



Dusters

Techspray dusters blow away dust, microscopic contaminants, lint, metallic oxide deposits and other soils that can cause heat build-up or shorts in sensitive electronics. They are completely portable, ultra-pure, and free of moisture, oil, and other contaminants.

- Moisture free
- Non-ozone depleting
- Zero residue
- VOC exempt
- Safe on plastics

Nonflammable Duster

Nonflammable, 100% HFC-134a duster

1671-10S 10 oz. (283g) aerosol **1671-15S** 15 oz. (425g) aerosol

CAN1671-10S 10 oz. (283g) aerosol

Canada compliant packaging

CAN1671-15S 15 oz. (425g) aerosol

Canada compliant packaging





1671-10S 1671-15S



- Safest choice for energized equipment
- Velocity 11.3 M/s

Vortex[™] High Velocity Duster High velocity, 100% HFC-134a duster

- Most powerful blast
- Nonflammable
- Safest choice for energized equipment
- Vortex 360° sprays upside-down
- Velocity -14.6 m/s

1697-85 Vortex 360° 8 oz. (227g) aerosol

1697-10S 10 oz. (283g) aerosol





1697-85

Economy Duster

Economical HFC-152a duster

- Best value 30% more volume
- Lower global warming potential 10% of HFC-134a

TECHSPRAY

• Velocity – 11.4 m/s

1673-10S 10 oz. (283g) aerosol

Note: not for use on powered electrical equipment, on hot surfaces, and around open flames or sparks.



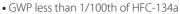
1673-105



Renew-Duster

1580-10S 10 oz. (283g) aerosol





- Nonflammable
- Non-ozone depleting
- Velocity 12 m/s

DUSTER SELECTION C	GUIDE					
	Spray Power	Nonflammable	360° Spray	Contents	GWP*	Use On Live Circuits
1697-10S Vortex Duster	Best	Yes	No	HFC-134a	1300	Yes
1697-8S Vortex 360° Duster	Best	Yes	Yes	HFC-134a	1300	Yes
1671 Duster	Good	Yes	No	HFC-134a	1300	Yes
1673 Economy Duster	Good	No	No	HFC-152a	140	No
1580 Renew-Duster	Good	Yes	No	HFO-1234ze	6	Yes

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

Isopropyl Alcohol (IPA)

Techspray has the broadest line of isopropyl alcohol (IPA) in the industry, ranging from aerosol, pre-saturated wipes, and bulk packaging. Two grades of IPA are available: 99.8% anhydrous (containing as little water as possible) for fast-drying cleaning and 70% IPA / 30% DI for stencil and other cleaning when slower evaporation is desired.

70% Bulk - Cleaning Grade IPA

1608-G4 1 gal. (3.8L) container

99.8% Bulk - Technical Grade IPA

1610-P 1 pt. (473mL) bottle 1610-PT 1 pt. (473mL) bottle

> w/trigger sprayer 1 gal. (3.8L) bottle

1610-G4 1 gal. (3.8L) bottle sold only 4/cs

1610-5G 5 gal. (19L) container **1610-54G** 54 gal. (205L) drum

Specs: 99.8% IPA qualified as ACS reagent grade, fed spec TT-1-735A (amend 3, notice 2) grades A&B, ASTM D770-05







TEGHSPRAY

1610-PT 1610-P

Pop-up Tubs

- 5"x8" (127mm x 203mm) wipes
- 100 wipes/tub

1610-G1

• Lint-free , tear resistant polyester

70% IPA Wipes

1608-100DSP 100 wipes in Disposable Tub 1608-100FL 100 wipes in Flip-Top Tub 1608-100R 100 wipes refill roll

99.8% IPA Wipes

1610-100DSP 100 wipes in Disposable Tub 1610-100FL 100 wipes in Flip-Top Tub 1610-100R 100 wipes refill roll





Spring-loaded lid

automatically

closes



E-Line IPA Electronics Cleaner

99.8% IPA in convenient aerosol package

- 99.8% pure IPA
- Compliant with SCAOMD rule 1171
- Plastic safe
- · Low toxicity
- Non-ozone depleting

1610-12S 12 oz. (340g) aerosol

Specifications for 99.8% IPA: Fed spec TT-1-735A (amend 3, notice 2) grades A&B, ASTM D770-05



- 5.5"x5.5" (140mm x 140mm) wipes
- 50 wipes/box
- Lint-free , tear resistant poly-cellulose







Refill Roll

Precision, Safety, Performance . . . Advanced Chemistries to Improve Your Products & Processes.

Techspray® offers cutting-edge technologies to improve your processes. Several formulas are available for applications ranging from electronics cleaning to heavy-duty industrial cleaning.



POWERFUL, NONFLAMMABLE & COST EFFECTIVE CLEANER

- Ideal replacement for n-propyl bromide (nPB) and other toxic industrial solvents
- · Available in aerosol or bulk for vapor degreasing, ultrasonic and soak applications
- PWR-4™ Maintenance Cleaner for heavy-duty degreasing and contact cleaning, PWR-4™ Flux Remover for PCB cleaning



NONFLAMMABLE & POWERFUL CLEANER

- Top-selling solvent that's effective on the broadest array of soils
- Available in aerosol or bulk for ultrasonic and soak applications



NONFLAMMABLE, POWERFUL & HIGH PRECISION CLEANER



- Replacement for AK225, which was banned because of environmental issues
- Ideal for aviation, aerospace, medical and military applications
- Available in aerosol or bulk for vapor degreasing, ultrasonic and soak applications



ECONOMICAL & POWERFUL CLEANER, BUT FLAMMABLE

- Effective cleaner, yet safe on sensitive plastics
- Available in aerosol or bulk for ultrasonic and soak applications



HIGH PERFORMANCE ECO-FRIENDLY CLEANERS

- Water-based flux removers with zero GWP and low VOC
- Engineered for batch and inline equipment







SAFER REPLACEMENTS FOR TOXIC INDUSTRIAL SOLVENTS

n-Propyl Bromide (nPB), Trichloroethylene (TCE), and Perchloroethylene (Perc) are three examples of harmful chemicals that are commonly used in aerosol cleaners in industrial applications. These chemicals are commonly used as cleaning solvents because they are nonflammable, have high solvency, and are relatively inexpensive.

Because of safety concerns, these solvents are under close scrutiny by OSHA, EPA, and local agencies. For example, The American Conference of Governmental Industrial Hygienists (ACGIH) recommends a 10 ppm time-weighted average threshold limit of nPB, but has proposed a lower 0.1 ppm (ACGIH 2013). That's because nPB is a suspected human carcinogen, and has shown to negatively impact neurological and reproductive functioning.

Techspray offers effective replacements for these toxic solvents. PWR-4® High Performance Solvents provides all the cleaning power of nPB and other industrial solvents, but without the health risks.

For more information, read "Toxic Chemicals Used for Industrial Cleaning" white paper at www.techspray.com





Degreasers / **Contact Cleaners**



Maintenance Cleaner

Blasts away oil and contaminants off of contacts, printed circuit boards, barcode instruments, switch boxes, gear boxes, and electronic motor controllers. Grease and oil flow right off, reducing the time and materials needed to scrub off stubborn soils.

- Nonflammable
- Much safer than most common industrial solvents TCE, nPB, Perc & Methylene Chloride
- Powerful cleaner Ideal for degreasing and contact
- Available in aerosol or bulk for vapor degreasing, ultrasonic and immersion cleaning
- Rapid evaporation
- Non-ozone depleting
- Cleaning applications: electronics, relays, switches & breakers, transformers, and electric motors and generators

3400-205 20 oz. (567g) aerosol 3400-G 1 gal. (3.8L) pail 3400-5G 5 gal. (18.9L) pail **3400-54G** 54 gal. (204L) drum



MAINTENANCE CLEANER SELECTION GUIDE

2857-205 PURA Median Dagreson TO DE LIME MAINTERANCE CLOSICE Tod. To Main noneser 1657 President Plant She 1622 E.M. Contra Conner Maintenance cleaners clean oil and 1835 GA HOLOWITH CRANGE Posess Universal Solvent 1632 GONNAT CRAIRE contaminants off of metal parts, printed circuit boards, barcode instruments, 1657 Pecision-V switch boxes, gear boxes, and engines. PROPERTIES Nonflammable Evaporation rate (1=slow, 5=fast) 5 4 5 5 4 4 4 VOC% (EPA) - Aerosol 75 64 65 12.6 75 75 64 69 37 75 VOC% (EPA) - Bulk 61 49 18 100 100 VOC% (CARB) - Aerosol 75 75 75 75 75 69 VOC% (CARB) - Bulk 100 100 100 100 100 APPLICATIONS Benchtop cleaning Ultrasonic 8 * Vapor degreasing

NOTE: Test for substrate compatibility as a part of your qualification process.

^{*} Non-heated ultrasonic only



Blue Shower Maintenance Cleaner

Nonflammable, powerful cleaner

Clean oil and contaminants off of metal parts, printed circuit boards, barcode instruments, switch boxes, gear relays, and electronic motor controllers.

1630-16S 16 oz. (454g) aerosol



- Nonflammable
- Powerful cleaner
- Rapid evaporation
- Non-ozone depleting
- Dielectric strength 27.3 kv

Compliant with Boeing D6 17487, Rev T



Industrial Maintenance Cleaner

High power, fast evaporating maintenance cleaner

Blast away heavy oils and greases off of metal parts, gear boxes, and engines.

1635-20S 20 oz. (567g) aerosol



- All-in-one electronic maintenance & contact cleaner
- Rapid evaporation
- Non-ozone depleting
- Low toxicity compared to TCE, nPB & Perc
- Dielectric strength 30.5 kv



Universal Cleaner

Nonflammable, powerful liquid cleaner

Engineered to remove oils, fluxes and other contamination using a manual soak cleaning process or ultrasonic equipment.

1638-G1 gal. (3.8L) pail1638-5G5 gal (19L) pail1638-54G54 gal. (205L) drum



- Nonflammable
- Powerful cleaner
- Effective as maintenance cleaner and flux remover
- Rapid evaporation
- Non-ozone depleting
- Dielectric strength 27.3 kv



Contact Cleaner

Nonflammable, powerful contact cleaner

Clean oxidation, oil, and other contaminants from contacts, metal switches, relays, edge connectors, buss bars, and circuit breakers.

1632-16S 16 oz. (454g) aerosol



- Nonflammable
- Powerful cleaner
- Rapid evaporation
- Non-ozone depleting
- Dielectric strength 36.2 kv

Compliant with Boeing D6 17487, Rev T $\,$



Flux Remover & Maintenance Cleaner

Nonflammable and powerful precision cleaner

Clean off flux residues, oil, and other contamination from electronics and other sensitive surfaces.

 1651-16S
 16 oz. (454g) aerosol

 1651-G
 1 gal. (3.8L) pail

 1651-5G
 5 gal. (19L) pail

 1651-54G
 54 gal. (205L) drum



- Nonflammable
- Low VOC
- Safe on most plastics
- High precision residue-free
- Rapid evaporation
- Non-ozone depleting



PRECISION

Plastic-Safe Universal Cleaner

Plastic-safe, nonflammable cleaner for sensitive electronics

Engineered for use on sensitive plastic electronic components, packaging and casements.

1652-10S 10 oz. (284g) aerosol **1652-G** 1 gal. (3.8L) pail

Specifications: NESHAP 63.741-753



- Nonflammable
- Low VOC
- Safe on sensitive plastics
- High precision residue-free
- Rapid evaporation
- Non-ozone depleting
- Dielectric strength 23 kv

Specialized Degreasers for Aviation and Aircraft Parts

These specially engineered aviation degreasers quickly remove hydraulic fluid, fuel oils, lubricating oils and greases, and other organic residues. They are fast evaporating, quick penetrating, and ideal for cleaning aviation parts. Both are free of hazardous

air pollutants (HAPs), and CARB compliant.





Aviation Degreaser

Exceptional nonflammable cleaner for aircraft parts degreasing

2851-20S 20 oz (567g) aerosol

Specifications: Meets Airbus UK ABR9-0140 General Purpose Cleaning Solvent, FedEx CPN 0311737, Boeing D6 17487, Rev T



- Nonflammable
- Fast evaporation
- Zero residue
- Non-ozone depleting
- Does not contain n-propyl bromide
- Dielectric breakdown of 13.7 kV
- CARB compliant

Aviation Degreaser II

NESHAP compliant cleaner for removing hydraulic and lubricating fluids

1647-16S 16 oz. (454g) aerosol

Specifications: Meets Boeing D6 17487, Rev T, NESHAP 63.741-753



- Nonflammable
- $\bullet \ \mathsf{Low} \ \mathsf{VOC} \ \mathsf{/} \ \mathsf{NESHAP} \ \mathsf{compliant}$
- Fast evaporation
- Zero residue
- Non-ozone depleting
- Does not contain n-propyl bromide
- Dielectric breakdown of 11.9 kV
- CARB compliant

More Choices for Aviation Cleaning:

Compliant with Boeing D6 17487, Rev T:

G3 Blue Shower Maintenance Cleaner (1630-16S)

G3 Blue Shower Contact Cleaner (1632-16S)



Blue Shower Maintenance Cleaner

Powerful and economical aerosol cleaner

Clean oil and contaminants off of metal parts, printed circuit boards, barcode instruments, switch boxes, gear boxes, and engines.

1620-10S 10 oz. (284g) aerosol



- Powerful cleaner
- Ideal for sensitive plastics
- Low toxicity
- Non-ozone depleting



Flux Remover & Maintenance Cleaner

Powerful and economical liquid cleaner

Engineered to remove oils, fluxes and other contamination using soak cleaning process or ultrasonic equipment.

1 gal. (3.8L) pail 1621-G 1621-5G 5 gal (18.9L) pail 54 gal. (204L) drum 1621-54G



- Effective as maintenance cleaner and flux
- Ideal for sensitive plastics
- For cold cleaning and ultrasonic (unheated only)
- Non-ozone depleting



Contact Cleaner

Powerful and economical electronic contact cleaner

Clean oxidation, oil, and other contaminants from contacts, metal switches, relays, edge connectors, buss bars, and circuit breakers.

1622-10S 10 oz. (284g) aerosol 1622-135 13 oz. (369g) aerosol





@ W

1622-135

- Powerful cleaner
- Ideal for sensitive plastics
- Low toxicity
- Non-ozone depleting



IPA Electronics Cleaner

99.8% IPA in convenient aerosol package

Ideal for defluxing, stencil cleaning and fiber optic connector cleaning.

1610-12S 12 oz. (340g) aerosol

Specifications for 99.8% IPA: Fed spec TT-1-735A (amend 3, notice 2) grades A&B, ASTM D770-05



- 99.8% pure IPA
- Compliant with SCAQMD rule 1171
- Plastic safe
- Low toxicity
- Non-ozone depleting



Zero-VOC General Purpose Cleaner

General purpose remover of adhesives and coatings

Ideal for heavy-duty degreasing and for removing paint, coatings and sticky adhesive residues. Because it is VOC-free, there are no VOC restrictions – even in southern California!

1611-P 1 pt. (473mL) can



- Pure acetone
- Ideal for removing inks & adhesives
- VOC exempt
- Low toxicity
- Fast evaporation
- Non-ozone depleting

Note: test first on plastics and painted surfaces to check for compatibility.



Eco-Shine™ Glass & Surface Cleaner

Eco-friendly, nonflammable, streak-free glass cleaner

Cleans glass, stainless steel, chrome, mirrors, tile, plastic, ceramic and enamel and leaves a streak-free finish.

1505-QT 1 qt. (0.95L) w/ trigger sprayer

1505-G 1 gal. (3.8L) jug



- Streak-free
- Nonflammable
- Non-ammoniated safe on sensitive surfaces
- Low VOC, no GWP
- Non-ozone depleting

Glass Cleaner

Foaming aerosol glass and surface cleaner

1625-18S 18 oz. (510g) aerosol



- Foaming action
- Streak-free
- Safe on glass & plastics
- Nonflammable

Specifications: GM H1018, Ford Tox #142432

Roller Rejuvenator & Platen Cleaner

Rubber roller cleaner and rejuvenator

Citrus-based solvent designed to clean and revitalize rubber rollers and platens. Improves rubber roller grip and reduces misfeeds and jams.

1612-2SQ 2 oz. (59ml) bottle



- Improves roller grip
- Natural citrus-based solvent
- Safe on most plastics

Specifications: Ford Tox #142415

Note: Not available in California

Label & Adhesive Remover

Fast acting, citrus-based label and adhesive remover

Citrus-based solvent safely and effectively removes labels and adhesive gums off equipment and products. Penetrates quickly and allows label to be peeled off without gummy residue.

1613-6S 4.5 oz. (128g) aerosol



- Removes labels and adhesive without scraping
- Penetrates rapidly
- Citrus-based solvent
- Safe on most plastics

Note: Not available in California

Adhesives

Low soak-in adhesive exhibits particular strength when bonding surfaces such as dry wall, brick and concrete block. Heavy Duty Adhesive will also work on surfaces such as paper, plastic, foam, wood and other fabrics. Excellent for both temporary and permanent bonds.

Heavy-Duty Adhesive

3500-11S 12 oz. (340g) aerosol

Economy Adhesive

3505-11S 12 oz. (340g) aerosol

Contact Adhesive

3510-12S 12 oz. (340g) aerosol



3505-115

- High strength
- Fast tacking
- Water resistant
- Non-wrinkling



Flux Removers

Flux removers (defluxers) remove flux residues and other contaminants left by manufacture, rework, or repair of printed circuit boards. Residues from higher, lead-free temperatures are more baked on and harder to clean. PWR-4[™], G3[®], E-LINE[™] and Precision-V[™] flux removers have been proven very effective at removing fluxes baked on at lead-free temperatures.

Micro-components and fine pitch leads are delicate and easily damaged, so brushing and scrubbing should be avoided if possible. Both G3, E-LINE™ and Precision-V have a powerful spray and strong solvent that blasts off residues and cleans areas under components that a brush cannot touch.

Techspray offers traditional solvent-based cleaners and cutting edge water-based technologies marketed under the Techspray Renew[™] brand.



TECHSPRAY RENEW™ branded cleaners are innovative solutions that combine the best of current "green" technologies to make the most powerful eco-friendly cleaners on the market.



• Help create bright, shiny solder joints

- Improve PCB reliability
- Prevent conformal coating defects
- Prevent corrosion from contamination
- RoHS compliant

FLUX REMOVER SELECTION GUIDE

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		14 Per		an Film		· / _	No.	7/1/201		*/@*/	W. 200	: / W.S.
		A TA	/ ## /	/ 3° /) } } }	sión/	ision /	10,55		WE FIL		
	40701	1637 C. MRATHURPER	1634 C. HAY REMOVE.	1638 C. Clan Him.	1657 p. Went	1649p.	1652 Mac	1670 F. (Cosion-V.Place)	1627E	1550 E MURREM	1520 E Wer SM.	1530 Fa. S. M. 200
PROPERTIES												
Nonflammable	•	•		•		•				•		
Evaporation rate (1=slow, 5=fast)	5	5	5	5	5	5	5	3	4	1	1	1
VOC% (EPA) – Aerosol	73	64	64	-	37	64	13	75	75	-	-	_
VOC% (EPA) – Bulk	95	-	-	61	49	-	18	100	-	45	22	52
VOC% (CARB) – Aerosol	70	75	75	-	75	75	75	75	75	-	-	-
VOC% (CARB) – Bulk	100	-	-	100	100	-	100	100	-	45	52	22
APPLICATIONS												
Benchtop cleaning		•		•		•						
Ultrasonic	•			•			8	*	•	•	•	•
Vapor degreasing	•				•							
Inline defluxing system										•	•	
Batch defluxing system										•	•	

NOTE: Test for substrate compatibility as a part of your qualification process.

* Non-heated ultrasonic only + Rinse required

Solvent Defluxers



Flux Remover

Powerful, nonflammable and cost effective cleaner

Cleans away flux residues and other contaminants in vapor cleaning and ultrasonic application. Easily removes residues from high temperature lead free soldering operations, no-clean fluxes and all handling soils.

3401-G 1 gal. (3.8L) pail **3401-5G** 5 gal. (18.9L) pail **3401-54G** 54 gal. (204L) drum



• Nonflammable

- Much safer than most common industrial solvents — TCE, nPB, Perc & Methylene Chloride
- Powerful cleaner Effective on R, RMA & no-clean fluxes
- Available in bulk for vapor degreasing, ultrasonic and immersion cleaning
- Rapid evaporation
- Non-ozone depleting



Flux Remover

Strong and fast-acting flux remover

Remove flux residues and other contaminants left by manufacture, rework, or repair of printed circuit boards.

1631-5S 5 oz. (142g) aerosol w/brush attachment

1631-16S 16 oz. (454g) aerosol

1631-16SB 16 oz. (454g) aerosol w/brush attachment





- NonflammablePowerful cleaner
- Proven effective for lead-free processes
- All-in-one cleaner and defluxer
- Rapid evaporation
- Non-ozone depleting



No-Clean Flux Remover

Strong and fast-acting no-clean flux remover

Remove no-clean flux and white residues left by manufacture, rework, or repair of printed circuit boards.

1634-12S 12 oz. (340g) aerosol



1631-16SB



- Ideal for no-clean fluxes
- Proven effective for lead-free processes
- Rapid evaporation
- Non-ozone depleting



Universal Cleaner

Nonflammable, powerful liquid cleaner

Engineered to remove oils, fluxes and other contamination from electronics using a manual soak cleaning process or ultrasonic equipment.

 1638-G
 1 gal. (3.8L) pail

 1638-5G
 5 gal (19L) pail

 1638-54G
 54 gal. (205L) drum



• Nonflammable

- Powerful cleaner
- Effective as maintenance cleaner and flux remover
- Rapid evaporation
- Non-ozone depleting
- Dielectric strength 27.3 kv



PRECISION

No-Clean Flux Remover

Nonflammable and powerful cleaner for the toughest flux residues

Engineered to cut flux residues from the most difficult-to-clean processes. Removes lead-free and no-clean residues, and white residues left by manufacturing, rework, or repair of circuit boards.

1649-12S 12 oz. (340g) aerosol



- Effective on R, RMA, no-clean and OA fluxes
- Nonflammable
- Non-ozone depleting
- Rapid evaporation with no residue
- Safe on most plastics

PRECISION

Flux Remover & Maintenance Cleaner

Nonflammable and powerful precision cleaner

Formulated to reduce VOCs within your facility. Ideal for aviation and other applications where strict VOC caps apply (based on EPA VOC exemptions). Bulk chemicals ideal for soak cleaning and ultrasonics (not intended for vapor degreaser).

1651-16S16 oz. (454g) aerosol1651-G1 gal. (3.8L) pail1651-5G5 gal. (19L) pail



1651-16S

Nonflammable

- Low VOC
- High precision residue-free
- Rapid evaporation
- Non-ozone depleting
- Safe on most plastics



Plastic-Safe Universal Cleaner

Plastic-safe, nonflammable cleaner for sensitive electronics

Plastic-safe formula is engineered for use on sensitive plastic components, packaging and casements. Ideal for optics cleaning, critical electronics and other sensitive surfaces. Qualifies under the aerospace NESHAP VOC guidelines.

1652-10S 10 oz. (283g) aerosol **1652-G** 1 gal. (3.8L) pail



Nonflammable

- Low VOC
- Safe on sensitive plastics
- High precision residue-free
- Rapid evaporation
- Non-ozone depleting

Specifications: NESHAP 63.741-753



Flux Remover & Maintenance Cleaner

Powerful and economical flux remover

Hydrocarbon-based defluxer formulated to be powerful, yet very economical. Eliminates brushing and scrubbing, saving time and materials.

1621-10S 10 oz. (283g) aerosol

1621-10SB 10 oz. (283g) aerosol w/brush attachment

 1621-G
 1 gal. (3.8L) can

 1621-5G
 5 gal (19L) pail

 1621-54G
 54 gal (205L) drum



1621-10SB

- Powerful cleaner
- Proven effective for leadfree processes
- Ideal for sensitive plastics

Specifications: GM H1013; USDA Accepted; Ford Tox #142431, USDA: Approved K-2 rated aerosol and bulk.

Envi-Ro-Tech™ Defluxer

Alcohol-based flux remover and maintenance cleaner

Alcohol-based general duty defluxer and all-purpose cleaner for light oils, silicones, handling soils and other contaminants found in electronics manufacturing.

1679-PT 1 pt. (473mL) bottle w/trigger sprayer



- Convenient and easy-to-use trigger sprayer
- Safe on plastics
- Ideal for removing handling soils







Vapor Degreaser Solvents

Techspray offers a wide variety of vapor degreaser formulas engineered to meet challenging requirements like cleanliness specifications, difficult-to-clean soils, solvent-sensitive materials, and restrictive regulations.

All Techspray solvents have azeotropic properties that allow them to remain stable as they are cycled in a vapor degreaser. They are not reactive or corrosive to metals commonly found in the construction of vapor degreasers.

PWR-R™ solvents are designed to replace nPB, TCE and Perc, matching and surpassing cleaning performance without the safety concerns.

Precision-V[™] vapor degreaser solvents are ideal replacements for AK-225 based cleaners, which were phased out due to the ozone depletion restrictions of the Montreal Protocol.

To order, add the following to the part # shown in the chart below:

- -1G for 1 gal. (3.8L)
- -5G for 5 gal. (19L)
- -54G for 54 gal. (205L)



Part #	Product Name	Base Solvents	kB value	Boiling Point (°F/°C)	VOC (g/l)	GWP	Degreasing	Defluxing	Plastic- Safe
1654	VC-1200	DuPont Vertrel® XF	56	94/34	552	684			
1655	VC-1500	DuPont Vertrel® XF	62	90/32	562	663		•	
1656	VC-1600	DuPont Vertrel® XF	100	106/41	1063	264			
1686	ME-1500	3M Novec 7100/7200	58	104/40	889	43			
1680	AE-1000	Asahi AE3000	~0	133/56	ND	540			
1681	AE-1400	Asahi AE3000	ND	139/54	ND	540			
3400	PWR4 Maintenance Cleaner	3M Novec 7100	100	118/48	1201	ND			
3401	PWR4 Flux Remover	3M Novec 7100	100	118/48	1201	ND			

ND=Not Defined



Water-Based Defluxers

Eco-dFluxer

Water-based Inline & Batch Flux Removers

Eco-dFLuxer cleaners are water-based, environmentally friendly and designed to work in both inline and batch cleaning equipment. They are optimal combinations of solvents and saponifiers that lower surface tension for penetration under low stand-offs, and powerful cleaning action to remove all flux residues.

Effective on a wide variety of solders and fluxes: lead, lead-free, aqueous, RMA, no-clean, and new halide-free fluxes. High compatibility with common PCB metals and plastics. Eco-dFluxer cleaners are highly filterable with long bath life.

High performance cleaning gives you brilliant solder joints and allows you to increase dilution, increase line speeds, reduce waste water, decrease cost per board, and most importantly... eliminate field failures due to ionic contamination!

- High performance cleaning
- Nonflammable
- Low VOC, zero GWP
- · Also used for pallet cleaning in batch systems

Eco-dFluxer SMT100

Powerful defluxer, allowing you to optimize your cleaning process. Reduce concentration and increase line speed to maximize your profit. Effective on no-clean, R, RMA and OA fluxes.

 1550-G
 1 gal. (3.8L) bottle

 1550-5G
 5 gal. (19L) container

 1550-54G
 54 gal. (205L) drum

Eco-dFluxer SMT200

Superior metals compatibility, preventing oxidation and leaving shiny solder joints. Eco-friendly formula reduces shipping and disposal costs. Effective with reduced concentration even on the toughest noclean, R, RMA, OA and new halide-free fluxes.

 1520-G
 1 gal. (3.8L) bottle

 1520-5G
 5 gal. (19L) container

 1520-54G
 54 gal. (205L) drum



Eco-dFluxer SMT300

Powerful defluxer but safe on sensitive metals, preventing oxidation and leaving shiny solder joints. Safe, eco-friendly formula. Effective on no-clean, R, RMA, OA fluxes and new halide-free fluxes.

 1530-G
 1 gal. (3.8L) bottle

 1530-5G
 5 gal. (19L) container

 1530-54G
 54 gal. (205L) drum

Defoamer DF1

Defoaming Agent for Inline & Batch Cleaners

Reduce foaming as cleaner becomes loaded to extend bath life. Add directly to sump at 1 to 4 fl oz. (30-120ml) per 100 gallons (379L). Dilute in spray bottle to 15% with DI water to eliminate foaming issue on the spot.

- Effective at all processing temperatures
- Extends bath life
- Silicone & particulate free
- Nonflammable

1555-P 1 pt. (473mL) container



HIGH PERFORMANCE ECO-FRIENDLY CLEANERS

Stencil Cleaners

Eco-Stencil UM

Manual & Under Stencil Cleaner

- Quickly clean paste or uncured adhesive
- Safe for stencils, tools, misprinted boards
- Nonflammable
- Low VOC, zero GWP

Applications:

- Manual stencil tool, work surface, and squeegee cleaning
- Automatic underside wipe stencil cleaning
- Batch ultrasonic cleaning
- Removes unsoldered leaded & lead-free solder pastes
- Cleans off uncured adhesives

1570-100DSP 100 count pre-saturated wipes, 6"x8" (15cm x 20cm)

1570-QT 1qt. (0.95L) w/ trigger sprayer

1570-G 1 gal. (3.8L) bottle

1570-GX10 1 gal. (3.8L) concentrate makes 10 gallons (38L)



Eco-Stencil AQ

Water-Based Batch Stencil Cleaner

1572-G 1 gal. (3.8L) bottle **1572-5G** 5 gal. (19L) container **1572-54G** 54 gal. (205L) drum



1572-G

- For use in batch stencil cleaners with automatic or manual rinse
- Nonflammable
- Low VOC, zero GWP
- Highly concentrated 10% dilution

Eco-Stencil RF

Rinse-Free Batch Stencil Cleaner

 1571-G
 1 gal. (3.8L) bottle

 1571-5G
 5 gal. (19L) container

 1571-54G
 54 gal. (205L) drum



1571-G

- Nonflammable
- Rinse-free
- Drop in replacement for IPA
- Effective at ambient temperature
- Low VOC, zero GWP
- Highly concentrated 20% dilution

Reflow Oven Maintenance

Eco-Oven

Reflow Oven, Wave Finger & Pallet Cleaner

- Quickly clean flux residue from oven & wave fingers
- Safe on warm ovens
- Nonflammable
- Low VOC, zero GWP

Applications:

- Removal of baked-on flux residues from SMT oven and wave equipment
- Maintenance cleaning for heat exchange systems (NOTE: rinse thoroughly from aluminum and copper)
- Finger cleaning in wave solder equipment
- Remove accumulated flux from wave solder pallets

1573-QT 1 qt. (0.95L) w/ trigger sprayer

1573-G 1 gal. (3.8L) bottle **1573-5G** 5 gal. (19L) container





Wave fingers

XT-Armor™ Oven Shield

Reflow Oven & Wave Maintenance Coating

XT-Armor™ Oven Shield Reflow Oven & Wave Maintenance Coating is a water-based, environmentally friendly coating that is designed to protect PCB assembly equipment from flux residues. Flux sticks to the coating surface and then peels off – drastically reducing maintenance time.

XT-Armor Oven Shield has been tested and proven compatible with all of the most popular oven and wave equipment: BTU, Heller, JTU, SMT, Speedline and Vitronics-Soltec.

- Coating & flux residues peel off easily
- Cures during equipment heat-up cycle
- Low odor, non-hazardous, nonflammable
- Easy wash-up with water
- Environmentally friendly zero VOC, zero GWP
- Halide-free prevent ionic contamination

Applications:

- \bullet Protect cooling zones of reflow oven
- Coat around wave fluxer
- Coat top of wave pallet
- Mask overspray area in coating spray booth



3601-16SQ 3601-G

16 fl. oz. (473mL) squeeze bottle 1 gal (3.8L) bottle



PROBLEM: Cleaning requires over 8 hours of machine downtime and man hours, with harsh chemicals, brushes and scrapers.



SOLUTION: Flux contamination simply peels off, reducing downtime by 25% and labor by 50%.







LICRONCRYSTAL

Permanent ESD Coating

- Rugged static dissipative coating
- Surface resistivity of 10⁶ To 10⁹ ohms
- Operating temperature range up to 302°F (155°C)
- Humidity independent
- Superior adhesion to variety of surfaces: glass, plastic, etc.
- Non-ozone depleting

1756-8S 8 oz. (226g) aerosol (coats up to 200ft²)

1756-G 1 gal. (3.8L) jug



1756-85



Zero Charge Anti-Stat Coating

Anti-static coating for fabrics & flexible surfaces

- All-purpose static control
- For plastics, fabrics, and carpet
- Fast drying
- Nonflammable

1726-QT 1 qt. (.95L) bottle with trigger sprayer



Zero Charge Mat & Tabletop Cleaner

Safe, effective cleaner for ESD mats

- Rejuvenates ESD-safe mats
- Will not dry out surfaces
- Leaves no insulative film
- Nonflammable
- No ammonia
- Non-corrosive

1733-QT 1 qt. (.95L) bottle with trigger sprayer

1733-G 1 gal. (3.8L) bottle



Zero Charge® ESD-Safe Floor Coating

ESD-safe floor coating

- Resistivity between 10⁶ To 10¹⁰
- Effective in low humidity
- High gloss polymer
- Zinc free
- Slip resistant

1720-G 1 gal. (3.8L) bottle (coats @1,200 ft²) 1720-5G 5 gal. (19L) pail (coats @6,000 ft²)



1720-G

Zero Charge Hand Lotion

Non-contaminating hand lotion for ESD sensitive environments

- Improves wrist and heel strap contact
- Does not contain silicone or lanolin
- Non-contaminating does not interfere with soldering
- Non-greasy

1702-8FP 8 fl. oz. (237ml) bottle with finger pump

1702-G 1 gal. (3.8L) bottle



Zero Charge Screen & Keyboard Cleaner

Cleans surfaces and leaves behind dissipative residue

1743-50PK 1743-QT

50 pre-saturated wipes in packets 1 qt. (.95L) bottle

w/trigger sprayer



1743-50PK



1743-OT

- Cleans plastic & glass
- Leaves ESD-safe coating
- Leaves no insulative film
- Nonflammable
- Non-corrosive



Conformal Coatings

Techspray offers a variety of coating formulas to match field and engineering requirements. Specifications generally depend on the type of protection needed: e.g. thermal, moisture, and static resistance (see reference chart).

Application method considerations:

Dip - High volume method to fully coat boards. Thickness of final coating is controlled by viscosity and withdrawal speed from the pot.

Selective spray system – Computer controlled selective spray systems, eliminate the need for masking. Higher viscosity than full coverage sprayer is generally needed (70-200 cps) to create precise edge definition and prevent splattering.

Manual Application – Aerosol and brushing are generally used for small production runs, rework and repair. If using for rework, the aerosol needs to be compatible with the original coating.







2102-125

- UL recognized
- Thermal resistance to 392°F (200°C)
- Dielectric strength 1100 volts/mil
- Moisture resistant
- Chemically resistant
- Vibration resistant flexible

Specifications: Meets or exceeds MIL-I-46058C Type SR and IPC-CC-830B. UL94 V-0 rated.

TECHSPRAY

INE-L-KOTE



FINE-L-KOTE™ HT

High Viscosity — 60-90 CPS

FINE-L-KOTE™ SR

Standard Viscosity — 4-10 CPS

vibration protection

2102-125

2102-P

2102-G

2102-5G

2102-GHV

Silicone coating engineered for superior thermal and moisture resistance

Silicone coating that's ideal for moisture and

12 oz. (355ml) aerosol

1 pt. (473mL) can

1 gal. (3.8L) can

5 gal. (19L) pail

1 gal. (3.8L) pail

2106-12S 12 oz. (355ml) aerosol 2106-G 1 gal. (3.8L) can



2106-125

- Designed for high temperature environments
- Fast-drying silicone 1-step process
- Thermal resistance to 662°F (350°C)
- Dielectric strength 560 volts/mil
- Moisture resistant
- Vibration resistant flexible

Specifications: Meets or exceeds MIL-I-46058C Type SR and IPC-CC-830B. UL94 V-0 rated.



FINE-L-KOTE[™] LED

Silicone conformal coating designed to coat over LEDs

Coat directly over LEDs without the time and expense of masking. Optical clarity prevents light from diffusing, scattering, or changing wavelength. Fine-L-Kote LED provides maximum protection from extreme temperatures on the flexible and rigid PCBs found in LED displays.

2120-P 1 pt. (473mL) can **2120-G** 1 gal. (3.8L) can **2120-5G** 5 gal. (19L) pail



- Fully transparent will not block or change light intensity or wavelength
- Protects against adverse environments
- Flexibility prevents cracking
- Resists moisture, salt, fungus and corrosive vapors from severe environments
- Withstands high heat from PCB and operating environment

CONFORMAL COATING SELECTION GUIDE

	2120 Fine•L•Kote LED	2108 Turbo-Coat	2109 Turbo-Coat HV	2102 Fine•L•Kote SR	2102 HV Fine•L•Kote SR	2106 Fine-L-Kote HT	2104 Fine-L-Kote UR
Product Benefits	Optically Clear	Economical With Fastest Cure	Economical With Fastest Cure	Moisture & Vibration Resistant	Moisture & Vibration Resistant	High Operating Temperature	Durable & Chemically Resistant
Selective Spray System	•	0	•	0	•	•	•
Atomized Spray System	•	•	•	0	•	0	•
Dip	•	•	•	•	•	•	•
Aerosol Available	NO	YES	USE 2108-12S	YES	USE 2102-12S	YES	YES
Thermal Resistant	•	0	0	•	•	•	0
Moisture /Fungus Resistant	•	0	0	•	•	•	•
Chemical Resistant	•	0	0	•	•	•	•
Vibration Resistant	•	0	0	•	•	•	0
Ease of Rework	•	•	•	•	•	•	0
Tack Free Time (minutes)	60	3	9	60	60	45	15
Accelerated Cure Time/Temp	2 Step 30 Min.@ 32°C 45 Min.@ 93°C	1 Step 20 Min.@ 65°C	1 Step 55 Min.@ 55°C	2 Step 30 Min.@ 32°C 45 Min.@ 93°C	2 Step 30 Min.@ 32℃ 45 Min.@ 93°C	1 Step 15 Min.@ 49°C	2 Step 20 Min.@ 49°C 30 Min.@ 82°C
Ambient Cure Time Mil-I-46058C/	72 Hrs.	<15 Hrs.	<15 Hrs	72 Hrs.	72 Hrs.	24 Hrs.	24 Hrs.
IPC-CC-830 Qualified		YES	YES	YES	YES	YES	YES
UL 94 Rated		V-0	V-0	V-0	V-0	V-0	V-0
Solids Content (% by weight)	47%	Aerosol 7% Bulk 17%	Bulk 24%	Aerosol 11% Bulk 14%	Bulk 55%	Aerosol 16% Bulk 25%	Aerosol 7% Bulk 20%
Viscosity (centipoise)	Bulk 60-70	Aerosol 10-20 Bulk 15-25	Bulk 55-60	Aerosol 4-10 Bulk 4-10	Bulk 70-80	Aerosol 15-25 Bulk 15-25	Aerosol 12-22 Bulk 10-20
UV Indicator	NO	YES	YES	YES	YES	YES	YES
Operating Temp Range	-65° to 200° C	-65° to 125° C	-65° to 125° C	-65° to 200° C	-65° to 200° C	-40° to 350° C	-30° to 121° C
Dielectric Strength	1 kV/Mil	1 kV/Mil	1 kV/Mil	1.1 kV/Mil	1.1 kV/Mil	560 V/Mil	380 V/Mil
Dielectric Constant				2.66	2.66	2.5	3.8
Insulation Resistance (ohms)		4.89 x 10 ¹⁶	4.89 x 10 ¹⁶	6.87 x 10 ¹⁵	6.87 x 10 ¹⁵	1.33 x 10 ¹⁶	1.78 x 10 ¹⁶
VOC	Bulk 54%	Aerosol 33% Bulk 64%	Bulk 7%	Aerosol 46% Bulk 58%	Bulk 46%	Aerosol 51% Bulk 79%	Aerosol 52% Bulk 80%





Acrylic Conformal Coating

2108-12S12 oz. (355ml) aerosol2108-P1 pt. (473mL) can2108-G1 gal. (3.8L) can2108-5G5 gal. (19L) pail



2108-12S

- Fastest cure dry to touch in 3 minutes!
- Low toxicity
- No Toluene, Xylene or MEK
- UL94 V-0 rated nonflammable final coat
- Fast & easy rework & repair
- UV indicator for black light QC inspection

Specifications: Meets or exceeds MIL-I-46058C Type AR and IPC-CC-830B. UL94 V-0 rated.

TURBO-GOAT HY

Acrylic Conformal Coating

2109-F 1 pt. (473mL) can **2109-G** 1 gal. (3.8L) can **2109-5G** 5 gal. (19L) pail



2109-G

- Designed for selective sprayers
- Low toxicity
- No Toluene, Xylene or MEK
- Dry to touch in under 10 minutes!
- UL94 V-0 nonflammable final coat

Specifications: Meets or exceeds MIL-I-46058C Type AR and IPC-CC-830B. UL94 V-0 rated.

FINE-L-KOTE™ UR

Urethane Conformal Coating

2104-125 12 oz. (355ml) aerosol **2104-G** 1 gal. (3.8L) can **2104-5G** 5 gal. (19L) pail



2104-12S

- Thermal resistance to 248°F (120°C)
- Dielectric dtrength 380 volts/mil
- Moisture resistant
- Chemically resistant
- Abrasion resistant
- UL94 V-0 nonflammable final coat

Specifications: Meets or exceeds MIL-I-46058C Type UR and IPC-CC-830B. UL94 V-0 rated.

Conformal Coating Remover

Quickly and precisely removes most conformal coatings including acrylic, urethane, and silicone.

2510-N 10 ml pen **2510-P** 1 pt. (473mL) can



2510-P



- 2510-N
- Fast stripping action
- Non-corrosive
- Rapid evaporation

FINE-L-KOTE[™] Thinner

Thin Fine-L-Kote coatings to meet production requirements.

2105-G 1 gal (3.8L) can



Turbo-Coat Thinner

If viscosity needs to be lowered, Turbo-Coat Thinner is ideally matched to Turbo-Coat coatings.

2110-P 1 pt. (473mL) can **2110-G** 1 gal. (3.8L) can



2110-G



Temporary Solder Masks

Techspray's WonderMASK is the industry leading temporary solder mask brand because of quality and versatility. Depending on the product, mask can be peeled off manually, or washed off in a batch or inline system.

All Techspray WonderMASK products have the following advantages:

- Can be cured in pre-heat
- Withstands lead-free soldering temperatures up to 640°F (343°C) in wave soldering process
- RoHS compliant

Washable Masks Used with aqueous cleaning processes.

WonderMASK WSOL

Water-washable mask, safe on ion beds and filters

Ideal water-washable mask for closed-loop systems. Quickly and easily removed with in-line and batch cleaning system

2204-8SQ 8 fl. oz. (237mL) squeeze bottle

2204-G 1 gal. (3.8L) bottle





- Safe on ion beds & filters in closed-loop cleaning systems
- Non-corrosive

NSVWJapuom NSVWJapuom Japun

Low odor

WonderMASK W

Nonflammable, water-washable

Quick drying water-washable mask. Quickly and easily removed with in-line and batch cleaning systems.

Note: do not use in closed-loop wash systems.

Hand Applications:

2205-8SQ 8 fl. oz. (237mL) squeeze bottle

2205-G 1 gal. (3.8L) bottle **Robotic & Pneumatic Applications:** 2206-G 1 gal. (3.8L) bottl



- Water washable
- Non-corrosive
- Low odor
- Nonflammable

Specifications: Meets MIL-STD-2000 paragraph 5.3.18 parts a,b, and d. (2206) HP 8500-4214

TEMPORARY SOLDER MASK SELECTION GUIDE

PRODUCT	APPLICATION	VISCOSITY	SUGGESTED THICKNESS	THINNER	CURE TIME	REMOVAL
PEELABLE						
2211 WonderMASK P	Template, Hand, Pneumatic, Robotic	28,000 — 32,000 cps	20 — 30 mils	D.I. Water	1 hr. Ambient 30 min. @65° C 20 min. @82° C	Peelable
2222 WonderMASK PX	Hand Applied	9,000 — 16,000 cps	15 mils	D.I. Water	15 min. Ambient	Peelable
TC-533 Techform	Hand Applied	9,000 — 15,000 cps	15 mils	D.I. Water	1 hr. min. Ambient 30 min. @65° C	Peelable
WATER-SOLUBLE						
2204 WonderMASK WSOL	Hand, Pneumatic	11,500 — 15,500 cps	5 — 15 mils	Methanol	30 min. @65° C	Soluble in Water 49° C or higher
2205 WonderMASK W	Hand Applied	8,000 — 12,000 cps	10 — 15 mils	D.I. Water	30 min. @80° C 1-2 hrs. Ambient	Soluble in Water 49° C or higher
2206 WonderMASK W	Pneumatic, Robotic	6,050 — 6,450 cps	10 — 15 mils	D.I. Water	1-2 hrs. Ambient 30 min. @80° C	Soluble in Water 49° C or higher





Peelable Masks Used with solvent cleaning and no-clean processes.

WonderMASK PX

Natural latex peelable solder mask with fastest cure time.

Natural latex temporary solder mask that is specially formulated to cure in half the time of other masks.

WonderMASK PX cures over its entire surface area, including where it adheres to the PCB. This allows it to be peeled quickly and easily when other masks are still sticky at the bottom. Even the thickest bead of mask cures completely.

Specifications: Meets MIL-STD-2000 paragraph 5.3.18 parts a, b, and d.

- Fastest full cure
- Easily peelable
- Highest strength to avoid breakage
- Nonflammable

2222-8SQ 8 fl. oz. (237ml) squeeze bottle

2222-G 1 gal. (3.8L) bottle



2222-8SO



WonderMASK PX peels after 15 min.



Typical mask after 15 min.

WonderMASK P

Non-ammoniated, low odor peelable mask

Techspray's original ammonia-free synthetic latex peelable solder mask. Specifications: MIL-STD-2000 paragraph 5.3.18 parts a,b, and d. Ford Tox #039772.

2211-8SQ 8 fl. oz. (237mL) squeeze bottle

2211-G 1 gal. (3.8L) bottle 2211-5G 5 gal. (19L) pail 2211-54G 54 gal. (205L) drum



2211-850

- Easily peelable
- Low odor
- Cure indicator darkens as it cures
- Compatible with gold and copper leads
- Non-corrosive
- Nonflammable



Techform TC-533 Peelable Mask

Kester peelable mask is a high-temperature flexible solder masking compound specially formulated of natural latex rubber. Prevent solder from flowing into contacts, terminals, screw heads and plated through holes.

Latex has been chemically enhanced so that it is heat stable enough for wave soldering processes. Effectively mask and protect the board from the time it is manufactured, through all assembly and reflow operations.

NOTE: Not recommended on bare copper because ammonia may cause discoloration.

- Fast cure
- Easily peelable
- Will not tarnish gold or phosphor bronze
- Protects delicate components
- Nonflammable

53-4001-0533

1pt. (0.47L) squeeze bottle

53-4003-0533

1 gal. (3.8L) bottle

53-4004-0533

5 gal. (19L) pail



53-4001-0533



Freeze Sprays

Freeze sprays blast fast evaporating liquid that super-chills isolated areas. Used as a troubleshooting aid for intermittently faulting capacitors, resistors, semiconductors, and other defective components. They also increase visibility of cold solder joints, cracks in printed circuit boards and oxidized junctions.

- Nonflammable
- Safe on plastics
- Zero residue
- Moisture free
- Non-ozone depleting
- VOC exempt

Freeze Spray Pure HFC-134a freeze Spray

- Chills down to -60°F (-51°C)
- Nonflammable
- Safe for energized equipment

1672-10S 10 oz. (283g) aerosol 1672-15S 15 oz. (425g) aerosol **CAN1672-10S** 10 oz. (283g) aerosol

Canada compliant packaging









Anti-Static Freeze Spray

ESD-Safe Diagnostic Freeze Spray

1747-10S 10 oz. (283g) aerosol



1747-10S

- Avoids static build-up
- Prevents latent failures
- Chills down to -60°F (-51°C)
- Nonflammable
- No frost buildup

Eco-Freezer

Eco-Friendly Freeze Spray

Eco-Freezer is formulated with new HFO-1234ze propellant, with a fraction of the global warming potential (GWP) of HFC-134a based freeze sprays. HFO-1234ze has a GWP of 6, compared to HFC-134a with GWP of 1300. Eco-Freeze can be a drop-in replacement when GWP needs to be lowered.

1583-10S 10 oz. (283g) aerosol



- Chills down to -49°F (-45°C)
- GWP less than 1/100th of HFC-134a
- Nonflammable
- Non-ozone depleting



Desoldering Braid

Desoldering braid (wick) is pre-fluxed copper braid that is used to remove solder, which allows components to be replaced and excess solder to be removed.

Techspray wick is available in static dissipative bobbins (except where indicated) for static sensitive environments.

Techspray No-Clean wick is coated with proprietary flux that only leaves a slight clear residue, which does not cause service issues. Cleaning after using Techspray No-Clean wick is strictly optional.

Specifications: Meets or Exceeds MIL-F-14256; NASA NHB 5300, 4 (34-1); NASA NPC 200-4; NASA SP5002; 1821:HP 8690-0588; 1823: HP 8690-0577; IPC Standard-J-STD-004



MADE IN USA

Pro-Wick® Rosin — ESD-Safe Bobbin (🕰)

For the fastest wicking action, rosin flux coated braid is ideal for high volume PCB production/repair environments.

		Size/Color	5′	10′	25′	100′	500′
	1808	#1 White	1808-5F	1808-10F		1808-100F	
TEGHSPRAY.	1809	#2 Yellow	1809-5F	1809-10F	1809-25F	1802-100F*	1802-500F*
14 S S S S S S S S S S S S S S S S S S S	1810	#3 Green	1810-5F	1810-10F	1810-25F	1810-100F	1803-500F*
PANWICK	1811	#4 Blue	1811-5F	1811-10F	1811-25F	1811-100F	1804-500F*
	1812	#5 Brown	1812-5F	_			
	1813	#6 Red	1813-5F	_	_	_	_

* Not packaged in ESD-safe bobbins

No-Clean Wick — ESD-Safe Bobbin 🖾

The cleanest No-Clean braid in the industry. The proprietary flux formula is specially designed to avoid catastrophic and latent PCB failures caused by ionic flux residue.

			Size/Color	5′	10′	25′	50′	100′
		1820	#1 White	1820-5F	1820-10F	_	1820-50F	
TEGHSPR		1821	#2 Yellow	1821-5F	1821-10F	1821-25F	1821-50F	_
12 10 t		1822	#3 Green	1822-5F	1822-10F	_	1822-50F	1822-100F
NO. CLE	AM	1823	#4 Blue	1823-5F	1823-10F	1823-25F	_	1823-100F
OL.		1824	#5 Brown	1824-5F		1824-25F	—	
		1825	#6 Red	1825-5F	_	_	_	_

Unfluxed Wick — ESD-Safe Bobbin 💪

For customers who use water-soluble flux, or their own flux for aqueous processes.

		Size/Color	5′	10′
TEGHSPRAY.	1830	#1 White	_	1830-10F
1832-54	1831	#2 Yellow	_	1831-10F
UM MADE IN USA CO	1832	#3 Green	1832-5F	
WELUKY.	1833	#4 Blue	_	1833-10F



Match braid width to contact area





Rework & Repair Pens

TraceTech[™]

Flux Remover Pen

Spot cleaning for PCB rework and repair

2506-N Single-pack of 11.5 ml pen



- Safe on plastics
- Rapid evaporation
- Pen tip allows controlled application

TraceTech"

No-Clean Flux Dispensing Pen

No-clean flux applicator pen for PCB rework and repair

2507-N Single-pack of 11.5 ml pen

2507-N100 144 pack of 11.5 ml pens, 12 boxes of 12



- Excellent wetting
- Works with lead and lead-free solders
- Boost wetting for lead-free wire solder
- No cleaning necessary

TraceTech.

Conductive Pen

Silver ink pen for repairing electronic traces

2505-N Single-pack of 4.9 ml pen



- Repairs traces
- Makes smooth jumpers

TraceTech[™]

Overcoat Pen

Resist repair pen for PCB rework and repair

2509-GN Single-pack of 5 ml pen



- Repairs solder resist
- Green to match resist
- Prevents shorting and arcing

TraceTech"

Conformal Coating Remover Pen

Spot coating remover in applicator pen for PCB rework and repair

2510-N 10 ml pen **2510-P** 1 pt. (0.47L) can



- Fast stripping action
- Non-corrosive
- Rapid evaporation

Heat Sink / Transister Grease

Silicone Heat Sink Compound

Heat sink compound for electrical applications

1977-DP 4 oz. (118ml) squeeze tube



- Thermal conductivity 0.70 W/m-K
- Functional temperature Range -67°F to 401°F (-55°C to 205°C)
- Easy application
- Will not harden and crack

Silicone-Free Heat Sink Compound

Heat-sink for electronics, avoid silicone contamination

1978-DP

4 oz. (118ml) squeeze tube

1978-1

1 lb. (454g) jar



- Thermal conductivity 0.92 W/m-K
- Functional temperature range -40°F to 392°F (-40°C to 200°C)
- Avoid solder defects due to silicone contamination
- Easy application
- Will not separate
- Will not harden and crack



TECHSPRAY®

Wipes

Techspray offers a large array of wipes for a variety of applications, including cleanroom, PCB rework, polishing, and maintenance. A large number of different materials are available to meet each unique requirement.

•Cleanroom Wipers: Meet the particulate count and extractables for Class 10 / ISO Class 4 and Class 100 / ISO Class 5 cleanrooms.





- Maintenance Wipers: Lower cost, high quality wipers for heavyduty cleaning.
- Delicate Task Wipers: Cellulose tissue for light cleaning, like in lab settings.
- Microfiber Wipes: Polishing wipes that are ideal for screen and display cleaning, with or without a cleaner.
- SMT Roll Wipes: DEK and MPM understencil roll wipes to fit the most common printers.



TECHCLEAN® WIPES SELECTION GUIDE

Key: \bullet = Best \bullet = Acceptable \circ = Not applicable / Not recommended

			Properti	es				Арр	lication				
	Cleanroom	Material	Construction	Absorbency	Strength	Electronics	ESD- Sensitive	LCD Cleaning	Stencil Cleaning	Lab	Optics	Industrial	Office
2340 Cotton Wiper		Cotton	Non- woven	•	0	•	0	0	•	•	0	•	•
2342/2343 Task Wipers	n/a	Poly / Cellulose	Non- woven	0	0	•	0	0	0	•	•	0	0
2350 Wiper	100 / ISO 5	Poly / Cellulose	Non- woven	•	0	•	0	0	•	•	0	•	•
2351/2352 Absorbwipe	100 / ISO 5	Polyester	Non- woven	0	0	•	0	0	0	0	•	0	0
2355 Purewipe	100 / ISO 5	Polyester	Knit	0	•	•	0	0	•	•	0	0	0
2357 Twill Wipe	n/a	Cotton	Woven	•	•	0	0	0	0	0	0	•	0
2358 SMT Wipe	100 / ISO 5	Poly- urethane	Foam	•	0	0	0	0	•	0	0	0	0
2359/2364/2365 Maintenance Wipe	n/a	Poly / Cellulose	Non- woven	•	0	•	0	0	•	•	0	•	•
2362 Antistatic Wipe	10 / ISO 4	Polyester	Knit	0	•	•	•	0	0	•	0	0	0
2363 Microfiber Wipe	n/a	Poly / Nylon	Knit	0	•	•	0	•	0	0	•	0	•
2366/2367 Roll Wipes	n/a	Poly / Cellulose	Non- woven	•	0	0	0	0	•	0	0	0	0
2368 LCD Wipe	n/a	Nylon	Knit	0	•	0	0	•	0	0	0	0	•



TechClean Wiper (100)

General Purpose Wipe



Hydroentangled cellulose/polyester wipe with high absorbency and extra low particulate count and no chemical extractables.

100 - 8"x10" (20cm x 25cm) c-fold wipes, 2350-100

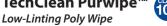
double-bagged



- Class 100 cleanroom qualified
- High absorbency
- Very low particulate count

Specifications: Exceeds U.S. Air Force requirements for surface contamination, HP 9300-1618

TechClean Purwipe™



100% polyester wipe is a strong, low-linting wipe that is ideal for SMT stencil cleaning and PCB rework. Tear resistant to allow cleaning around leads without fraying.

2355-100 100 - 9"x9" (23cm x 23cm) flat wipes, double-bagged



- Class 100 cleanroom qualified
- Very low particulate count
- Tear resistant

Cotton Cleanroom Wiper

This hydroentangled cotton wipe has high absorbency with extra low particulate and chemical extractables. Ideal for stencil cleaning.

2340-100 100 - 9" x 9", (23cm x 23 cm),

flat wipes, double-bagged



- Low chemical extractables
- Lint-free & soft
- Biodegradable & sustainable
- High absorbency 6 times its weight
- Made with USA grown cotton

Recycled Delicate Task Wipers

Ideal for light cleaning tasks in the laboratory, repair and maintenance facilities, and more. Quickly and easily wipes up liquid and dust. Packaged in a portable dispenser that reduces lint and cross contamination.

2342-300 280 count, 4.4" x 8.3" (11cm x 21cm),

pop-up box, 60 boxes/case

2343-140 140 count, 15" x 16.6" (38cm x 42cm),

pop-up box, 140 boxes/case



- Low linting
- Eco-friendly replacement for Kimwipes (KC34155, KC34256)
- 100% recycled wipe & box
- Biodegradable & sustainable

TechClean Absorbwipe™





Very soft and absorbent hydroentangled polyester wipe for cleaning optical equipment, fiber optics, and other sensitive surfaces.

2351-100 100 - 4"x4" (10cm x 10cm) flat wipes, double-bagged 2352-100 100 - 9"x9" (23cm x 23cm) flat wipes, double-bagged



- Non-abrasive
- Extremely soft
- Highly absorbent

TechClean Maintenance Wipes

Hydroentangled cellulose/polyester wipe with high absorbency. Economical, but very high quality wipes are ideal for production and maintenance applications.

2359-300 300 - 9"x9" (23cm x 23cm) flat wipes

Economy Grade

50 - 12"x 12" (30.5cm x 30.5cm) dry wipes 2364-50 2365-300 300 - 9" x 9" (23cm x 23cm) dry wipes



- High absorbency
- Economical





Anti-Static Wipe (10)





Polyester wipe that is interwoven with DuPont's NEGA-STAT carbon yarn. NEGA-STAT dissipates static charge, preventing static buildup and allowing dissipation. Perfect for dry wiping ESD-sensitive components and boards. Tear resistant to allow cleaning around through-hole leads without fraying.

2362-150 150 - 9"x9" (23cm x 23cm) flat wipes

- Anti-static will not generate charge
- Class 10 cleanroom laundered & qualified
- Tear resistant

TechClean Twill Wipe

Tear Resistant Cotton

100% cotton twill weave designed for wiping abrasive surfaces. Tear resistant to allow cleaning around leads without fraying. Low static generation, so good for static sensitive areas.

2357-100 100 - 6"x6" (15cm x 15cm) flat wipes, double-bagged

- Tightly woven 100% cotton
- Tear resistant
- Low static generation

TechClean SMT Wipe



Lint-Free Foam

Polyurethane foam wipe designed for cleaning surface mount stencils and screening equipment. Fiber-free foam does not generate lint, which can clog fine pitched stencils and cause misprints.

2358-50 50 - 9"x9" (23cm x 23cm) flat wipes, double-bagged

- Class 100 cleanroom qualified
- Fiber-free construction no linting
- Will not snag on stencils
- Tear resistant

Microfiber Glass & Plastic Cleaning Wipes

Cleans and polishes glass or plastic. Ideal for removing fingerprints and light oils without the use of solvent cleaners.

2363-50 50 - 8" x 8" (20cm x 20cm) dry wipes

w/hemmed edges, double-bagged



- Low-linting
- Washable (avoid fabric softener)

LCD & Plasma Screen Cleaning Wipes

Soft and low-linting microfiber terry cloth is ideal for cleaning and polishing LCD and plasma screens, plexi-glass, chrome, and other sensitive surfaces. Buffs surface to a shine with or without cleaner.

2368-2 2 - 16"x 16" (40.6cm x 40.6cm) dry wipes w/hemmed edges



- Cleans & polishes sensitive surfaces
- Perfect for chrome polishing
- Effective wet or dry
- Washable (avoid fabric softener)
- Low-linting

Roll Wipes for DEK and MPM SMT Printers

Made from low lint fabric and designed for vacuum operation.

- Maximum absorbency
- Strong both wet & dry
- Textured non-woven poly-cellulose fabric
- Low linting prevents misprints
- Density 68 GSM





Part#	OEM Brand	Equip model	Core ID	Notch	Paper Width	Core Width	Matl Length
2366-DEK	DEK	DEK 265, #129051/GS, GSX & 288	0.75" (19mm)	1	20.3" (515mm)	20.9" (530mm)	39' (11.9 M)
2367-MPM	MPM	MPM #1485/AP & UP2000	0.75" (19mm)	0	17.5" (444mm)	18" (457mm)	39′ (11.9 M)





TechSwabs

Precisely designed, manufactured and packaged to serve a wide variety of cleaning and maintenance needs. TechSwabs are manufactured in accordance with Techspray's rigid specifications, using specialized materials to ensure low particle generation.

Cotton TechSwabs

Tightly wrapped, pre-cleaned cotton ensures the least amount of extractable contaminants. The most economical choice for high volume usage.

All	swahs	shown	actual	size -	1 - 1	scale
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	Tip	Attachment	Handle	Handle	30	100	1000
Product	Width	of Tip	Length	Material	Pack Bag	Pack Bag	Pack Bag
2300	0.1875" (4.8mm)	Wrapped	6" (15cm)	Wood	_	2300-100	2300-1000
2301	0.1875" (4.8mm)	Wrapped	6" (15cm)	Wood	_	2301-100	2301-1000
2313	0.125" (3.2mm)	Wrapped	3 .25" (8.3cm)	Paper	2313-30	_	_

Foam TechSwabs

All foam swabs are manufactured with 100 pores per inch reticulated polyurethane foam, which ensures excellent absorbency while minimizing contamination. Tips are affixed by heat seal to prevent tip loss, even while saturated with solvent. Flexible tips provide versatility and softer touch, while rigid heads allow for more aggressive cleaning.

Tip	Attachment	Handle	Handle	50	1000
Width	ofTip	Length	Material	Pack Bag	Pack Bag
0.44" (11.2mm)	Heat Sealed	6" (15cm)	Polypropylene	2302-50	2302-1000
Cotton Bud Wrapped in Fo	oam, Rigid Head				
0.19" (4.8mm)	Heat Sealed	6" (15cm)	Polypropylene	2303-50	2303-1000
62					
0.5" (13mm)	Heat Sealed	5" (13cm)	Polypropylene	2306-50	2306-100
0.19" (4.8mm)	Heat Sealed	4" (10cm)	Polypropylene	2307-50	2307-100
0.125" (3.2mm)	Heat Sealed	3" (7.6cm)	Polypropylene	_	2309-100
0.125" (3.2mm)	Heat Sealed	2.625" (6.7cm)	Polypropylene	_	2311-1000
	0.44" (11.2mm) Cotton Bud Wrapped in Form 0.19" (4.8mm) 0.19" (4.8mm) 0.125" (3.2mm)	Width of Tip 0.44" Heat Sealed (11.2mm) Cotton Bud Wrapped in Foam, Rigid Head 0.19" Heat Sealed (4.8mm) 0.5" Heat Sealed (13mm) 0.19" Heat Sealed (3.2mm) Heat Sealed	Width of Tip Length 0.44" Heat Sealed (11.2mm) 6" (15cm) Cotton Bud Wrapped in Foam, Rigid Head (15cm) 0.19" Heat Sealed (15cm) 0.5" Heat Sealed (13cm) 0.19" Heat Sealed (4.8mm) 0.125" Heat Sealed (10cm) 0.125" Heat Sealed (7.6cm) 0.125" Heat Sealed (2.625")	Width of Tip Length Material 0.44" Heat Sealed 6" Polypropylene (11.2mm) Cotton Bud Wrapped in Foam, Rigid Head 0.19" Heat Sealed 6" Polypropylene (4.8mm) (15cm) 0.5" Heat Sealed 5" Polypropylene (13mm) (13cm) 0.19" Heat Sealed 4" Polypropylene (4.8mm) (10cm) 0.125" Heat Sealed 3" Polypropylene (3.2mm) (7.6cm)	Width of Tip Length Material Pack Bag 0.44" Heat Sealed (11.2mm) 6" Polypropylene 2302-50 (11.2mm) Cotton Bud Wrapped in Foam, Rigid Head 6" Polypropylene 2303-50 0.19" Heat Sealed 5" Polypropylene 2306-50 (13mm) (13cm) Polypropylene 2307-50 (4.8mm) (10cm) Polypropylene — 0.125" Heat Sealed 3" Polypropylene — 0.125" Heat Sealed 2.625" Polypropylene —



Fiber Optic TechSwabs



All swabs shown actual size - 1:1 scale

Ideal for removing transmission disrupting contaminants in bulkhead connectors. The head conforms to the various connector shapes, cleaning the conductor bulkhead corners inside the bulkhead pocket. Tips are heat bonded, so no contaminating adhesives have been used.

	Tip	Attachment	Handle	Handle	50	1000
Product	Width	of Tip	Length	Material	Pack Bag	Pack Bag
2316	0.05" (1.25mm)	Heat Sealed	6.25" (16cm)	Polypropylene	2316-50	2316-1000
Flexible Tip	-					
2317	0.1" (2.5mm)	Heat Sealed	6.25" (16cm)	Polypropylene	2317-50	2317-1000
Flexible Tip	BECKENDEN.	NAMES OF STREET	SALE DANKER OF SALES	SCAIP WARMANA AND ADDRESS OF	PARTY OF THE PARTY OF	THE RESERVE

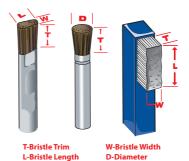
Brushes

Techspray's TechClean® brushes are made of premium grade materials. Don't be fooled by cheap imports. Bristles are securely stapled in place, eliminating loose bristles.

Choose the Right Bristle Material for Your Needs:

Natural — Soft, resilient and long lasting. Hog bristles are stiffer than

Metal — For burnishing, polishing, non-sparking static dissipation and deburring. Brass is a softer bristle than stainless steel.



Selecting the right brush:

Brushes dimensions are specified as bristle length (L), width (W), and trim (T).

General Cleaning Brushes

A wide variety of sizes and bristle material for general maintenance cleaning. All handles are made of strong, static neutral wood.

FRONT VIEW	SIDE VIEW Product	L Bristle Length	W Bristle Width	T Bristle Trim	Bristle Material	Handle Material	Handle Length
	2020-1	1.375" (35mm)	0.25" (6.4mm)	0.44" (11mm)	Horse Hair	Wood	7.75" (19.7cm)
	2021-1	1.375" (35mm)	0.25" (6.4mm)	0.44" (11mm)	Hog Bristle	Wood	7.75" (19.7cm)
	2022	2.125" (54mm)	0.875" (22mm)	0.75" (19mm)	Hog Bristle	Wood	8.375" (21.3cm)
	2025-1	1.375" (35mm)	0.25" (6.4mm)	0.44" (11mm)	Brass .003" (0.08mm)	Wood	7.75" (19.7cm)
	2027-1	0.875" (22mm)	0.375" (9.5mm)	0.5" (12.7mm)	Hog Bristle	Wood	4.94" (12.5cm)





Static Sensitive Brushes

Ideal for cleaning static sensitive electronics or components. Anodized aluminum falls withing the static dissipative range. Steel bristles are conductive, and horse hair is conductive when saturated with solvent.

FRONT VIEW	SIDE VIEW	Product	L Bristle Length	W Bristle Width	T Bristle Trim	Bristle Material	Handle Material	Handle Length
		2040-1	1.19" (30.2mm)	0.125" (3.2mm)	0.44" (11.2mm)	Horse Hair	Anodized Aluminum	6.44" (16.4cm)
MA		2042-1	1.19" (30.2mm)	0.375" (9.5mm)	0.44" (11.2mm)	Horse Hair	Anodized Aluminum	6.44" (16.4cm)
		2043-1	1.19" (30.2mm)	0.375" (9.5mm)	0.44" (11.2mm)	Stainless Steel .003" (0.08mm)	Anodized Aluminum	6.44" (16.4cm)

Technical Brushes

Small, precision brushes for technical cleaning and coating or adhesive application. Double-sided brushes include tapered end for tight areas.

FRONT VIEW	SIDE VIEW	Product	L Bristle Length	W Bristle Width	T Bristle Trim	Bristle Material	Handle Material	Handle Length
•		2030-1	0.125" (3.2mm)	0.0625" (1.6mm)	0.125" (3.2mm)	Goat Hair	Stainless Steel	3.5" (8.9cm)
	Top View 10-10-10-10-10-10-10-10-10-10-10-10-10-1	2031-1	0.25" (6.4mm)	0.19" (4.8mm)	A - 0.25" (6.4mm) B - 0.5" (13mm)	Horse Hair	Stainless Steel	4.5" (11.4cm)
	Top View	2032-1	0.5" (13mm)	0.375" (9.5mm)	A - 0.19" (4.8mm)	Horse Hair	Zinc Plated Steel	4.5" (11.4cm)
	A Side View B				B - 0.25" (6.4mm)			
		2033-1	0.44" (11.2mm)	0.375" (9.5mm)	0.75" (19mm)	Horse Hair	Zinc Plated Steel	4.5" (11.4cm)

LOOK INSIDE FOR EXCITING NEW PRODUCTS...



Aviation Degreasers

- Meet Boeing & Airbus specifications
- NESHAP qualified
- Do not contain nPB & other highly toxic solvents



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Fine-L-Kote[™] LED Conformal Coating

- Coat over LEDs without diffusing or changing color of the light
- Eliminate time & materials masking around LEDs

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Straff.

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