

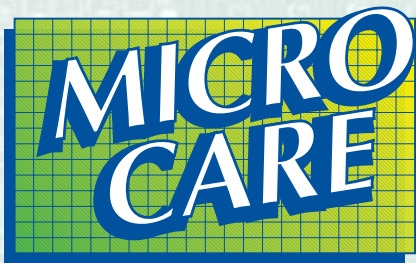
PRECISION BENCHTOP CLEANING PRODUCTS

From the World's Cleaning Experts



- Solvents & Cleaners* ■
- Money-Saving Dispensing Tools* ■
- Stencil Cleaning Products* ■
- Maintenance Cleaners* ■
- High-Performance Lubricants* ■
- New!** *Cleaners for Tool Kits* ■

MICRO CARE QUALITY



*The Micro Care Promise:
Micro Care products will deliver faster, better, safer,
cheaper benchtop cleaning, or your money back,
guaranteed.*



▲ Micro Care President Christopher Jones
and Vice President Mike Jones

In today's world, precision cleaning is more important than ever. If quality, productivity and performance are important in your business, then Micro Care should be your benchtop cleaning expert.

As you go from through-hole technology to surface mount designs to BGA and beyond, if you are cleaning optical components, medical assemblies, or even precision metal or ceramic designs, Micro Care has the answers you need. We offer the innovative solvents and money-saving tools to give you high-quality cleaning at the lowest possible cost. Micro Care also will improve your materials compatibility, reduce waste, enhance worker safety, protect the ozone layer, minimize smog-producing emissions and avoid the dangers of global warming.

In short, we *are* the world's cleaning experts. Which pretty much tells you everything you need to know.

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MORE ANSWERS.
ONLY FROM
MICRO CARE.*

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Cover: NASA/SCIENCE Photo Library...
Satellite map showing depletion or "hole"
in the ozone layer over Antarctica.

SOLVENT GUIDE

Picking the right solvent can be a daunting task. There are so many parameters to balance: cleaning power, component compatibility, safety, toxicity, drying speed, packaging, aroma and price, just to name a few. The list below is an attempt to simplify the selection process. For a more detailed analysis of your cleaning choices, check the interactive solvent selection guide at www.MicroCare.Com or call the cleaning specialists at Micro Care.



Circuit Board Cleaning		Optimal Choice	Other Great Choices	
Rosin Fluxes/Pastes (R, RA, RMA, SA Fluxes/Pastes)		Flux Remover C ^{1,4} MCC-FRC Medium-strength defluxer from DuPont. Great cleaning. Fast drying. Generally plastic-safe. Great environmentally. Works on no-cleans, too	SuprClean ^{TM 1,4} MCC-SPR	
			ProClean ^{TM 1,2,3,4} MCC-PRO	
"No Clean" Fluxes/Pastes, Mixed Types of Fluxes/Pastes		VeriClean ^{TM Defluxer} ^{1,2,4} MCC-DC1 Great cleaner. Low aroma. Plastic-safe. Fast drying. 91% VOC exempt. Great environmentally	Axarel ^{® 2200} ^{1,3,4} MCC-AXL	
			Flux Remover C ^{1,4} MCC-FRC	
			IsoClean ^{TM 1,3,4} MCC-BAC	
Water-Based Fluxes/Pastes		Flux Remover C ^{1,4} MCC-FRC A surprising capability from an HFC solvent. Great environmentally. Works on no-cleans, too	Axarel ^{® 2200} ^{1,3,4} MCC-AXL	
			ProClean ^{TM 1,2,3,4} MCC-PRO	
Mechanical Parts Light Oils, Grease, Lubricants		Heavy Duty Degreaser C ^{1,4} MCC-HDC Medium-strength. Great cleaning. Fast drying; targeted on organics. No aroma. Nonflammable	ExPoxy ^{TM Remover} ^{3,4} MCC-EPX	
			Reflow ^{TM Oven Cleaner} ^{2,4} MCC-ROC	
Epoxies & Chip Bonders (Uncured); Coatings (Acrylics)		ExPoxy ^{TM Remover} ^{3,4} MCC-EPX Most powerful hydrocarbon. Fabulous on uncured epoxies. Great on stencils and mis-printed PCBs	SuprClean ^{TM 1,4} MCC-SPR	
			VeriClean ^{TM 1,4} MCC-DC1	
			BGA Stencil Cleaner ^{2,4} MCC-BGA	
Kapton [®] Tape, Pressure-Sensitive Labels, Glues		TidyPen ^{® Label Remover} MCC-P01 Powerful cleaner in pocket-sized pen. Fast. Non-staining. Huge time-saver. Long-lasting	Bioact ^{® EC7M} ^{1,4} MCC-EC7M	
Inks, Marking Pens		ScreenClean ^{TM Ink Remover} ^{3,4} MCC-CDI Powerful, targeted cleaner. Great on UV-curable. Also good on uncured epoxies. Safe on screen emulsions	ProClean ^{TM 1,3,4} MCC-PRO	
Equipment Maintenance		Optimal Choice	Other Great Choices	
General Surface Cleaning (Fingerprints, Light Oils, Grime)		Plastic & Glass Cleaner ^{2,4} MCC-PMG Very good cleaning. Great toxicity ratings. No residues, no detergents, no streaks	StatMat ^{TM ESD Cleaner} ^{2,4} MCC-MAT	
			IsoClean ^{TM 1,3,4} MCC-BAC	
Burned-on Flux Residues (Reflow Ovens, Wave Solder Machines)		Reflow Oven Cleaner ^{TM 2,4} MCC-ROC Excellent cleaner. Great on wave solder systems, pick-and-place systems. No aroma. Nonflammable	QuickShot ^{TM Oven Cleaner} ¹ MCC-QRS	
Stencil Cleaning (Solder Paste)		BGA Stencil Cleaner ^{2,4} MCC-BGA Medium drying. Versatile. Great on pastes and epoxies. Nonflammable	ExPoxy ^{TM Remover} ^{3,4} MCC-EPX	
			Axarel ^{® 2200} ^{1,4} MCC-AXL	
Contact Cleaning		Contact Cleaner C ^{1,4} MCC-CCC HFC-based. Nonflammable. Safe on plastics. Fast drying. Affordable	Precision Cleaner II ^{1,4} MCC-PC2	
ESD Table Mats		Stat Mat ^{TM ESD Cleaner} ^{2,4} MCC-MAT Nonflammable. Renews ESD surfaces to protect components.		
Bulk Cleaning Systems		Optimal Choice	Other Great Choices	
Heated Vapor Defluxing/Degreasing Systems		Vertrel ^{® CMS} ^{1,4} or Vertrel ^{® CCA} ^{1,4} MCC-CMS, MCC-CCA Medium-strength HFCs. Great cleaning, fast drying; great on inorganics. Nonflammable	Vertrel ^{® SMT} ⁴ MCC-SMT	
Unheated Ultrasonic Systems, and Stencil Cleaning Systems and Emersion Systems		BGA Stencil Cleaner ^{2,4} MCC-BGA Medium drying; water-based, more versatile than Oven Cleaner. Nonflammable	RossTech ^{TM 106FE} ⁴ MCC-106FE	

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PACKAGING NOTES: Each solvent is available in: (1) aerosol sprays (2) refillable pump sprays (3) presaturated wipes (4) bulk packages. Not all products available in all countries. Contact your distributor or Micro Care for guidance.

DISCLAIMER: This is a general guide to cleaning applications and is not meant to replace individualized discussions. Micro Care publishes this information from sources believed to be accurate. Micro Care does not guarantee the accuracy of the data and assumes no liability in connection with using it. Micro Care's liability is limited to the replacement of product. Specifications are subject to change without notice.

For more information call (860) 827-0626 • In North America, dial 1-800-638-0125

Page 3

MONEY-*SAVING* CLEANING TOOLS

Upgrade Your Benchtop Cleaning

Look at all the ways your boards have changed and improved over the years. You've improved the way you manufacture them. You've improved their performance, their design, the materials and the components. At most facilities, about the only thing that hasn't changed is benchtop cleaning!

Here's the simple truth: if your techs are using "dip and brush" cleaning – and about 75% of the electronics industry still is! – they cannot rinse the contamination off the board. If you can't rinse, you can't clean.

What about high-pressure aerosols? They certainly are convenient. But they are extravagantly wasteful, and they expose your people to fumes and overspray.

The Trigger Grip™ system from Micro Care solves all these problems. It combines the inexpensive mechanical scrubbing of a brush with the speed and convenient rinsing of an aerosol. This instantly upgrades your benchtop cleaning. It standardizes benchtop cleaning into a convenient four-step process: wet, scrub, rinse, and dry. Each tech gets better control of the solvent and the whole cleaning process, so it's no surprise to find they do a better cleaning job.

The Trigger Grip pays for itself. Each Trigger Grip will help your techs clean better, faster and more safely, with less elbow grease. Companies save time, save solvent, eliminate waste, reduce their reject rates and improve quality. In fact, many companies find the Trigger Grip system slashes benchtop cleaning costs by 50% or more, saving money while protecting their people and the environment.

The Trigger Grip system from Micro Care — simply a better idea!



IMPORTANT BENEFITS FROM EVERY TRIGGER GRIP

- Standardized cleaning process for ISO-9000 quality
- ESD-safe materials enhance static control programs
- Light weight minimizes operator fatigue
- Precise control minimizes solvent waste
- Huge array of solvent choices
- Customizable with brushe tips for every application
- Ergonomic design
- 100% factory tested
- Unconditionally guaranteed
- Only from Micro Care

NEW: FOR TECHS WITH TOOL KITS

Here's another new idea from Micro Care. Many companies have technicians who travel to perform troubleshooting, maintenance and repair. But the airlines don't allow aerosol cleaners on planes any more. Either the solvents get shipped in advance — which is expensive — or the tech goes solvent shopping as soon as he gets off the plane... with expensive and unpredictable results.

Micro Care has the answer with TravelSAFE™ products. TravelSAFE solvents can be thrown in the tool kit without worries. Look for the TravelSAFE™ logo on solvents and products throughout his catalog. For more details, see the green box on Page 5, or call Micro Care.

Travel Safe
Chemical Packaging



TRIGGER GRIP CHOICES

The Solvent Miser™

The most popular Trigger Grip. Slashes solvent consumption, minimizes worker exposure to solvent fumes; minimizes user fatigue. Virtually indestructible, including hose and aerosol connectors. Produced from ESD-dissipative materials; complies with MIL-STD-2000 requirements. Equipped with the standard brush. The **Slo-Flo Solvent Miser™ Trigger Grip** is identical but equipped with the money-saving slo-flo brush. Ideal for use with slow-drying solvents. Patented.

Standard: #MCC-ESD

Slo-Flo: #MCC-ESD2

The Original Trigger Grip™

The same functionality as the Solvent Miser, but without the same durability and with slightly less ESD protection. Patented.

Standard: #MCC-STB

Slo-Flo: #MCC-STB2

StatZap™ ESD Eliminator

Use this durable stainless steel nozzle on canned air, freeze sprays and high pressure aerosols. It reduces ESD voltages generated by plastic spray tubes to a harmless 50 volts or less. The swagged CoronaTip™ sucks away harmful ESD. Unique plastic Shock-Shield™ sheathing prevents inadvertent contact with energized circuits. Patented.

For more information — Product Spec PS-73

#MCC-ZAP

▶ The StatZap™ reduces the risk of ESD damage from high-pressure sprays.



▲ The two-piece Bench Mounting Kit keeps the can upright and the work area neat.

Bench Mounting Kit

A low-cost, two-piece system that holds the Trigger Grip and the can of solvent vertically at the workbench. ESD-safe. Extremely durable. Extends Trigger Grip life. Ensures that aerosol cans will empty completely.

#MCC-BK



WHAT DOES "TravelSAFE™" MEAN?

In 2003 Micro Care introduced a new concept for technicians on the go: TravelSAFE™ products. These unique products enable technicians to carry solvents on commercial aircraft. They also reduce shipping costs, avoiding all the extra fees associated with shipping hazardous chemicals. These savings can be 75% or more of hazmat freight costs.

Each solvent is a non-flammable, non-hazardous, neutral pH cleaner. These are packaged in a 3 oz./85 gram pump spray. The pump spray is unpressurized and leak-proof containing approximately 400 sprays. This makes the TravelSAFE pack-

age ideal for tool boxes, instrument cases and installation kits.

The TravelSAFE package complies with all applicable safety regulations. Specifically, the TravelSAFE products are nonhazardous as defined by IATA "Dangerous Goods Regulations" (44th Edition) for air transport; by the Code of Federal Regulations; Title 49, Subchapter C, Parts 171 thru 180 for ground transport; and by the International Maritime Organization (IMO), "International Maritime Dangerous Goods Code" Amendment 31, for ocean shipments.

Contact Micro Care for more details.

BRUSHES



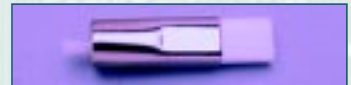
Our best-selling brush

#MCC-RBNB



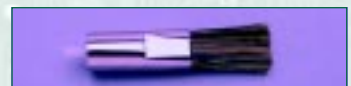
Slo-flo brush reduces waste

#MCC-RBNB2



Durable nylon; not ESD-safe

#MCC-RBN



Long-nose for cleaning pins
Slo-flo version

#MCC-LNB
#MCC-LNB2



Long-nose nylon brush

#MCC-LNN



Sable brush for detail work
Slo-flo version

#MCC-SQB
#MCC-SQB2



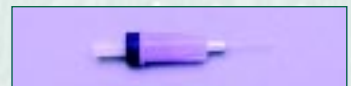
Standard surface-mount brush
Slo-flo version

#MCC-SMB
#MCC-SMB2



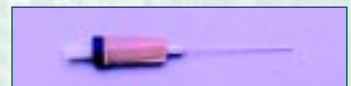
Rigid brush cuts PCB coatings

#MCC-STF



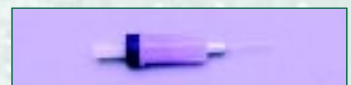
Smallest spray, .012" O.D.

#MCC-SR12



Medium size, .020" O.D.

#MCC-SR20



Powerful spray, .035" O.D.

#MCC-SR35

HIGH-PERFORMANCE DEFLUXERS



Flux Remover C

"Versatile" is the best way to describe Flux Remover C. Based on new solvent technology from DuPont, this is an excellent defluxer – especially on hard-to-clean "no-clean" fluxes and many water-based fluxes and pastes. With an ultra-low surface tension, it is the best choice for cleaning under tight-fitting BGA chips. It also can be used on through-hole boards, SMT designs, hybrid circuits, cables and connectors.

Travel Safe
Chemical Packaging



Noncorrosive and ultra-pure, static-safe Flux Remover C is safe on components and plastics. It is nonflam-

mable, quick-drying and has only a very slight aroma. Residue-free, rinsing is never required. It is ozone-safe, has a low global warming factor and a reduced VOC content. It is certified by DuPont for use in ultrasonic machines and vapor degreasers.

Select Flux Remover C when affordable, fast-drying, nonflammable, ozone-safe cleaning is required.

- Excellent defluxer
- Targeted on ionic contamination
- Nonflammable and fast drying
- Very slight aroma
- Great on "no-cleans"
- Available in TravelSAFE™ packaging

For more information — Product Spec PS-91



VeriClean® Defluxer

The "Gold Standard" in ozone-safe, people-safe, budget-safe cleaning. This powerful defluxer serves double-duty as a medium-strength degreaser. It works great on rosin- and "no-clean" fluxes and pastes; almost any oil or light grease, and many adhesives. It literally melts away "solventless" silicone-based conformal coatings.

Select VeriClean when acceptance by benchtop techs is a crucial factor.

- Great defluxer and light degreaser
- Great toxicity ratings
- Almost no aroma
- Brisk drying
- Melts away silicone-based conformal coatings
- Highest purity

For more information — Product Spec PS-72



SuprClean™ Defluxer

Excellent on all rosin based fluxes. Featuring innovative new solvents from DuPont, this unique cleaner is optimized for ozone-safe benchtop-level defluxing and degreasing. It dries quickly and is nonflammable. It has the best toxicity ratings of any solvent in its class. It compares to 1,1,1-TCA in cleaning strength but is completely ozone-safe. Test on plastics. Static-safe. Low odor.

Select SuprClean for super-powerful, fast-drying, nonflammable cleaning.

- Featuring Vertrel® HFCs
- Nonflammable
- Fast drying
- Good toxicity ratings
- Highly effective on rosin fluxes
- Exclusively from Micro Care

For more information — Product Spec PS-83



Other Choices

SpecClean® III

Powerful and easy to use. Based on HFE chemistries. Plastic-safe, nonflammable. Static-safe.

- Excellent toxicity ratings
- Very good on rosin fluxes
- No rinsing

For more information — Product Spec PS-76



Genesolv® 2004

Powerful, fast-drying, no aroma. Low aroma. Nonflammable. Static-safe. Test on plastics. A Class II Ozone Depleting Solvent now being phased-out. Available only while supplies last.

- HCFC-141b based
- Powerful
- Nonflammable

For more information — Product Spec PS-16



Flux Remover C

3 oz./85 g TravelSAFE™ pump	MCC-FRCS
10.5 oz./300 g Aerosol	MCC-FRC
10 lbs./4.54 kg Minipail	MCC-FRCG
50 lbs./22.68 kg Pail	MCC-FRCP
500 lbs./226.80 kg Drum	MCC-FRCD

VeriClean™ Solvent

10 oz./284 g Aerosol	MCC-DC1
6 lbs./2.72 kg Minicube	MCC-DC1G
32 lbs./14.50 kg Cubitainer	MCC-DC1P
345 lbs./156.48 kg Drum	MCC-DC1D

SuprClean™ Defluxer

12 oz./340 g Aerosol	MCC-SPR
10 lbs./4.54 kg Minipail	MCC-SPRG
50 lbs./22.68 kg Pail	MCC-SPRP
500 lbs./226.80 Kg Drum	MCC-SPRD

SpecClean™ Flux Remover III

12 oz./340 g Aerosol	MCC-SPC3
10 lbs./4.54 kg Minipail	MCC-SPC3G
50 lbs./22.68 kg Pail	MCC-SPC3P
500 lbs./226.80 kg Drum	MCC-SPC3D

Genesolv® 2004

12 oz./340 g Aerosol	MCC-2004
10 lbs./4.54 kg Minipail	MCC-2004G
50 lbs./22.68 kg Pail	MCC-2004P
500 lbs./226.80 kg Drum	MCC-2004D

Legend

- USER-FRIENDLY: FAST DRYING AND/OR LOW AROMA
- PLASTIC-SAFE
- ESD-SAFE
- NON-FLAMMABLE
- OZONE-SAFE
- MIL-SPEC APPROVED
- LOW VOC OR VOC-EXEMPT

MONEY-*SAVING* DEFLUXERS

ProClean™

For years our best-selling product, this cleaner delivers surprisingly strong cleaning despite its humble ingredients. A blend of three ultra-pure water-free alcohols, it is the strongest of the alcohol-based choices. It is safer than rubbing alcohol and an excellent choice on R, RA, SA, RMA, OA fluxes and "no-cleans."

Pleasant, mildly sweet aroma with excellent toxicity ratings. Medium drying. Static-safe. Mil-spec approved. Biodegradable, ozone-safe and plastic-safe.

Select ProClean when working on military products, or when cost containment is more critical than productivity.

- Great on solder pastes, fluxes and fresh chip-bonder
- Economical slow drying
- Suitable for military work
- Extremely cost-effective

For more information — Product Spec PS-45



MultiClean™

Mild and safe, this blend of alcohol and ultra-pure water. MultiClean is very aggressive on OA fluxes and pastes! Modest aroma, medium drying. Very good toxicity ratings. Plastic-safe, slow-drying, static-safe, ozone-safe, flammable. Select MultiClean for stencil cleaning, or for water-based contamination.

Not available in aerosol; only in presaturated wipes and bulk (unpressurized) packaging.

For more information — Product Spec PS-42



Axarel® 2200

For more than a decade, Axarel 2200 has been a trusted cleaner around the globe. This active hydrocarbon solvent is formulated for defluxing and degreasing. It works great on all fluxes, pastes, epoxies, grease and oil. Slight musty aroma. No rinsing. IPC Phase II approved. Combustible. Biodegradable. Ozone-safe. Generally plastic-safe.

Select Axarel when cleaning a wide variety of contamination and when slower drying is desirable.

- Great on all fluxes and pastes
- Medium drying
- Modest aroma

For more information — Product Spec PS-55



Other Choices

Bioact® EC7M

This muscular cleaner instantly attacks all fluxes, even water-based ones. Produced from Florida oranges. Ozone-safe. Slow drying. No rinsing. Biodegradable. Test on plastics. Good ventilation is mandatory.

- Naturally-occurring solvent
- Characteristic citrus aroma

For more information — Product Spec PS-18



HyperClean™

Similar to Genesolv 2004, but with additives which reduce solvent use and increase tack time. This Class II Ozone Depleting Solvent is being phased-out. Available only while supplies last.

For more information — Product Spec PS-57



ProClean™ Flux Remover

12 oz./340 g Aerosol	MCC-PRO
1.87 lbs./0.84 kg Presaturated Wipes	MCC-PROW
1 lbs./480 g Presaturated Wipe Refill	MCC-PROW
6 lbs./2.72 kg Minicube	MCC-PROG
32 lbs./14.51 kg Cubitainer	MCC-PROP
360 lbs./163.27 kg Drum	MCC-PROD

MultiClean™ OA Flux Remover

1.87 lbs./0.84 kg Presaturated Wipes	MCC-MLCW
1 lbs./480 g Presaturated Wipe Refill	MCC-MLCWR
6 lbs./2.72 kg Minicube	MCC-PROG
6 lbs./2.72 kg Minicube	MCC-MLCG
32 lbs./14.51 kg Cubitainer	MCC-MLCP

Axarel® 2200

10 oz./284 g Aerosol	MCC-AXL
1.87 lbs./0.84 kg Presaturated Wipes	MCC-AXLW
1 lbs./480 g Presaturated Wipe Refill	MCC-AXLWR
6 lbs./2.72 kg Minicube	MCC-AXLG
35 lbs./15.88 kg Cubitainer	MCC-AXLP
365 lbs./165.90 kg Drum	MCC-AXLD

Bioact® EC7M

10 oz./284 g Aerosol	MCC-EC7M
6 lbs./2.72 kg Minipail	MCC-EC7MG
35 lbs./15.88 kg Pail	MCC-EC7MP
399 lbs./180.99 kg Drum	MCC-EC7MD

HyperClean™

12 oz./340 g Aerosol	MCC-HYP
9 lbs./4.08 kg Minipail	MCC-HYPG
50 lbs./22.68 kg Pail	MCC-HYPP
525 lbs./238.14 kg Drum	MCC-HYPD



◀ Techs like these rugged cardboard "cubitainers" because they eliminate lifting heavy pails of solvent, avoiding spills.

SMT MAINTENANCE PRODUCTS



BGA Stencil Cleaner

12 oz./340 g Pump Spray (Refillable)

	MCC-BGA
7 lbs./3.18 kg Minicube	MCC-BGAG
32 lbs./14.51 kg Cubitainer	MCC-BGAP
400 lbs./181.44 kg Drum	MCC-BGAD

High-Performance Reflow Oven Cleaner

12 oz./340 g Pump Spray (Refillable)

	MCC-ROC
7 lbs./3.18 kg Minicube	MCC-ROCG
32 lbs./14.51 kg Cubitainer	MCC-ROCP
364 lbs./165.08 kg Drum	MCC-ROCD

MAINTENANCE CLEANERS

Micro Care's SMT maintenance products are packaged in money-saving refillable pump sprays. Packaged ten to a box, these products use metal, ESD-safe cans. Included in each box are 100 lint-free stencil wipes (#MCC-W11). These products are non-regulated, non-hazardous for shipping purposes, which means technicians can safely and legally carry them on aircraft.

BGA Stencil Cleaner

The BGA Stencil Cleaner is a versatile formulation which blends nonflammable water-based ingredients with aggressive long-chain alcohols. The result is a powerful cleaner which removes all types of solder paste, uncured chip bonders and inks. It is safe for stencils, webbing, frames and misprinted boards. This highly active cleaner minimizes the risk of damage from scrubbing with less powerful cleaners. And, yes, it can be used on standard SMT stencils as well.

The BGA Stencil Cleaner is formulated to work at room temperature. But since it is nonflammable, it also can be used in ultrasonic cleaning systems and in dip tanks. It is not suitable for use in the stencil printers themselves.

Safe on all metals, synthetics, plastics and elastomers, the BGA Stencil Cleaner leaves no residues and has a very modest aroma. It is noncorrosive and generally nontoxic. Completely ozone-safe, with a low VOC content and no global warming potential.

- *Speedy stencil cleaning*
- *Economical, slow drying*
- *New, NAFTA-compliant labels*
- *Nonfoaming — Safe for ultrasonics*
- *Refillable pump spray*

For more information — Product Spec PS-79



High-Performance Reflow Oven Cleaner

The High-Performance Reflow Oven Cleaner instantly melts away burned-on flux residues from wave solder machines and reflow ovens using a mix of water, alkaloids and long-chain alcohols. Strong, nonflammable and with almost no aroma, tests indicate the Oven Cleaner cleans twice as fast as isopropanol.

The cleaner works best when wiping and scrubbing warm soldering systems (>40°C/100°F). The residual heat boosts the solvent's cleaning power. Heat also can be used in dip tanks and ultrasonic cleaners to further enhance the solvent's cleaning.

This product cleans all types of flux residues. It is safe on pallets, baffles, heating elements, clamps, chains, drive gears and housings. When used on a warm oven, the cleaner dries quickly, leaves no residues and is noncorrosive. (At room temperature, it leaves a slight oily coating which evaporates slowly.) It is completely ozone-safe, with a low VOC content, low global warming and is generally nontoxic.

- *Fast, easy oven cleaning*
- *Nonflammable, water-based*
- *New, NAFTA-compliant labels*
- *Refillable pump spray*

For more information — Product Spec PS-79



Micro Care's BGA Stencil Cleaner works on standard SMT stencils, too. In fact, because it's nonflammable and non-foaming, it works great in stencil cleaning machines and ultrasonic dip tanks. It's a versatile, powerful, safe all-around surface cleaner and degreaser.

SURFACE CLEANERS

Plastic, Metal and Glass Cleaner

This is the strongest general-purpose surface cleaner ever offered by Micro Care. It is formulated for cleaning benchtops, cabinets, housings, keyboards, keypads, switches and relays, test equipment, conveyors, hand tools and all the other equipment found in the factory environment. It easily wipes away light grime, oils, fingerprints, pencil marks, pen inks and even coffee stains.

This cleaner contains no detergents. Those sticky, soapy residues never evaporate, and when they get behind keyboards they attract dirt and cause more problems than they solve.

Originally formulated for those communities with tight VOC restrictions, it is so powerful and effective that now everybody loves it and uses it!

This cleaner is completely safe on all metals, paints, ceramics, glass, benchtops and plastics. It leaves no residues and is noncorrosive. No rinsing required. Fast drying when wiped. Nonflammable. Good toxicity ratings. Plastic-safe. Static-safe. Slight ammonia aroma.

- Water-based, nonflammable
- Refillable pump sprayer
- Not for use on static dissipative mats

For more information — Product Spec PS-79



TidyPen® — The Original Pocket-Sized Cleaning Pen

What a great idea! Fast, convenient cleaning in your pocket. Take it anywhere! Great for removing marking tags, paper labels, stickers, EPROM labels and bar codes. Kapton® tape residues melt away easily and safely. Very cost-effective — a “must have” time-saver. Static-safe. Ozone-safe. Biodegradable.

- Recyclable, ESD-safe
- Dissolves anything sticky
- Biodegradable citrus solvent
- A naturally-occurring product

For more information — Product Spec PS-40



StatMat™ ESD Cleaner

This cleaner enhances and extends a facility's ESD program. As a general rule, every benchtop mat and floor mat should be cleaned once each shift. Micro Care has found dirty tools and mats on workbenches harboring up to 30,000 volts. After a thorough cleaning with StatMat, in less than 60 seconds, the voltage dropped to safe levels and, in some tests, to zero. This means this product quickly pays for itself in fewer defects and lower warranty costs.

There are three chemicals which must not be used to clean ESD mats: alcohols, ammonia, or high pH caustic soaps. StatMat™ ESD Cleaner avoids all of those damaging chemicals, which greatly improves ESD protection.

The cleaner is safe on all metals, plastics and elastomers. Unlike competing products, this cleaner has a neutral pH which protects the mats, plus it leaves no residues and is noncorrosive.

Completely ozone-safe. Low in VOCs. Low global warming potential. Good toxicity ratings. No rinsing required. Fast drying when wiped. Nonflammable. Plastic-safe. Static-safe. Slight soapy aroma.

- Water-based, nonflammable
- Refillable pump sprayer
- To protect mats, Neutral PH
- Mild, strawberry-like aroma

For more information — Product Spec PS-79



Plastic, Metal & Glass Cleaner

12 oz./380 g Pump Spray (Refillable)

MCC-4761

(MCC-PMG)

1 lb./480 g Presaturated Wipe

MCC-PMGW

1 lb./480 g Presaturated Wipe Refill

MCC-PMGWR

6 lbs./2.72 kg Minicube

MCC-PMGG

35 lbs./15.88 kg Cubitainer

MCC-PMGP

450 lbs./204.08 kg Drum

MCC-PMGD

StatMat™ ESD Cleaner

12 oz./340 g Pump Spray (Refillable)

MCC-MAT

7 lbs./3.18 kg Minicube

MCC-MATG

32 lbs./14.52 kg Cubitainer

MCC-MATP

400 lbs./181.44 kg Drum

MCC-MATD

TidyPen®

14 ml Pen, each, packaged

in a box of ten pens MCC-P01

14 ml pen, set of 3 pens in

money-saving, ready-to-mail

package L80881

Extra Chisel-Point Nibs

MCC-P40C

Extra Pen-Point Nibs

MCC-P40P



▲ Nothing whisks away sticky residues like the TidyPen — put one in your pocket or tool box today!

Legend

- ☺ USER-FRIENDLY: FAST DRYING AND/OR LOW AROMA
- ♻️ PLASTIC-SAFE
- ⊗ ESD-SAFE
- 🚫 NON-FLAMMABLE
- 🌿 OZONE-SAFE
- ✈️ MIL-SPEC APPROVED
- 🌱 LOW VOC OR VOC-EXEMPT

POWERFUL DEGREASERS



Heavy Duty Degreaser C

This is an environmentally progressive cleaner which is affordable, powerful and nonflammable. Formulated for removing organic contamination, such as oils, light grease and lubricants, from all types of metal, ceramic and plastic.

Noncorrosive and ultra-pure, it is an excellent choice for semiconductors, disk drives, switches and relays, motors and coils, gyroscopes, medical devices and any application in which reliability and performance are crucial.

Generally nontoxic. Nonflammable. Fast

drying.

Ozone-safe,

low VOC,

low global

warming.

Safe for vapor degreasers.

Travel Safe
Chemical Packaging



Select Heavy Duty

Degreaser C when removing organics from mechanical parts, especially if the part is likely to entrap solvents.

- Fast-drying, nonflammable
- Great on organics
- Unexpectedly affordable
- Safe in vapor degreasers
- Available in TravelSAFE™ packaging

For more information — Product Spec PS-92



Heavy Duty Degreaser C

3 oz./85 g TravelSAFE™ pump	MCC-HDCS
10.5 oz./300 g Aerosol	MCC-HDC
10 lbs./4.54 kg Minipail	MCC-HDCG
50 lbs./22.68 kg Pail	MCC-HDCP
500 lbs./226.80 kg Drum	MCC-HDCD

ExPoxy™ Remover

1.87 lbs./0.84 kg Wipes	MCC-EPXW
6 lbs./2.72 kg Minicube	MCC-EPXG
30 lbs./13.61 kg Cubitainer	MCC-EPXP
392 lbs./177.81 kg Drum	MCC-EPXD

Axarel® 2200

10 oz./284 g Aerosol	MCC-AXL
1.87 lbs./0.84 kg Presaturated Wipes	MCC-AXLW
1 lbs./480 g Presaturated Wipe Refill	MCC-AXLWR
6 lbs./2.72 kg Minicube	MCC-AXLG
35 lbs./15.88 kg Cubitainer	MCC-AXLP
365 lbs./165.90 kg Drum	MCC-AXLD

Heavy Duty Flux Remover III

12 oz./340 g Aerosol	MCC-HD3
10 lbs./4.54 kg Minipail	MCC-HD3G
50 lbs./22.68 kg Pail	MCC-HD3P
500 lbs./226.80 kg Drum	MCC-HD3D

Ionox® BC

8 lbs./ 3.63 kg Minicube	MCC-KBCG
30 lbs./13.60 kg Cubitainer	MCC-KBCP
480 lbs./217.70 kg Drum	MCC-KBCD

The new DuPont lubricants are clever, taking proven lubricating technology and making it better with fluoropolymer additives. These lubes out-perform all of the cheap consumer lubricants, lasting longer and working better. Money-saving industrial size package. Another first from Micro Care.

ExPoxy™ Remover

The most powerful hydrocarbon cleaner. Your best choice for removing uncured chip bonder from mis-printed boards, as well as tidying up spills and drips on machinery. ExPoxy gives technicians the most time to work with semi-cured chip-bonders. Works great on solder pastes, some inks, oils and grease. Mild, musty aroma. Static-safe. Plastic-safe. Ozone-safe. Combustible.

- Superior surface cleaning
- Economical slow drying

For more information — Product Spec PS-76



Axarel® 2200

A proven hydrocarbon degreaser. Slight musty aroma. Combustible. Ozone-safe. No rinsing. Biodegradable. Plastic-safe.

- Medium drying; modest aroma

For more information — Product Spec PS-55



Heavy Duty Flux Remover III

An aggressive HFE defluxer and degreaser. Test on plastics. Nonflammable.

For more information — Product Spec PS-76



Ionox® BC

Very aggressive. Not plastic-safe. Approved by MPM for use in their stencil printers.

For more information — Product Spec PS-46



CONTACT CLEANERS

All of the Micro Care contact cleaners are nonflammable, fast-drying, non-conductive and generally plastic-safe. This allows them to be sprayed on circuits and machinery safely. Micro Care does not use — and strongly urges others not to — flammable solvents as contact cleaners.

Featured Product

Contact Cleaner C

This is the highest-performance precision contact cleaner formulated by DuPont. It is nonflammable, nonconductive, plastic-safe and dries instantly, with almost no aroma. It can be used safely on circuit boards, cable harnesses, rinsing grit from electromechanical relays, dust from keyboards and light oils from solvent-trapping motor windings.

This is the most affordable cleaner in its class. Completely ozone-safe and 100% VOC-exempt. Safe on plastics, rubber and elastomers.

- Plastic-safe
- Completely ozone-safe
- Non-VOC
- Ultra-fast drying
- Nonflammable
- Available in TravelSAFE™ packaging

For more information — Product Spec PS-93



Other Choices

Precision Contact Cleaner III

A proven blend of ozone-safe HFE cleaners for mild, plastic-safe cleaning. Nonflammable.

For more information — Product Spec PS-76



Precision Contact Cleaner II

PFCs and HCFC cleaners. Plastic-safe, non-flammable. Mil-spec approved. A Class II Ozone Depleting Solvent being phased-out. Supplies limited.

For more information — Product Spec PS-60



Precision Electronics Cleaner

A mil-spec HCFC contact cleaner. Test on plastics. A Class II Ozone Depleting Solvent being phased-out. Supplies limited.

For more information — Product Spec PS-47



Contact Cleaner C

3 oz./85 g TravelSAFE™ pump	MCC-CCCS
10.5 oz./300 g Aerosol	MCC-CCC
10 lbs./4.54 kg Minipail	MCC-CCCC
50 lbs./22.68 kg Pail	MCC-CCCP
500 lbs./226.80 kg Drum	MCC-CCCD

Precision Contact Cleaner II

16 oz./454 g Aerosol	MCC-PC2
10 lbs./4.54 kg Minipail	MCC-PC2G
50 lbs./22.68 kg Pail	MCC-PC2P
500 lbs./226.80 kg Drum	MCC-PC2D

Precision Contact Cleaner III

16 oz./454 g Aerosol	MCC-PC3
10 lbs./4.54 kg Minipail	MCC-PC3G
50 lbs./22.68 kg Pail	MCC-PC3P
500 lbs./226.80 kg Drum	MCC-PC3D

Precision Electronics Cleaner

12 oz./340 g Aerosol	MCC-PEC
10 lbs./4.54 kg Minipail	MCC-PECG
52 lbs./22.68 kg Pail	MCC-PECP
500 lbs./226.80 kg Drum	MCC-PECD

VDX Aerosol Dry Lubricant

12 oz./340 g Aerosol	MCC-VDX
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DuPont Lubricants

Multi-Use Lubricant, 11 oz.	MCC-9203
Multi-Use Lubricant, 4 oz.	MCC-9206
Silicone Lubricant with Krytox®, 10 oz.	MCC-9204,
White Lithium Grease with Teflon®, 10 oz.	MCC-9205

LUBRICANTS

VDX Dry Lubricant Aerosol

A nonmigrating "pinpoint" lubricant for metal, plastic, ceramic, glass and wood. Plastic-safe, nonflammable, ozone-safe HFC carrier using 1.5% solids. No drips, runs or clumping! Great mold release. Available in aerosol and in bulk. Other dry lubricants available; others can be custom-formulated.

For more information — Product Spec PS-51



DuPont Multi-Use Lube

An all-surface, all-condition molybdenum lubricant enhanced with Teflon®. A wet, penetrating spray that sets-up clean, hard, long-lasting. Use on chains and linkages; bolts, threaded fittings; hinges, locks and latches; springs, pivots, cams and shafts; bearings, pulleys, wheels; and even zippers. Features a patented "self-cleaning" technology, so parts stay cleaner, work better and last longer.



DuPont Silicone Lube

A gentle, plastic-safe silicone lubricant enhanced with Krytox®. Clean, non-corrosive and will not evaporate, even in extreme temperatures. Waterproofs, protects and preserves rubber, plastic, leather, metal and wood; use on treadmills and fan belts. Protects steel, aluminum and chrome from salt, chlorine and corrosives. Has a very broad operating temperature (-40°F to +400°F)



DuPont Lithium Grease

The DuPont Lithium Grease with Teflon® is for long-term, high-endurance lubrication. It will not melt or breakdown even under extreme heat or the heaviest loads. Ideal for gears and shafts, heavy-duty chains, conveyors, rollers and tracks, hinges, brake parts, bearings, fan motors, sprockets, winches and more.



CONTACT CLEANERS

A true contact cleaner meets four requirements: fast-drying, nonflammable, plastic-safe and nonconductive (that's right — they must **not** be ESD-safe). These demanding requirements make contact cleaners more expensive than ordinary defluxers and degreasers. Check your requirements — maybe you can save money by switching to a simple defluxer or head cleaner. But here's an even more important tip from Micro Care: Micro Care recommends that no aerosol, including our own contact cleaners, be sprayed on systems which are still electrically energized. For maximum safety, always clean systems which have been powered-off.



Micro•Freeze™ Circuit Chiller

10 oz./284 g Aerosol MCC-FRZ

Anti-Stat Micro•Freeze™ Circuit Chiller

10 oz./284 g Aerosol MCC-FRZA

Micro•Blast™ "Canned Air"

10 oz./284 g Aerosol MCC-DST

10 oz./284 g Aerosol, StatZap™ compatible
MCC-DSTZ

Big•Blast™ "Canned Air"

14 oz./392 g Aerosol MCC-AIR

14 oz./392 g Aerosol, StatZap™ compatible
MCC-AIRZ

StatZap™ ESD Eliminator

Each MCC-ZAP

IsoClean® Head Cleaner

12 oz./340 g Aerosol MCC-BAC
6 lbs./2.72 kg Minicube MCC-4722
(MCC-BACG)

32 lbs./14.50 kg Cubitainer MCC-4724
(MCC-BACP)

355 lbs./161.00 kg Drum MCC-4725
(MCC-BACD)

Vertrel® XF

10 lbs./4.54 kg MCC-XFG

Vertrel® XP

10 lbs./4.54 kg MCC-XPG

Vertrel® MCA+

10 lbs./4.54 kg MCC-MCAPG

Vertrel® SMT

10 lbs./4.54 kg MCC-SMTG

Vertrel® XMS+

10 lbs./4.54 kg MCC-XMSG

Legend

- USER-FRIENDLY: FAST DRYING AND/OR LOW AROMA
- PLASTIC-SAFE
- ESD-SAFE
- NON-FLAMMABLE
- OZONE-SAFE
- MIL-SPEC APPROVED
- LOW VOC OR VOC-EXEMPT

TRADITIONAL AEROSOLS

Micro•Freeze™ Circuit Chillers

Chills to lower than -45°C in seconds. Used to locate intermittent faults in delicate components. Ultra-pure, ozone safe, nonflammable.

For more information — Product Spec PS-50



Anti-Stat Micro•Freeze™

Ozone-safe, ESD-safe freeze-spray. Meets mil-specs. Chills to -45°C in seconds. Non-toxic, nonflammable.

For more information — Product Spec PS-50



IsoClean™ Video- and Tape-Head Cleaner

Your "Basic Alternative Cleaner." Mild cleaning with ultra-pure, water free, isopropanol. A great head cleaner. Static-safe. Mil-spec approved and mild defluxer, well-suited to "no clean" fluxes and pastes.

For more information — Product Spec PS-48



Micro•Blast™ and Big•Blast™ "Canned Air"

Ozone-safe dry circuit cleaner ("canned air"). High pressure spray. Convenient trigger sprayer on each can. Nontoxic, nonflammable. Available in two configurations: the standard valve for maximum "blasting" power, and the money-saving "Z" valve which extends can life and is StatZap™ compatible. Specify by part number.

For more information — Product Spec PS-50



Related Products

StatZap™ ESD Eliminator

A durable, stainless steel dispensing nozzle for all high pressure aerosols. It eliminates ESD damage from the friction of solvent racing down plastic spray tubes, reducing ESD voltages to a harmless 50 volts or less. Shown on a can of Micro•Blast "canned air" on the upper left-hand corner of this page.

For more information — Product Spec PS-73

SOLVENTS FOR VAPOR CLEANERS

These are the "X" Series Cleaners, only from DuPont. (See also: *Flux Remover C*, Page 6; *Heavy Duty Degreaser C*, Page 10; and *Contact Cleaner C*, Page 11)

Vertrel® XF Solvent

Nonflammable, ozone-safe solvent for ultrasonic tanks. Displaces water for drying; removes dust, light oils. Plastic-safe.



Vertrel® XP Displacement Cleaner

Nonflammable, ozone-safe solvent for ultrasonic tanks. Special additives absorb water, break ionic bonds, speeding the removal of water, particulate, dust, oils. Plastic-safe.



Vertrel® MCA Plus Degreaser

Nonflammable, ozone-safe solvent for vapor degreasers and ultrasonic tanks. Very strong cleaning on grease and oils.



Vertrel® SMT Defluxer

Nonflammable, ozone-safe solvent for vapor defluxing surface mount electronics. Very good on R and RMA fluxes.



Vertrel® XMS Plus Defluxer

Nonflammable, ozone-safe solvent for surface mount electronics. Very good on R and RMA fluxes.



PRESATURATED WIPES

For more information on all Micro Care presaturated tub wipes, see Product Spec PS-77

Stencil Wipes

Featuring ProClean™ Solvent

The best-selling tub wipe: powerful, versatile and yet economically priced. Ideal for cleaning rosin and most "no clean" solder paste from precision SMT stencils. Versatile, low aroma, good tack time.

Pleasant, mildly sweet aroma with excellent toxicity ratings. Medium drying. Static-safe. Flammable. Mil-spec approved. Biodegradable, ozone-safe and plastic-safe.

Select these Wipes for general, all-purpose cleaning of stencils and boards.

For more information about ProClean—
See Product Spec PS-45



Economy Wipes

Featuring MultiClean™ Solvent

This low-cost stencil wipe easily lifts away all types of solder paste, particularly OA and "no clean" pastes. However, the product is not a highly active cleaner and is limited to the less complex applications.

Modest aroma, medium- to slow-drying. Very good toxicity ratings. Static-safe. Flammable. Mil-spec approved. Biodegradable, ozone-safe and plastic-safe.

Select MultiClean for simple stencil cleaning applications, or surface cleaning of water-soluble contamination.

For more information about MultiClean—
See Product Spec PS-42



Heavy Duty Wipes

Featuring Axarel® 2200 Solvent

This is the strongest general purpose hydrocarbon cleaner, and it easily wipes away hardened solder pastes, many epoxies and some inks. A highly active solvent, use these Heavy Duty Wipes for the more demanding SMT and BGA stencils.

This cleaner is relatively slow drying, which makes it better for cleaning misprinted boards. Slight musty aroma. No rinsing. Biodegradable.

Select the Heavy Duty Wipes when cleaning a wide variety of contamination and when the speed of drying is not crucial.

For more information about Axarel 2200 —
See Product Spec PS-55



ExPoxy™ Wipes

When you put it on it's an epoxy, but once you hit it with this cleaner it's an "ExPoxy." This wipe is your best choice for removing uncured chip board from mis-printed boards, as well as tidying up spills and drips on machinery. Based on a proprietary and highly activated hydrocarbon chemistry, ExPoxy gives technicians the widest possible process "window" for working with semi-cured chip-bonders. This powerful cleaner is also a great choice for solder pastes and many inks.

Mild, musty aroma. Combustible. Static-safe. Plastic-safe. Ozone-safe. Slow drying for maximum economy.



ScreenClean™ Wipes

A special hydrocarbon blend prepared for the hybrid circuit industry which often screens thick-film pastes. A powerful ink remover, specifically targeted to UV-curable inks. Modest aroma, dries slowly.

A slightly fruity, heavier aroma. Combustible. Static-safe. Plastic-safe. Ozone-safe. Slow drying for maximum economy.



Plastic, Metal and Glass Cleaner Wipes

The strongest general-purpose surface cleaner ever offered by Micro Care. Formulated for cleaning benchtops, cabinets, housings, keyboards, keypads, switches and relays, test equipment, conveyors, hand tools and all the other equipment found in the factory environment. It easily wipes away light grime, oils, fingerprints, pencil marks, pen inks and even coffee stains. This cleaner is completely safe on all metals, paints, ceramics, glass, benchtops and plastics. I

This cleaner contains no detergents. Those sticky, soapy residues never evaporate, and when they get behind keyboards they attract dirt and cause more problems than they solve.

No residues and noncorrosive. No rinsing required. Fast drying when wiped. Nonflammable. Good toxicity ratings. Plastic-safe. Static-safe. Slight ammonia aroma.

- Water-based, nonflammable
- Refillable pump sprayer
- Not for use on static dissipative mats

For more information — Product Spec PS-79



Specifications:

All Micro Care presaturated tubs contain 100 wipes, 8 by 5 inches, loaded with about one pound (454 grams) of solvent. Priced per-tub, packaged twelve (12) tubs per case.

The vacuum-packed wipe refills are packaged 12 bags/box.

All presaturated wipes and the presaturated refills have a one year shelf life.

For details on the specific solvents, see the MSDS sheets and individual product specifications.



Stencil Wipes Stencil Wipe Refills	MCC-PROW MCC-PROWR
Economy Wipes Economy Refills	MCC-MLCW MCC-MLCWR
Heavy Duty Stencil Wipes Heavy Duty Refills	MCC-AXLW MCC-AXLWR
ExPoxy™ Wipes ExPoxy™ Refills	MCC-EPXW MCC-EPXWR
ScreenClean™ Wipes ScreenClean™ Refills	MCC-CDIW MCC-CDIWR
Plastic, Metal and Glass Cleaner Wipes PMG Refills	MCC-PMGW MCC-PMGWR

Complete UniBar Starter Kits

All kits include consists of two UniBar aluminum hubs, two extra plastic take-up cores, two starter rolls and three extra locking springs:

For MPM SPM printers.
Max roll size 17.5 in./44 cm. MCC-UM2
For DEK 265 printers.
Max roll size 17.5 in./44 cm. MCC-UD2
For Quad & SMTech printers.
Max roll size 14 in./35 cm. MCC-UQ2

UniBar Quick Change Kit

All kits include one hub, one spare plastic core, one extra locking spring. Maximum roll size varies.

For MPM SPM printers.
Max roll size 17.5 in./44 cm. MCC-UM1
For DEK 265 printers.
Max roll size 17.5 in./44 cm. MCC-UD1
For Quad & SMTech printers.
Max roll size 14 in./35 cm. MCC-UQ1

UniRolls™ for the UniBar System

All UniBar rolls contain 36 feet/12m of paper.

UniRoll, 18 cm/7.25 in. wide MCC-U075
UniRoll, 22 cm/8.75 in. wide MCC-U087
UniRoll, 28 cm/11.0 in. wide MCC-U110
UniRoll, 35 cm/14.0 in. wide MCC-U140
UniRoll, 44 cm/17.5 in. wide MCC-U175
UniRoll, 58 cm/22.75 in. wide,
fits only MPM UP3000 systems. MCC-U227

Sold by the roll. All stencil rolls and UniRolls are packaged ten rolls per case. Each roll individually wrapped. Unlimited shelf life. Guaranteed to fit!

Micro Care manufactures a wide variety of custom rolls. If you have a different machine or an unusual requirement, call us about our custom services!



▲ The folks who make stencil printers design their rolls for their convenience, not yours, so there are hundreds of different sizes and shapes. Replace them all with the UniBar™ system for better wiping at lower costs.

STENCIL ROLLS

For more information on all Micro Care stencil cleaning rolls, see Product Spec PS-64

Part #	Stencil Printer System	Core Length Inch/mm	Core Inner Diameter Inch/mm	Core Roll Outer Diameter Inch/mm	Roll Width Inch/mm	Roll Length Feet/Meter
104E	DEK	21.25/540	0.787/20	2.5/60	21.25/540	36/11
105C	DEK	20.87/530	0.79/20	2.25/50	20.37/510	30/9.1
105E	DEK	20.87/530	0.79/20	2.25/50	20.37/510	30/9.1
105X	DEK	20.87/530	0.79/20	2.25/50	20.37/510	50/15.2
106E	DEK	17.91/450	0.29/70	2.36/60	17.41/440	36/11
J119E	DEK	20.87/530	0.787/20	2.25/50	15.75/400	30/9.1
J171E	Ekra	13.755/350	0.472/12	1.965/50	13.755/350	12/3.7
J174E	Ekra	19.68/500	0.51/13	1.77/40	19.68/500	20/6.1
J177E	Ekra	16.506/420	0.472/12	1.965/50	16.506/420	12/3.7
J178E	Ekra	17.685/450	0.472/12	1.965/50	17.685/450	12/3.7
J148EA	Fuji	19.69/500	1/25	2.36/60	19.69/500	30/9.1
J189E	Fuji	15.748/400	1/25	2.36/60	15.748/400	30/9.1
101TEA	MPM	18/450	0.75/19	2.5/60	17.5/440	39/11.9
101TX	MPM	18/450	0.75/19	2.5/60	17.5/440	50/15.2
102E	MPM	18/450	1/25	2.5/60	17.5/440	33/10.1
103E	MPM	25.25/640	0.75/19	2.5/60	24.75/620	39/11.9
J122E	MPM	9/220	0.75/19	2.5/60	8/200	39/11.9
J130E	MPM	24/610	0.75/19	2.75/70	24/610	39/11.9
J138E	MPM	18/450	0.75/19	2.5/60	9/220	39/11.9
J206E	MPM	20.67/520	1.5/38	2.5/60	20.276/510	39/11.9
107E	Panasonic	21.25/540	1.5/38	3/70	21.25/540	39/11.9
108E	Panasonic	14.18/360	1.5/38	3/70	14.18/360	39/11.9
J109E	Quad	16.15/410	1.5/38	2.5/60	16.15/410	22/6.7
J139E	Quad	16.15/410	1.5/38	2.5/60	16.15/410	22/6.7
J206E	Quad	20.67/520	1.5/38	2.5/60	20.273/510	39/11.9/

The UniBar System

The UniBar™ System is a drop-in upgrade to the stencil wiping feature found on many modern stencil printers. It boosts throughput by wiping more effectively. Each UniBar design varies to fit each type of machine, but the UniRoll™ wiping rolls remain the same. This means the paper rolls are independent of the type of printer. Wiping is less frequent, throughput increases, the paper rolls last longer, and there is less downtime. The fact that the rolls are less expensive is another plus.

In side-by-side comparisons on a DEK 265 stencil printer, the UniBar System extended roll life 140%, bolstered throughput 37%, reduced wiping frequency by 66%, cut roll costs 53%, minimized paper waste and eliminated expensive duplicate inventories of rolls.

Each UniBar kit varies depending upon the system on which it is to be installed, but in general each consists of everything needed for your printer system. No tools are required for installation or for removal, and the UniBar is as easy to use as a standard roll wipe.

For more information — Product Spec PS-60

Complete UniBar™ Stencil Wiping Systems

Each **UniBar Starter Kit** consists of two UniBar hubs, two extra plastic take-up cores, two starter rolls and three extra locking springs:

- **MPM SPM Systems:** Max roll size 17.5 in./44 cm. Starter rolls: 14 inches.
- **Other MPM Systems:** The UP2000, UP3000, AP21S, AP23S, AP24, AP25S and AP26 systems from MPM do not require a UniBar hub. Just buy the UniBar rolls and start saving! Only the MCC-U227, -U175 and -U140 are recommended on these printing systems.
- **DEK 265 Series.** Max roll size 17.5 in./44 cm. Starter rolls: 17 inches.
- **Quad and SMTech.** Max roll size 14 in./35 cm. Starter rolls: 14 inches.

UniRolls™

Any of these rolls can be used on any of the most popular printers! All rolls are 12 meters/36 feet long and are identified by a unique yellow plastic core. For spare take-up cores, call Micro Care.

FLAT WIPES AND SWABS

For more information – See Brochure BR-89

Flat Wipes

Micro Care Part #	Wipe Size Inch cm	Material	Texture	Particulate (0.5µm/2)	Absorbency (mL/m2)	Packed in Clean Room	ESD Pack'g	Clean Room Pack'd	Sheets Bags/ Case
NON-WOVEN TECHNOLOGIES									
W12	12x16 in 30x40 cm	Polyester Cellulose blend	Waffled	15.4	250	No	No	No	50/5
W11	8.5 x 11 in 21 x 28 cm	Polyester Cellulose blend	Smooth	18	280	No	No	No	100/6
W66	6x6 in 15x15 cm	Polyester Cellulose blend	Smooth	15.4	250	No	No	No	50/25
W99	9x9 in 23x23 cm	Polyester Cellulose blend	Smooth	15.4	250	Yes	Yes	Class 100	300/12
W99CP	9x9 in 23x23 cm	Polyester	Smooth, soft	0.2	332	Yes	Yes	Class 100	300/8
W88	8x8 in 20x20 cm	Composite	Quilted, shiny	120	490	Yes	Yes	Class 100	100/12
W69MA	6x9 in 15x23 cm	Reticulated Foam 100ppi	Coarse	200	730	No	No	No	25/30
POLYESTER TECHNOLOGIES									
W99PP	9x9 in 23x23 cm	Polyester	Smooth, thin, soft	2.4	319	Yes	No	Class 10	150/8
W99HD	9x9 in 23x23 cm	Polyester	Smooth, Thick	2.6	321	Yes	No	Class 10	150/5
W99SE	9x9 in 23x23 cm	Polyester	Smooth, Thick	2.4	478	Yes	No	Class 10	150/5
W99PQS	9x9 in 23x23 cm	Polyester	Quilted	14.6	945	Yes	No	Class 10	100/5
COTTON									
W99TJ	9x9 in 23x23 cm	Cotton	Linen-like	129.5	219	Yes	No	Class 1000	300/12

Swabs

Micro Care Part #	Swab Material	Head Size (W x L) (in.) (mm)	Handle Size (inches) (mm)	Bonding Method	Clean-Room Packaging?	Quantity-Bag/ Case
CLEANROOM SWABS						
WS301	Prelaundered Polyester	1/4 x 3/4 in 6x19 cm	6 in 14 cm	Heat & Pressure	Yes	50/10
WS302	Prelaundered Polyester	1/8 x 1/2 in 4x12 cm	3 in 7 cm	Heat & Pressure	Yes	50/10
WS303	Prelaundered Polyester	1/16 x 1/2 in 2x12 cm	3 in 7 cm	Heat & Pressure	Yes	50/10
ECONOMY SWABS						
WS501	Cotton Q-Tip Style	1/4 x 5/8 in 4x16 cm	6 in 14 cm	Glue	No	1000/10
WS502	Cotton Q-Tip Style	3/16 x 1/2 in 4x12 cm	3 in 7 cm	Glue	No	1000/10
SYNTHETIC SWABS						
WS201	Non-reticulated Foam	5/8 x 1 in 16x25 cm	5.25 in 13 cm	Heat w/ Hot Melt	No	50/10
WS202	Reticulated Foam	1/2 x 1 in 12x25 cm	5 in 12 cm	Heat w/ Hot Melt	No	50/10
WS203	Non-reticulated Foam	1/8 x 1/2 in 4x12 cm	4 in 9 cm	Epoxy	No	50/10
WS204	Non-reticulated Foam	1/4 x 3/4 in 6x19 cm	4.5 in 11 cm	Epoxy	No	50/10
WS205	Foam & Cotton	3/16 x 1/2 in 4x12 cm	3 in 7 cm	Heat w/ Hot Melt	Yes	50/10
WS206	Foam & Cotton	3/8 x 1 in 10x25 cm	6 in 14 cm	Heat w/ Hot Melt	Yes	50/10
ESD SWABS						
WS101	Reticulated Foam	3/4 x 7/8 in 19x22 cm	6 in 14 cm	Heat & Pressure	No	100/5
WS104	Reticulated Foam	1/8 x 3/4 in 4x19 cm	3.25 in 11 cm	Heat & Pressure	No	500/1



▲ Micro Care's flat wipes are rugged, non-woven paper that easily absorbs excess solvent, fluxes, solder paste, grease and oils. Almost impossible to tear. Never leaves lint, even on through-hole boards. ESD-safe when wet.

Swabs



We're Giving Away Our Single Most Important Product – Absolutely Free!



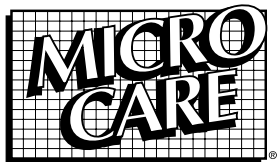
The most important product we offer at Micro Care is our expertise. We've been to thousands of factories. In dozens of countries. With every type of production arrangement you can imagine. We've helped them all, and now we've compiled that knowledge into the industry's most useful web site.

The Micro Care web site is a potent example of how we lead the industry. Look for:

- Technical articles and case histories
- Product specifications for every cleaner and package
- MSDS sheets in up to eleven languages
- A proprietary "Solvent Selection Guide" which determines the best solvent for your application
- And, most usefully, a Cost Calculator which helps you determine your true benchtop cleaning costs.

The web site is easy to navigate, jargon-free and fun to use. Just like the rest of Micro Care, our web site works a little bit harder to get you the answers you need at a price you can afford.

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