique wedge shape, which lifts all types of contaminants from the surface more effectively than conventional round fibers. Poly-Wipes and Cleanroom Chamois™ are both laundered in our Class 10 (ISO Class 4) cleanroom and are available with our exclusive laser-edge (LE) or heat cut (HC) sealing process.

Product Name	Part Number	Material	Quantity	Size
Poly-Wipes	6209	Light-weight polyester (high absorbency)	150	9" x 9" 22.9 cm x 22.9 cm
Poly-Wipes	6259	Heavy-weight polyester (high absorbency)	150	9" x 9" 22.9 cm x 22.9 cm
Sealed Edge Poly-Wipes	6259HC	Heavy-weight polyester (high absorbency)	150	9" x 9" 22.9 cm x 22.9 cm
Sealed Edge Poly-Wipes	6209HC	Light-weight polyester (high absorbency)	150	9" x 9" 22.9 cm x 22.9 cm
Sealed Edge Poly-Wipes	62096HC	Light-weight polyester (high absorbency)	150	6" x 9" 15.2 cm x 22.9 cm
Sealed Edge Cleanroom Chamois™	7348LE (high absorbency)	Microfiber	50	8" x 8" 20 cm x 20 cm

## Coventry™ Poly Double-Onyx ESD Wipes

ESD safe, black polyester monofilament wipe

- Class 100 – 1000 (ISO 5-6) black, laser-sealed edge polyester wipe
- Static dissipative within 10<sup>7</sup>-10<sup>9</sup> range for S20.20 compliance
- Conductive material is double-sided and double-density for maximum continuity to ground
- High durability for cleaning rough, abrasive, or irregular surfaces

**6259BESD2** 9" x 9" (22.9cm x 22.9cm) black laser-sealed polyester wipe, 140g/m<sup>2</sup>, 150 wipes/bag



### How To Use

When folded corner-to-corner, Poly Double-Onyx ESD Wipes form a dissipative grid that allows the wipe to be grounded.



# 1

Flatten wipe



# 2

Fold wipe corner-to-corner



# 3

Fold wipe corner-to-corner again

## Twillwipes™

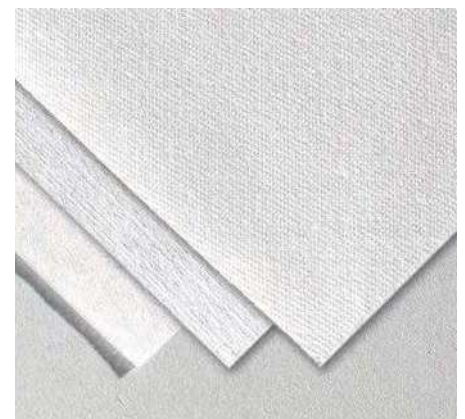
Highly absorbent wipe for abrasion-free cleaning and drying of sensitive surfaces, components and equipment

- Strong, textured 100% cotton
- Minimal linting
- Cleanroom Compatible Class 1000 / ISO Class 4
- Resistant to caustic solvents and temperatures up to 302°F/150°C

### Applications:

- Cleaning applications involving high temperature
- Ideal for use with caustic solutions

**C900** 150 wipes 9" x 9" / 23 cm x 23 cm





**Chemtronics® Swabs and Applicators** are engineered for use in a variety of environments and applications. They are ideal for use with our cleaner degreasers, head cleaners, flux removers and other solvents for fast, precision cleaning. From the innovative no-lint Chamois Tips™ Swab to the general purpose Cottontips™ Swab, Chemtronics® has the right swab or applicator for your job.



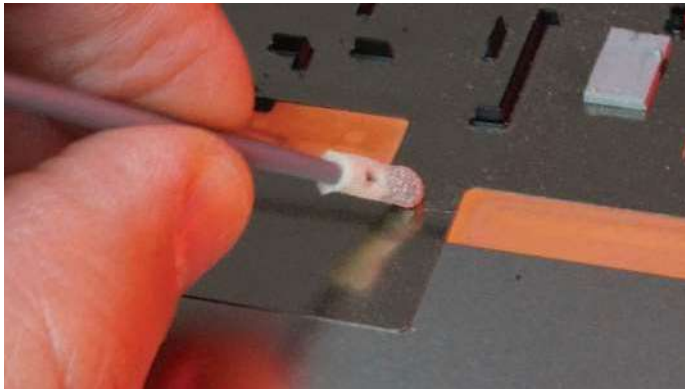
## Foamtips™







Highly absorbent precision cleaning swab with a wide variety of head sizes and shapes

- Precision cleaning swabs with 100 ppi polyurethane open cell foam head
- Purest medical grade foam
- Foamtips™ Pro swab (CFP50) has a blue scrubber end and a soft absorbent end
- Available in a variety of head sizes and shapes with various handle lengths

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
Foamtips™ Pro CFP50	50 swabs	6.75" 17.1 cm	0.20" x 0.13" 4.8 mm x 3.3 mm	<b>white head:</b> 0.75" 19.1 mm	<b>white head:</b> 0.44" 11.1 mm	polypropylene	<b>white side:</b> 100 ppi open cell foam
				<b>blue head:</b> 0.69" 17.5 mm	<b>blue head:</b> 0.28" 17.1 mm		<b>blue side:</b> 75 ppi closed cell
Foamtips™ #100 CF50	50 swabs	6.10" 15.5 cm	0.06" x 0.06" 1.5 mm x 1.5 mm	0.88" 22.4 mm	0.38" 9.7mm	wood	100 ppi open cell foam over cotton bud
43170	500 swabs	6.10" 15.5 cm	0.06" x 0.06" 1.5 mm x 1.5 mm	0.88" 22.4 mm	0.38" 9.7mm	wood	polyurethane foam over cotton
Foamtips™ #110 CF1050	50 swabs	5.00" 12.7 cm	0.28" x 0.13" 7.1 mm x 3.3 mm	1.00" 25.4mm	0.82" 20.8 mm	polypropylene	100 ppi open cell foam
Foamtips™ #120 CF2050	50 swabs	5.12" 13.0 cm	0.19" x 0.13" 4.8 mm x 3.3 mm	1.00" 25.4 mm	0.46" 11.7 mm	polypropylene	100 ppi open cell foam
Foamtips™ #130 CF3050	50 swabs	6.00" 15.2 cm	0.13" x 0.13" 3.3 mm x 3.3 mm	0.75" 19.1 mm	0.25" 6.4 mm	polypropylene	100 ppi open cell foam
49280	500 swabs	6.5" 16.4 cm	0.12" 3.1 mm	0.68" 17.3 mm	0.18" x 0.19" 4.7 mm x 4.7 mm	polypropylene	polyurethane foam

# Swabs and Applicators



Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
<b>Foamtips™ #140 CF4050</b>	50 swabs	2.87" 7.3 cm	0.10" x 0.10" 2.5 mm x 2.5 mm	0.50" 12.7 mm	0.19" 4.8 mm	polypropylene	100 ppi open cell foam
							
<b>Coventry 41050</b>	500 swabs	2.8" 7.2 cm	0.10" 2.6 mm	0.40" 0.2 mm	0.13" x 0.14" 3.3 mm x 3.5 mm	polypropylene	polyurethane foam
							
<b>Coventry 44070</b>	500 swabs	3.2" 8.0 cm	0.10" 2.4 mm	0.39" 9.9 mm	0.11" x 0.13" 2.7 mm x 3.3 mm	polypropylene	polyurethane foam
							
<b>Coventry 48040</b>	500 swabs	2.7" 6.8 cm	0.09" 2.2 mm	0.41" 10.5 mm	0.10" x 0.12" 2.5 mm x 3.1 mm	polypropylene	polyurethane foam
 flexible head							
<b>Flextips™ CX50</b>	50 swabs	4.45" 11.3 cm	0.16" x 0.16" 4.1 mm x 4.1 mm	0.81" 20.6 mm	0.25" 6.4 mm	nylon/polypropylene	100 ppi open cell foam
 flexible head							
<b>Flextips™ Mini CXM50</b>	50 swabs	4.13" 10.5 cm	0.16" x 0.16" 4.1 mm x 4.1 mm	0.53" 13.5 mm	0.19" 4.8 mm	nylon/polypropylene	100 ppi open cell foam
 flexible head							

## Chamois Tips™

Ideal swab for cleaning magnetic and optical, audio and video heads

- Synthetic chamois cloth head
- Material is free of oils and residues
- Flexible handle bends to clean hard-to-reach areas
- Bonded without adhesives
- Seamless construction
- Effectively cleans excess ink from ink jet cartridges
- Abrasion resistant
- Non-snagging

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
<b>CC50</b>	50 swabs	3.25" 8.3 cm	0.38" x 0.07" 9.7 mm x 1.8 mm	0.88" 22.4 mm	0.38" 9.7 mm	ABS (acrylonitrile-butadiene-styrene)	synthetic chamois cloth



## Coventry™ Sealed Polyester Swabs

Exceptionally clean, tough and durable swabs

An exceptionally clean swab produced by Coventry's proprietary process of forming and welding the swab head without the use of adhesives. Featuring either knit or nonwoven fabric heads, these swabs are acid and solvent resistant. Sealed edges build in high strength with no loose fibers or particulates. Coventry sealed polyester swabs have the strongest seams available and will not split. They are ideal for tough scrubbing around raised shapes. Class 10 (M3, ISO 4) processing gives you low ionic, nonvolatile residue and particle contaminants.

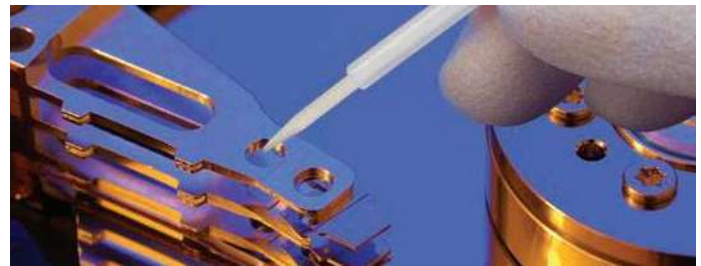


Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
36060	500 swabs	5.8" 14.7 cm	0.12" 3.1 mm	0.75" 18.9 mm	0.19" x 0.21" 4.7 mm x 5.4 mm	polypropylene	knit polyester
36850	500 swabs	5.8" 14.7 cm	0.12" 3.1 mm	0.75" 18.9 mm	0.19" x 0.21" 4.7 mm x 5.4 mm	polypropylene	knit poly/nylon microfiber
34860*	500 swabs	2.8" 7.1 cm	0.09" 2.3 mm	0.47" 11.9 mm	0.10" x 0.10" 2.6 mm x 2.6 mm	polypropylene	knit poly/nylon microfiber
38040	500 swabs	2.7" 6.9 cm	0.09" 2.3 mm	0.44" 11.2 mm	0.09" x 0.12" 2.4 mm x 3.0 mm	polypropylene flexible tip	knit polyester
38140	500 swabs	2.7" 6.9 cm	0.09" 2.3 mm 1	0.48" 2.1 mm	0.06" x 0.12" 1.6 mm x 3.0 mm	polypropylene flexible tip	knit polyester
38540	500 swabs	2.7" 6.9 cm	0.09" 2.3 mm	0.46" 11.7 mm	0.04" x 0.12" 1.0 mm x 3.0 mm	polypropylene flexible tip	nonwoven polyester

## Microtips™

Precision applicator for pinpoint solvent, adhesive and lubricant application

- Porous polyvinylidene fluoride-tipped precision applicator and cleaning tool
- Low extractables and particulate levels
- High chemical resistance – compatible with most solvents
- 1.9 mm tapered tip
- Excellent choice for depositing solvents, adhesives and coatings
- Effective as a stylus or pick



Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
CM502	50 swabs	6.7" 17.0 cm	0.13" x 0.13" 3.3 mm x 3.3 mm	0.62" 15.7 mm	0.08" 1.93 mm	polypropylene	polyvinylidene fluoride

# Swabs and Applicators

## Coventry™ Wrapped Swabs

**Durable & seamless wrapped foam swabs designed for precise applications**

Our wrapped foam swabs provide good particle entrapment and work very well as adhesive, lubricant and solvent applicators. Wrapped swabs deliver superior abrasion resistance for removal of tough contaminants. Wicking action pulls solvent from surfaces. The small tips on some of the styles allow use in very tight tolerance areas, while the pointed ends work especially well as picks.

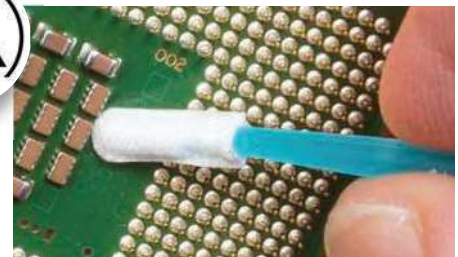


Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
20050	500 swabs	2.6" 6.7 cm	0.09" 2.2 mm	1.06" 27.0 mm	0.12" x 0.12" 3.1 mm x 3.1 mm	wood	polyurethane foam
20080	500 swabs	2.6" 6.7 cm	0.09" 2.2 mm	0.89" 22.6 mm	0.11" x 0.11" 2.8 mm x 2.8 mm	wood	polyurethane foam
21050	500 swabs	2.8" 7.1 cm	0.10" 2.5 mm	1.08" 27.5 mm	0.14" x 0.14" 3.7 mm x 3.7 mm	nylon	polyurethane foam
51353	100 swabs	2.8" 7.1 cm	0.10" 2.6 mm	0.78" 19.8 mm	0.16" x 0.16" 4.1 mm x 4.1 mm	glass filled nylon	tubular knit polyester

## Coventry™ High Precision ESD Static Control Swabs

**Protects components from destructive static discharge**

Engineered to eliminate damage from static electricity. The handles of these swabs will dissipate 99% of a 5,000 volt (5 KV) charge in less than 2.0 seconds. The static dissipative plastic alloy used to make the handles is inherently static dissipative. It contains no additives, coatings or surfactants so it functions at any level of humidity and it is very resistant to solvents — even acetone. Choose between our Class 10 (M3, ISO 4) laundered polyester or 100 pore-per-inch ultraclean polyurethane foam.



## Coventry™ Sealed Polyester ESD Swabs

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
36060ESD	500 swabs	5.8" 14.7 cm	0.12" 3.1 mm	0.75" 18.9 mm	0.19" x 0.21" 4.7 mm x 5.4 mm	ESD	knit polyester
31040ESD	500 swabs	2.8" 7.2 cm	0.10" 2.7 mm	0.44" 11.0 mm	0.12" x 0.12" 3.1 mm x 3.1 mm	ESD	knit polyester
38040ESD	500 swabs	2.7" 6.9 cm	0.09" 2.3 mm	0.44" 11.2 mm	0.09" x 0.12" 2.4 mm x 3.0 mm	ESD	knit polyester
38540ESD	500 swabs	2.7" 6.9 cm	0.09" 2.2 mm	0.47" 12.0 mm	0.16" x 0.16" 4.0 mm x 4.0 mm	ESD	non-woven polyester
36861CLR	500 swabs	6.5" 16.5 cm	0.12" 3.0 mm	0.67" 17.0 mm	0.28" x 0.14" 7.0 mm x 3.5 mm	ESD	knit polyester





## Coventry™ Sealed Microfiber EDS Swabs

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
36863SDC	500 swabs	6.5" 16.5 cm	0.12" 3.0 mm	0.60" 15.0 mm	0.26" x 0.12" 6.5 mm x 3.0 mm	ESD	woven microfiber



## Coventry™ Polyester Pillow-Tip™ ESD Swabs

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
51121ESD	25 swabs	2.8" 7.1 cm	0.10" 2.5 mm	0.40" 10.2 mm	0.25" x 0.23" 6.5 mm x 5.7 mm	ESD	knit polyester



## Coventry™ Sealed Foam ESD Swabs

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
49250ESD	500 swabs	5.75" 14.6 cm	0.12" 3.0 mm	1.06" 27.0 mm	0.47" x 0.32" 12.0 mm x 8.0 mm	ESD	polyurethane foam



41050ESD	500 swabs	2.8" 7.2 cm	0.10" 2.6 mm	0.40" 10.2 mm	0.13" x 0.14" 3.3 mm x 3.5 mm	ESD	polyurethane foam
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48040ESD	500 swabs	2.7" 6.9 cm	0.09" 2.2 mm	0.43" 11.0 mm	0.12" x 0.09" 3 mm x 2.2 mm	ESD	polyurethane foam
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44070ESD	500 swabs	3.2" 8.0 cm	0.10" 2.4 mm	0.39" 9.9 mm	0.11" x 0.13" 2.7 mm x 3.3 mm	ESD	polyurethane foam
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44070SDC	500 swabs	3.2" 8.1 cm	0.10" 2.4 mm	0.39" 9.9 mm	0.11" x 0.13" 2.7 mm x 3.3 mm	ESD	polyurethane foam
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49285CLR	500 swabs	6.5" 16.5 cm	0.12" 3.0 mm	0.67" 17.0 mm	0.32" x 0.2" 8.0 mm x 5.0 mm	ESD	polyurethane foam
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## Coventry™ Wrapped Foam ESD Swabs

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
21050ESD	500 swabs	2.8" 7.1 cm	0.10" 2.5 mm	1.08" 27.5 mm	0.14" x 0.14" 3.7 mm x 3.7 mm	ESD	polyurethane foam



# Swabs and Applicators

## Cottontips™ & Cottontips™ Low Lint

Economical swabs designed for general cleaning applications

- 100% pure pharmaceutical grade bleached white cotton head
- Soft and highly absorbent
- Compatible with most solvents
- Available with single or double head
- Rigid wooden handle

### Cottontips™ Low Lint:

- Special low lint cotton fibers used for critical, low particle applications



Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
<b>Cottontips™ Single-Head</b>							
<b>CT100</b>	100 swabs	6.00" 15.2 cm	0.08" x 0.08" 2.0 mm x 2.0 mm	0.63" 16 mm	0.19" 4.8 mm	wood	cotton



<b>Cottontips™ Double-Head</b>							
<b>CT200</b>	100 swabs	6.00" 15.2 cm	0.08" x 0.08" 2.0 mm x 2.0 mm	0.63" 16 mm	0.19" 4.8 mm	wood	cotton
<b>CT2000</b>	1000 swabs	6.00" 15.2 cm	0.08" x 0.08" 2.0 mm x 2.0 mm	0.63" 16 mm	0.19" 4.8 mm	wood	cotton



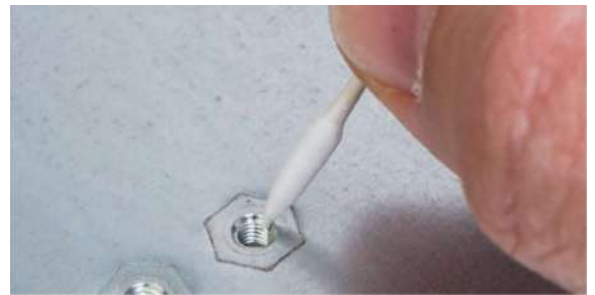
<b>Cottontips™ Low Lint</b>							
<b>CT5000</b>	1000 swabs	6.00" 15.2 cm	0.08" x 0.08" 2.0 mm x 2.0 mm	0.63" 16 mm	0.19" 4.8 mm	wood	cotton



## Cottontips™ MicroPoint

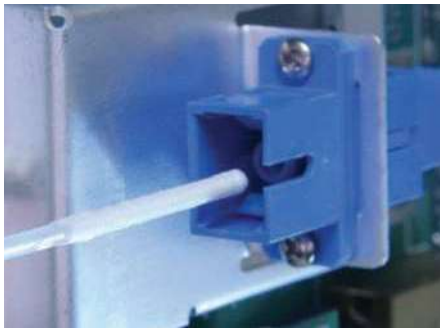
Low particulate, pointed cotton swab, designed for precision applications

- Tightly wrapped head construction
- Small size for delicate precision cleaning
- Extremely Low linting
- High absorbency capacity and rate
- Good solvent compatibility
- Sharp point
- Non-static generating



Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Width	Handle Material	Head Material
<b>Cottontips™ MicroPoint</b>							
<b>CCT2425</b>	25 swabs	3.0" 7.6 cm	0.06" x 0.06" 1.5 mm x 1.5 mm	0.47" 11.9 mm	0.12" 3.0 mm	Paper composite	cotton

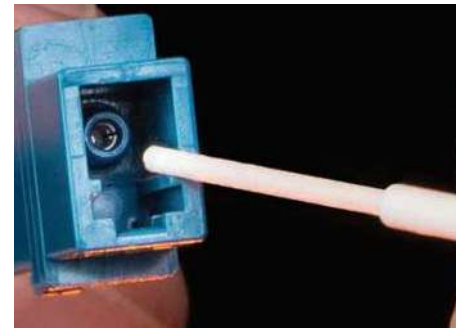




25183



48040



25123X

## 2.5mm Precision Fiber Optic Swabs

Ideal precision cleaning swab for cleaning 2.5 mm fiber optic connectors

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Thickness	Head Width	Handle Material	Head Material
25183	100/bag	6.0"/15.2 cm	0.08"/2.0 mm	1.0"/2.5 cm	0.10"/2.5 mm	0.10"/2.5 mm	Polypropylene	Proprietary Foam Material



## 2.5 mm Fiber Optic Foam Swab

Versatile, effective, and cost-efficient swab for cleaning end faces and equipment test ports

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Thickness	Head Width	Handle Material	Head Material
48040	500/bag	2.7"/6.8 cm	0.09"/2.2 mm	0.41"/10.5 cm	0.10"/2.5 mm	0.12"/3.0 mm	Polypropylene	Polyurethane Foam
48042F	50/tube							



## 1.25mm Fiber Optic Sleeve Cleaning Swab

Ideal tool for cleaning 1.25 mm fiber optic sleeves, back plane connections and polishing pucks

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Thickness	Head Width	Handle Material	Head Material
25123X	100/bag	6.0"/15.2 cm	0.08"/2.0 mm	0.67"/1.7 cm	0.05"/1.25 mm	0.05"/1.25 mm	Polypropylene	Proprietary Polyester
25125F	15/tube							



## V-Groove & Ferrule Cleaning Swabs

Swab for V-groove and ferrule cleaning

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Thickness	Head Width	Handle Material	Head Material
38540	500/bag	2.7"	0.09"	0.46"	0.04"	0.12"	Polypropylene	Nonwoven
38542F	50/tube	6.9 cm	2.3 mm	11.7 mm	1.0 mm	3.0 mm	Flexible Tip	Polyester



## Fusion Splice Mirror Cleaning Swabs

Cleanroom laundered fabric formed into a unique tool for fusion splice mirror cleaning

Product	Pkg Count	Swab Length	Handle Width	Head Length	Head Thickness	Head Width	Handle Material	Head Material
51121	25/bag	2.8"/7.1 cm	0.10"/2.5 mm	0.40"/10.2 mm	0.25"/6.5 mm	0.23"/5.7 mm	Glass Filled Nylon	Knit Polyester
51125F	15/tube							



# Fiber Optic Cleaning Products



## QbE® Cleaning Platforms

Portable, efficient wiping platform for cleaning fiber optic end faces

QbE® Cleaning Platforms offer a more complete removal of microscopic contaminants, without the chance of damage to the optical fiber end face. Self-contained cleaning tools that can be used dry or wet, they are convenient and economical for use in field or OEM applications.

- Complete Fiber Optic Cleaning System — no refills to buy or investment in expensive mechanisms to maintain
- Up to 600 cleaning applications using the Combination Cleaning™ process
- Provides the optimum cleaning surface — FiberSafe™ cleaning platen is perfect for outside plant or OEM applications
- Heavy duty lint-free wiping material — tough enough to remove buffer-gel and heavy soils, yet soft and compliant for safe end face cleaning
- Patented — U. S Patent Number 6,865,770 and foreign patents

### QbE – Cleaning Platform for LC, SC, ST & FC Connectors

**QBE** 200 perforated wipes per box  
2.75" x 3" / 7.0 cm x 7.6 cm

### Cleaning Platform for LC, SC, ST & FC Connectors

Cleaning surface is grooved for alignment pins on MT and MPO connectors.

**QBE-R** 200 perforated wipes per box  
2.75" x 3" / 7.0 cm x 7.6 cm

### Cleaning Platform for LC, SC, ST & FC Connectors

Cleaning surface is grooved for alignment pins on MT and MPO connectors.

**PQBE** 200 perforated wipes per box  
1.375" x 3" / 3.6 cm x 7.6 cm

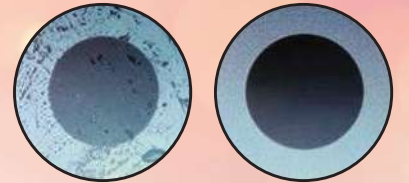
### Cleaning Platform for LC, SC, ST & FC Connector

**QBE-2** 200 perforated wipes per box  
1" x 2.5" / 2.54 cm x 6.35 cm



## FOCCUS™ Combination Cleaning™

Clean the first time... Every time!

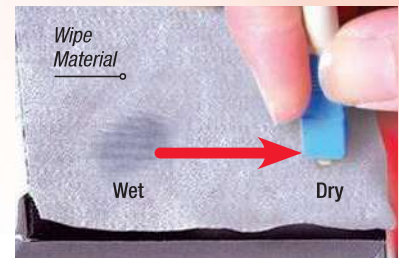


Connector contaminated with dirt & oils

Connector after FOCCUS™ Combination Cleaning™

FOCCUS products are designed for optimal cleaning of connectors using the Combination Cleaning™ process. The end face is passed through a lightly moistened spot on the lint-free wiper, then drawn into the dry area. The large cleaning platform assures the proper angle for UPC and APC connectors.

### Combination Cleaning™ Process



Effective on common soils:

- Finger oils
- Mineral oils and grease
- Gels & pulling lubricants
- Dust, dirt & carbon
- Water & salt residue & more

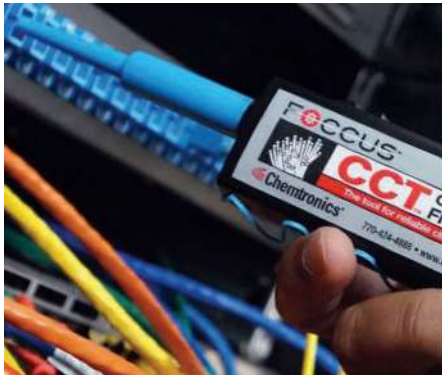
Combination Cleaning™ is industry proven, exceeding IEC 61300-3-35, IEC TR62627-01, and meeting Telcordia GR-2923-CORE and SAE Aerospace AIR6031.

Dry media can smear oils, not fully remove dry particulates, and can create a static field that attracts and holds onto additional debris. Wet cleaning can oversaturate connectors, drawing up contamination from around the ferrule. Without Combination™ Cleaning, additional cleaning passes, replacement jumpers or connectors may be required.

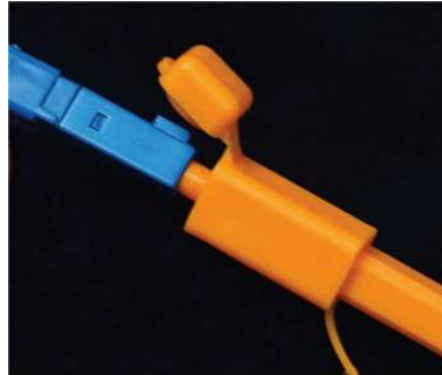


Scan to see the Combination Cleaning™ process in action.

## FOCCUS™ CONNECTING AT THE SPEED OF LIGHT™



Remove cap for cleaning adapters and bulkheads



Flip open cap for cleaning connectors

### CCT™ Clear Connection Tool

CCT™ Clear Connection Tool used with the FOCCUS™ MX Precision Cleaning Pen provides a fast, simple method of fiber optic cleaning. End faces in bulkheads or on cable assemblies are both effortlessly cleaned the first time . . . every time.

CCT has an easy to use mechanism that advances fabric over a cleaning tip with just a short push and click of the tool. Using the CCT with the FOCCUS MX Precision Cleaning Pen provides for fast, easy and repeatable Combination Cleaning™.

- Cleans connectors on back plane and on jumpers
- Uses Combination Cleaning™ process for first time cleaning, every time
- Effective for the widest range of contaminants
- Easy to use for quick and reliable cleaning
- Rugged and durable, great for all work sites
- Up to 800 cleanings per tool



**CCT-125 Clear Connection Tool**  
Cleaning tool for MU and LC connectors



**CCT-250 Clear Connection Tool**  
Cleaning tool for FC, SC and ST connectors



**CCT-MPO Clear Connection Tool**  
Cleaning tool for MPO connectors

### Combination Cleaning™ process with CCT Clear Connection Kits

To wet the CCT fabric tip with the MX pen, insert the CCT tip into the connector, and push in the tool 2-3 clicks advancing the fabric from wet-to-dry, perfectly cleaning the end-face. Combination Cleaning™ eliminates all debris and contamination the first time, avoiding expensive rework and truck-rolls from bad connections.



Combination Cleaning™ is industry proven, exceeding IEC 61300-3-35, IEC TR62627-01, and meeting Telcordia GR-2923-CORE and SAE Aerospace AIR6031.

### Electro-Wash® PX

Extra-strength universal cleaner and degreaser safe for use on plastics

- Safe on plastics
- Flammable
- Extra cleaning strength
- Dries fast
- Leaves no residue
- Removes organic and ionic soils
- All-Way Spray aerosol

ES810 5 oz / 141 g trigger aerosol



ES810

### Fiber-Wash™ Fiber Optic Cleaning Pens

- Specifically formulated for cleaning all fiber optic connectors
- Removes handling soils, dust, oils and airborne contamination
- Cleans alone or in combination with the SqR™, p-QbE®, QbE®, CCT Cleaning Platforms
- Cleans and eliminates static
- Completely portable; controlled dispensing of cleaning solution



**Fiber-Wash™ MX Precision Cleaner Pen**  
Convenient pen with the extra-strength, plastic safe precision cleaner

FW2150 9 g / 0.32 oz pen

FW2150BLK Box of 24 pens, 9g each



**Fiber-Wash™ AQ Precision Cleaner Pen**  
Nonflammable, aqueous fiber optic cleaner

FW2190 5 g / 0.2 oz pen



**Fiber-Wash™ NF Precision Cleaner Pen**  
Nonflammable, fast drying fiber optic cleaner

FW2170 10 g / 0.4 oz pen

# Fiber Optic Cleaning Kits



Shown: CFK1000

## FTTH Fiber Optic Cleaning Kits

Fiber-To-The-Home fiber optic cleaning kits

- Perfect for crews performing fusion splice operations, shipping kits to remote locations
- Cleaning supplies necessary for 2.5 mm end-face cleaning and successful fusion splicing
- Use Electro-Wash® PX Universal Cleaner or Electro-Wash® MX to clean the fusion splicer, mirror and V-groove

### FTTH Fiber Optic Cleaning Kits Include:

Precision Fiber Optic Cleaner (see below)

- 1 QbE® Cleaning Platform, 200 sheets (QbE)
- 50 2.5mm Foam Fiber Optic Swabs (48042F)
- 50 V-Groove and Ferrule Cleaning Swabs (38542F)
- 15 Fusion Splice Mirror Cleaning Swabs (51125F)
- 100 Lint-Free Precision Wipes, 4"x4" (6704F)
- 5 Electro-Wash® MX Premoistened Wipes (CP421)
- 1 Rugged Bag with carabineer attachment
- 1 Instructions

- CFK1000** 1 FTTH fiber optic cleaning kit with (1) Electro-Wash® PX Universal Cleaner (ES810)

## I & M Fiber Optic Cleaning Kits

Fiber optic installation and maintenance cleaning kits

- Cleaning supplies necessary for making a successful 2.5mm fiber optic connection
- MX Precision Cleaner Pens are compact and safe to transport
- Use Electro-Wash® PX Universal Cleaner or Electro-Wash® MX to clean the fusion splicer, mirror and V-groove

### I & M Fiber Optic Cleaning Kits Include:

Precision Fiber Optic Cleaner (see below)

- 1 QbE® Cleaning Platform, 200 sheets (QbE)
- 50 2.5mm Foam Fiber Optic Swabs (48042F)
- 100 Lint-Free Precision Wipes, 4"x4" (6704F)
- 5 Electro-Wash® MX Premoistened Wipes (CP421)
- 1 Rugged Bag with carabineer attachment
- 1 Instructions

- CFK1010** 1 I & M fiber optic cleaning kit with (1) Electro-Wash® PX Universal Cleaner (ES810)

- CFK1013** 1 Transportable I & M fiber optic cleaning kit with (2) Fiber-Wash™ MX Precision Cleaner Pens (FW2150)



## FOCCUS™

### Ribbon Matrix Removal Kit

Complete patented midspan matrix removal kit

- Includes FOCCUS Matrix Remover with modified delivery system
- Patented "Solvent Capture" process safely removes "matrix" from most ribbon cable in a timed process
- No tools, no cutting
- For up to 300 mid-span insertions

### CFK2000 Ribbon Matrix Removal Kit:

- 1 FOCCUS Matrix Remover (F1607)
- 1 Solvent capture binder



## FOCCUS™ Compact Cleaning Kit

Convenient on-site fiber optic cleaning kit

### CCK1 FOCCUS Compact Cleaning Kit:

- 1 SqR™ Cleaning Platform (SQR)
- 1 Fiber-Wash™ MX Precision Cleaner Pen (FW2150)
- 1 Reclosable package

## U.S. Government National Stock Numbers

Part #	Product Name	Page
0793-00-103-94802	ES1668 Plast-N-Glas®	14
3439-00-009-2334	7-5L Chem-Wik® Rosin	16
3439-01-009-6448	80-5-5 Soder-Wick®	15
3439-01-198-9716	80-4-10 Soder-Wick®	15
3439-01-324-8208	80-2-5 Soder-Wick®	15
3439-01-371-1588	10-5L Chem-Wik®	16
416850-01-514-1372	CW3500 CircuitWorks® Conformal Coating Remover Pen	21
4820-01-314-3601	ES710V Chrome Trigger Valve	12
5836-01-453-8942	CC50 Chamois Tips™	30
5836-01-454-0401	ES605L IPA	10
5836-01-454-0402	CP400 Chempad™	27
5970-01-417-4152	CTSR-12 Konform® SR	22
5970-01-417-4154	CTSR1 Konform® SR	22
5970-01-417-4156	CTAR1 Konform® AR	23
5970-01-417-4158	CTAR-12 Konform® AR	23
6616-00-077-3218	CF4050 Foamtips™ #140	30
6830-01-381-2675	ES1020K Ultrajet® System	12
6830-01-388-6924	ES1020R Ultrajet® Refill	12
6850-00-142-40716	ES1551 Freeze-It® Antistat	13
6850-00-602-2347	ES1631 Flux-Off® Heavy Duty	9
6850-01-224-9211	ES2400 Tun-O-Wash®	6
6850-01-393-9054	ES1210 Electro-Wash® PX	4
6850-01-412-0040	ES1020 Ultrajet®	11
6850-01-418-0499	ES1035 Flux-Off® Rosin	8
6850-01-436-4573	ES7300 Pow-R-Wash™ CZ	6
6850-01-436-4578	ES7200 Flux-Off® CZ	8
6850-01-436-4584	ES7100 Electro-Wash® CZ	4
6850-01-456-4173	ES835B Flux-Off® Rosin	8
6850-01-463-8043	ES1017 Duster	12
6850-01-463-8046	ES1217 Duster	12
6850-01-475-0987	CW8100 No Clean Flux Dispensing Pen	20
6850-01-484-3064	CP410 Optic Prep™	27
6850-01-506-5662	CW2200MTP Conductive Pen	18
6850-01-560-5804	ES1051 Freez-It® Antistat	14
7045-01-535-0276	CM502 Microtips™	31
7045-01-548-4966	CT5000 Cottontips™ Low Lint	30
7930-01-467-3289	CFP50 Foamtips™ Pro	29
7930-01-559-5328	CP421 Electro-Wash® MX Presaturated Wipe	4, 27
8030-01-511-6308	CW3300C CircuitWorks® Overcoat Pen	19
8510-01-358-8836	C805 Static Free™ Hand Guard™	14
9150-01-508-9999	CW7100 Conductive Grease	18
9390-01-552-1552	80-3-5 Soder-Wick®	15

Part Number	Product Name	Page	Standard / Specification
ES1020, ES1020R, ES1620, ES1015	All Ultrajet®, and Ultrajet® 70	11	Fed Spec A-A-58060, ARI Standard 700, App. C
CM8, CM1	Chemask®	24	MIL-STD-2000A, Para.5.3.18
CHV8	Chemask® HV High Viscosity	25	MIL-STD-2000A, Para. 5.3.1835,36
CLF8	Chemask® LF	24	MIL-STD-2000A, Para. 5.3.18
CNA8	Chemask® NA	24	MIL-STD-2000A, Para. 5.3.18
CWF8	Chemask® WF	25	MIL-STD-2000A, Para.5.3.18
All Chem-Wik®	Chem-Wik®	16	MIL-F-14256F, Type R, ANSMIPC J STD-004, Type ROLO NASA-STD-8739.3
All Chem-Wik®	Chem-Wik®	16	MIL-STD-1686C, MIL-HDBK-263B
All CircuitWorks®	CircuitWorks®	17-21	ANSMIPC J STD-001, IPC-7711
CW2500	CircuitWorks® Epoxy Overcoat	19	IPC-7721.2.4.1
CT40-5	CircuitWorks® Heat Sink Grease	17	MIL-DTL-47113D
CW8400	CircuitWorks® Lead-Free Flux Dispensing Pen	20	ANSI / IPC J-STD-004, Type ROLO; Bellcore TR-N-NWT-000078 and IPC SF-818 for Surface Insulation Resistance
CW8100	CircuitWorks® No Clean Flux Dispensing Pen	20	ANSMIPC SF-818, ANSMIPC J STD-004, Type ROLO Bellcore TR-NWT-000078
CW3300C, CW3300G	CircuitWorks® Overcoat Pen	19	IPC-CC-830A, MIL-I-46058C, Type AR
CW8200	CircuitWorks® Rosin Flux Dispensing Pen	20	MIL-F-14256F, Type R, ANSMIPC J STD-004, Type ROLO
CW8500	CircuitWorks® Tacky Flux	20	ISO 9454, Bellcore TR-NWT-000078, DIN EN 29454-1 1.1.3.C classification
CW8300	CircuitWorks® Water Soluble Flux Dispensing Pen	20	ANSMIPC J-STD-004, ORH1
ES1017, ES1617	Duster	12	Fed Spec A-A-58060, ARI Standard 700, App. C
ES7100	Electro-Wash® CZ	4	MIL-PRF-29608A (AS) Class C approved
CTAR-12, CTAR1	Konform® AR	23	MIL-I-46058C Type AR, IPC-CC-830A, UL Recognized
CTSR-12, CTSR1	Konform® SR	22	MIL-I-46058C Type SR, IPC-CC-830A, UL Recognized
CTSR-HV1	Konform® SR High Viscosity	22	MIL-I-46058C Type SR, IPC-CC-830A
ES7300	Pow-R-Wash™ CZ	6	MIL-PRF-29608A (AS) Class C approv
All Soder-Wick®	Soder-Wick®	15-16	MIL-F-14256F, Type R, ANSMIPC J STD-004, Type ROLO DOD-STD-883E, Method 2022, NASA-STD-8739.3
60 Series	Soder-Wick® No Clean	15	ANSMIPC J STD-004, Type ROLO, DOD-STD-883E, Method 2022 NASA-STD-8739.3, Bellcore TR-NWT-000078, ANSMIPC SF-818 Singapore Institute of Standards and Industrial Research (SISR) for Solderability
All Soder-Wick®	Soder-Wick®	15-16	MIL-STD-1686C, MIL-HDBK-263B, MIL-B-81705C, MIL-STD-2000A
Static Dissipative (ESD-Safe)		14	MIL-B-81705C, MIL-STD-2000A
C805	Static Free™ Hand Guard™	14	IPC-ESD-20-20, MIL-STD-1686C, MIL-HDBK-263B
ES1664T	Static Free™ Mat and Benchtop Reconditioner	14	IPC-ESD-20-20, MIL-STD-1686C, MIL-HDBK-263B

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7-50L	16	80-4-10	15	6713	27	CW2200MTP	18	ES197	9
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40-4-5	15	36060ESD	32	CF3050	29	CW3700	21	ES1020	11
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