



## Electronics Maintenance

MG Chemicals' line of electronics maintenance cleaners comprise a full range of products that meet cleaning requirements specific to the electronics industry. A great tool for maintenance, repair and operations (MRO) shops, these cleaners are effective against soils and contaminants common in MRO electronics. Whether you need to clean PCBs prior to applying conformal coatings, remove oxides on electrical contacts, or restore an aging rubber platen, MG Chemicals' line of MRO maintenance products has you covered.

**Air Duster** – Formulated to deliver a high rate of compressed gas to safely and effectively remove microscopic dust, lint, and foreign particles.

**Alcohol Wipes** – Pre-saturated with either 99.9% or 70% IPA, these wipes are made of durable, tear-resistant materials that make cleaning areas quick and easy. Multiple package options available for your convenience.

**Dry Wipes** – Fabricated with Absorbent, tear-resistant material, dry wipes are great for quickly cleaning spills leaving surfaces clean and dry.

**Cleaning Brushes** – Multiple bristle and handle types available for cleaning that requires light scrubbing.

**Cleaning Swabs** – Use cleaning swabs to scrub away dirt and grime in hard-to-reach places, available in a variety sizes, shapes, and material.

**Isopropyl Alcohol** – A universal cleaner available in either 99.9% or 70% concentration for cleaning hard surfaces such as PCBs and screens.

**Contact Cleaners** – Restores and rejuvenate contacts, connectors and controls that have become corroded and worn out over time. Available as a lubricant for switches and relays or fast-dry system for non-moving parts.

**Electronics Cleaners** – Available in a variety of drying times, cleaning strengths and packaging, electronic cleaners are perfect either for prepping boards for conformal coating or cleaning post solder. This class of cleaners is effective against common contaminants such as oil, flux, fingerprints, and grease.

**Specialized Cleaners** – Cleaners formulated with a specific application in mind such as rejuvenating rubber, removing label adhesive or glass cleaning.

**Freeze Sprays** – Compressed non-reactive refrigerant that delivers a short burst of chilled air, as low as -50 °C (-60 °F), to prevent overheating. They are non-flammable, non-conductive, moisture free, and zero residue, providing a safe method of quickly cooling individual components or entire PCB's in circuit board repair applications.



1-800-381-7308  
sales@diverseelectronics.com  
diverseelectronics.com





## High Cleaning Power

MG Chemicals air dusters deliver high velocity air to remove microscopic dust, lint, and foreign particles from electronics and electrical equipment safely and effectively.

Our air duster is available either as an aerosol spray or electronic device and is suitable for use in labs, work benches, maintenance and service shops, off-site servicing, residential homes, offices, and industry.

### Features and Benefits

- Ideal for removing lint, dust, and other debris
- Prevents malfunctions and lengthens operating life
- Compatible with electrical equipment and electronic components

### Applications

- Electrical and electronics boards and systems
- Ventilation and heat sink systems
- Audio visual equipment
- Lab equipment
- Equipment cleaning

### SUPER DUSTER™

- 402A** • Non-flammable duster with pure HFC 134a  
• Used on live electronic and electrical equipment
- 402B** • General purpose with pure 1,1-difluoroethane 152a
- 402C** • Non-flammable duster with 100% HFO-1234ze  
• Recommended for use in home or office

### Electronic SUPER DUSTER™

- 402E** • Portable air blower with multiple settings, digital display and long battery life

### Available Packaging

402A	402B	402C	402E
285 g (aerosol)	285 g (aerosol)	235 g (aerosol)	Electronic duster
450 g (aerosol)	400 g (aerosol)		





## High Purity for Safe Cleaning

### Features and Benefits

- Quickly removes oils, light greases, grime, and flux residues
- Made with strong, durable materials
- Saturated with high purity isopropyl alcohol (IPA)
- Safe on most plastics
- NSF-registered versions are available

### Applications

- Audio, video, magnetic, and optical heads
- Cables
- Electrical contacts and connectors
- Fiber optics
- Optical equipment
- POS devices and scanners
- Precision instruments
- Printed circuit boards
- Production equipment and workstations
- Smartphones, pads, laptops, keyboards, and office equipment
- SMT stencils and screens
- Surfaces being prepared for coating application

**824-W** – Individually packaged alcohol wipes made with a polyester/wood pulp blend, presaturated with 99.9% IPA

**8241-W** – Individually packaged alcohol wipes made with a viscose/polyester blend, presaturated with 70% IPA

**8241-T** – Dispensing tub containing 75 alcohol wipes made with a polyester/wood pulp blend, presaturated with 70% IPA

**8241-110** – Dispensing tub containing 110 polyester alcohol wipes presaturated with 70% IPA

**8241-140** – Soft dispensing pack containing 140 alcohol wipes made with spunlace wood pulp, presaturated with 70% IPA



# Alcohol Wipes



## PROPERTIES

	824-W	8241-W	8241-T	8241-110	8241-140
Solution	99.9% IPA	70% IPA	70% IPA	70% IPA	70% IPA
Material	Wood pulp/ polyester	Viscose/ polyester	Wood pulp/ polyester	Polyester	Spunlace wood pulp
Wipe size	13 cm x 15 cm 5" x 6"	13 cm x 15 cm 5" x 6"	15 cm x 18 cm 6" x 7"	15 cm x 20 cm 6" x 8"	18 cm x 20 cm 7" x 8"
Wipe density	60 GSM	60 GSM	56 GSM	80 GSM	56 GSM
RoHS compliant	Compliant	Compliant	Compliant	Compliant	Compliant
CARB compliant	—	Compliant	Compliant	—	Compliant
NSF registered	—	—	Registered	—	—

## PACKAGING

	824-W	8241-W	8241-T	8241-110	8241-140
Format	Individually wrapped wipe	Individually wrapped wipe	Tub	Tub	Soft pack
Quantity	25 wipes/pack 50 wipes/pack 500 wipes/pack	25 wipes/pack 2500 wipes/pack	75 wipes/tub 12 x 75 wipes/tub	110 wipes/tub	140 wipes/soft pack



## CLEANING BRUSHES



### Clean electronics with efficiency

#### Features and Benefits:

- Durable
- Secured bristles eliminating bristle loss and contamination
- Strong handles

#### Applications:

- Printed circuit board rework and cleanup
- Male and female connectors
- Electronic equipment
- Electronic repair
- Electrical cleaning
- Soldering
- Plant maintenance
- Office equipment maintenance



#### Eight Brushes Available:

##### 850 - STAINLESS STEEL CLEANING BRUSH

A heavy-duty brush with stainless steel bristles and a wooden handle, great for cleaning soldering iron tips, cutting corrosion, and surface preparation.

##### 851 - BRASS CLEANING BRUSH

A heavy-duty brush with brass steel bristles, and a wooden handle, great for cleaning soldering iron tips, removing oxides and corrosion from connector ends, and burnishing without removing base metal.

##### 852 - HOG HAIR BRUSH

A general cleaning brush with stiff hog hair bristles and a wooden handle. Can be used dry or wet and works well with sticky or crusty materials. Great for removing flux, and general clean up.

##### 853 - LARGE HOG HAIR BRUSH

A general cleaning brush with stiff hog hair bristles, and a wooden handle, like the 852, but with a large tuft, making cleaning large areas easier.

##### 855 - HORSE HAIR CLEANING BRUSH

An inexpensive brush with soft horse hair bristles and a sturdy tin handle. Excellent for dusting, cleaning with fluids, and general cleanup.

##### 856 - DOUBLE-ENDED HORSE HAIR CLEANING BRUSH

A double ended cleaning brush made of short natural horse hair bristles and a cad plated steel handle. Its short bristles make it ideal for heavy duty scrubbing. One end is chiseled to clean hard to reach and tight corners and the other is straight for precision cleaning and coating.

##### 857 - CHISEL HOG HAIR CLEANING BRUSH

A hog hair brush with a short vertical plywood handle. Can be used dry or wet. Excellent for removing flux and general clean up.

##### 859 - HORSE HAIR CLEANING BRUSH

A general cleaning brush with natural soft horse hair bristles and a wooden handle. Excellent for delicate cleaning tasks.

## Cleaning Brushes Selection Chart

Cat. Number	Handle Material	Handle Length ( L x W )		Trim Length		Brush Face		Bristle Kind	Bristle Type	Bristle Rows	
		In.	cm	In.	cm	In.	cm			Width	Length
Cleaning brushes											
850	Plywood	7 ¾x 7/16	20 x 1.1	5/16	0.7	1 3/8 x 7/16	3.5 x 1.1	Stainless	Stiff	3	7
851	Plywood	7 ¾ x 7/16	20 x 1.1	¾	1.9	1 3/8 x 7/16	3.5 x 1.1	Brass	Stiff	3	7
852	Plywood	7 ¾ x 7/16	20 x 1.1	5/16	0.7	1 3/8 x 7/16	3.5 x 1.1	Hog Hair	Stiff	3	7
853	Plywood	8 ¼ x 1 1/16	21 x 2.7	¾	1.9	2 1/8 x 7/8	5.4 x 2.2	Hog Hair	Stiff	4	9
855	Tin	5 ¼ x 3/8	15 x 2.5	¾	1.9	¼ x 3/8	0.6 x 1	Horse Hair	Soft	1	1
856	CAD Plated Steel	4 ½ (L)	11.5	¾ / 3/16	1.9 / 0.4	¼ x 5/16	0.6 x 1.7	Horse Hair	Soft / Stiff	1	1
857	Plywood	4 15/16 x 1 1/16	12 x 2.7	½	1.3	¾ x 5/16	1.8 x 1.7	Hog Hair	Soft	2	6
859	Plywood	7 ¾ x 7/16	20 x 1.1	5/16	0.7	1 3/8 x 7/16	3.5 x 1.1	Horse Hair	Stiff	3	7

### 850 - STAINLESS STEEL CLEANING BRUSH



### 851 - BRASS CLEANING BRUSH



### 852 - HOG HAIR CLEANING BRUSH



### 853 - LARGE HOG HAIR CLEANING BRUSH



### 855 - HORSE HAIR CLEANING BRUSH



### 856 - DOUBLE-ENDED HORSE HAIR CLEANING BRUSH



### 857 - CHISEL HOG HAIR CLEANING BRUSH

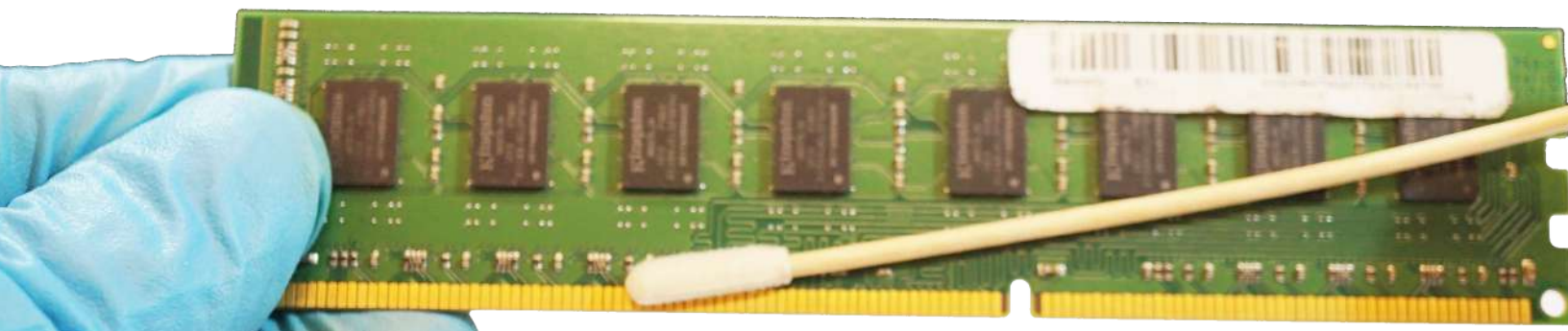


### 859 - HORSE HAIR CLEANING BRUSH





## CLEANING SWABS



### Clean electronics with precision

#### Features and Benefits:

- *Soft and non-abrasive*
- *Bonded securely*
- *Strong shafts*

#### Applications:

- *Printed circuit board rework and cleanup*
- *Electronic equipment*
- *Pharmaceutical operations*
- *Optical & magnetic heads*
- *Contacts and controls*
- *Connectors*
- *Office equipment maintenance*

#### Seven Swabs Available:

##### **810/810D - CHAMOIS SWABS**

The ideal swab for your audio/video magnetic heads and optical pick ups. Made from a lint free, synthetic suede bonded to a bendable ABS plastic handle it facilitates access to hard to reach areas. Available in single or double headed formats.

##### **811 - DOUBLE HEADED COTTON SWAB**

A double headed low lint, extra absorbent U.S.P. pharmaceutical grade purified round cotton tip swab. Bonded on a 6" rigid white birch shaft for extra resistance when applying pressure is needed.

##### **812 - FOAM OVER COTTON SWAB**

A highly absorbent precision cleaning applicator. Shred resistant, 100% urethane foam heads with 100 PPI porosity over extra absorbent U.S.B. pharmaceutical grade purified cotton. Bonded securely to a 6" birch shaft providing extra strength when additional pressure needs to be applied.

##### **812AS - ANTI-STATIC FOAM OVER COTTON SWAB**

Antistatic foam heads over extra absorbent U.S.B. pharmaceutical grade purified cotton. Bonded securely to a 6" birch shaft. Compatible with most solvents.

##### **813 - FOAM SWAB**

A durable precision cleaning applicator, shred resistant made from 100% urethane foam head with 100PPI porosity. Bonded securely to a 6" birch shaft providing extra strength when additional pressure needs to be applied.

##### **814 - RECTANGULAR FOAM SWAB**

A large rectangular foam head bonded to sturdy handle for aggressive cleaning applications. Large shred resistant, 100% urethane foam heads with 100PPI porosity. Bonded securely to a 5 inch polypropylene shaft.

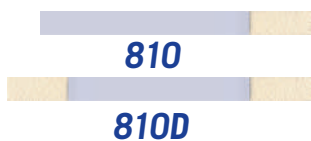
##### **8112 - TAPERED COTTON SWAB**

A double headed low lint, extra absorbent U.S.P. pharmaceutical grade purified tapered cotton tip swab providing added precision. Bonded on a 6" rigid white birch shaft for extra resistance when applying pressure is needed.



## Cleaning Swabs Selection Chart

Cat. Number	Handle Material	Overall Length		Handle Length		Tip Length		Tip End	Tip Shape	Quantity per bag
		In.	cm	In.	cm	In.	cm			
Chamois Swabs										
810-15	ABS Plastic	4	10.16	3.2	8.12	0.9	2.28	Single	Rectangular	15
810-50	ABS Plastic	4	10.16	3.2	8.12	0.9	2.28	Single	Rectangular	50
810-500	ABS Plastic	4	10.16	3.2	8.12	0.9	2.28	Single	Rectangular	500
810D-15	ABS Plastic	5	12.17	4	10.16	1.0	2.54	Double	Rectangular	15
810D-50	ABS Plastic	5	12.17	4	10.16	1.0	2.54	Double	Rectangular	50
810D-500	ABS Plastic	5	12.17	4	10.16	1.0	2.54	Double	Rectangular	500
Cotton Swab										
811-100	Wood	6	15.24	5	12.7	0.5	1.27	Double	Round	100
8112-100	Wood	6	15.24	5	12.7	0.4	1.02	Double	Tapered	100
Foam Swabs										
813-10	Wood	6	15.24	5.5	13.97	0.6	1.52	Single	Round	10
813-50	Wood	6	15.24	5.5	13.97	0.6	1.52	Single	Round	50
813-250	Wood	6	15.24	5.5	13.97	0.6	1.52	Single	Round	250
813-1000	Wood	6	15.24	5.5	13.97	0.6	1.52	Single	Round	1000
814-10	Polypropylene	5.5	13.97	4.5	11.43	0.9	2.28	Single	Rectangular	10
814-50	Polypropylene	5.5	13.97	4.5	11.43	0.9	2.28	Single	Rectangular	50
814-250	Polypropylene	5.5	13.97	4.5	11.43	0.9	2.28	Single	Rectangular	250
814-1000	Polypropylene	5.5	13.97	4.5	11.43	0.9	2.28	Single	Rectangular	1000
Foam Over Cotton Swabs										
812-10	Wood	6	15.24	5.3	13.46	0.5	1.27	Single	Rectangular	10
812-50	Wood	6	15.24	5.3	13.46	0.5	1.27	Single	Rectangular	50
812-250	Wood	6	15.24	5.3	13.46	0.5	1.27	Single	Rectangular	250
812-1000	Wood	6	15.24	5.3	13.46	0.5	1.27	Single	Rectangular	1000
Anti-Static Foam Over Cotton										
812AS-10	Wood	6	15.24	5.3	13.46	0.8	2.03	Single	Rectangular	10
812AS-250	Wood	6	15.24	5.3	13.46	0.8	2.03	Single	Rectangular	250
812AS-1000	Wood	6	15.24	5.3	13.46	0.8	2.03	Single	Rectangular	1000





## CONTACT CLEANERS



### Maintain optimal connectivity

#### Features and Benefits:

- Plastic safe
- Convenient aerosol can packaging
- Variable valve allows user to control rate of flow
- RoHS compliant
- Ozone safe

#### Applications:

- Clean
- Lubricate
- Protect
- Improve performance
- Prolong Conductivity



#### We offer a choice of four Contact Cleaners:

##### 401B - Nutrol Control Cleaner

A unique blend of high purity solvent and special lubricating oil, perfect for cleaning and lubricating moving parts in electronics.

##### 404B - Contact Cleaner with Silicones

A very fast drying contact cleaner that leaves a thin film of dry electronic grade silicone behind providing lubrication and preventing wear and tear, as well as a layer of protection from oxidation and the elements.

##### 409B - Electrosolve Contact Cleaner

A very fast drying and zero residue contact cleaner that cleans connectors, contacts, circuit breakers, microprocessors, and LED and PCB components.

##### 801B - Super Contact Cleaner with PPE

A slow drying contact cleaner that cleans, lubricates, protects, and removes stubborn residues. It also bonds onto the surface of metals and is particularly effective on gold, protecting gold contacts for life.

A must have for audio systems.

**Also available in pen format (801C-P)**

## Contact Cleaners Comparison Chart

Cat. Number	401B	404B	409B	801B	801C-P
<b>Cleaning Characteristics</b>					
PLASTIC SAFE	Yes	Yes	Yes	Yes	Yes
EVAPORATION	Moderate	Fast	Very fast	Slow	Slow
LUBRICANT	Mineral oil	Silicone	None	Mineral oil/PPE	Mineral oil/PPE
<b>Regulatory Status</b>					
NSF COMPLIANT	Yes	Yes	Yes	No	No
CARB compliant	Yes	Yes	Yes	Yes	Yes
<b>Physical Properties</b>					
FLASH POINT	-29 °C / -20 °F	-29 °C / -20 °F	-29 °C / -20 °F	58 °C / 137 °F	58 °C / 137 °F
BOILING POINT	52 °C / 126 °F	52 °C / 126 °F	52 °C / 126 °F	183 °C / 362 °F	183 °C / 362 °F

## Available Packaging



801B-125G  
Aerosol



801C-P



401B-140G 401B-340G  
Aerosol



404B-140G 404B-340G  
Aerosol



409B-140G 409B-340G  
Aerosol





## DRY WIPES



Great for wet or dry dusting and cleaning

### Features and Benefits:

- Strong and durable
- Solvent resistant
- Excellent absorbency and strength when cleaning up spills and cleaning solutions.
- Low to no-lint formation

### Applications:

- Controlled environments
- Clean rooms
- Offices
- Laboratories
- General surface cleaning
- Equipment cleaning

### We offer a choice of three types of Dry Wipes:

#### 828 - Optiwipes

General purpose wipes made of a soft, 100% hydroentangled polyester fiber recommended for cleaning lenses, precision instrumentation, and many other sensitive surfaces.

Cat. No	cm	in	Quantity
828-4x4	10.16 x 10.16	4 x 4	100

#### 8282 - Hydrowipes

General purpose, clean room wipes made of a hydroentangled blend of 55% cellulose and 45% polyester fibers. They are intended for use in clean rooms, offices, and laboratories.

Cat. No	cm	in	Quantity
8282-300	20.32 x 22.86	8 x 9	300

#### 829 - Twillwipes

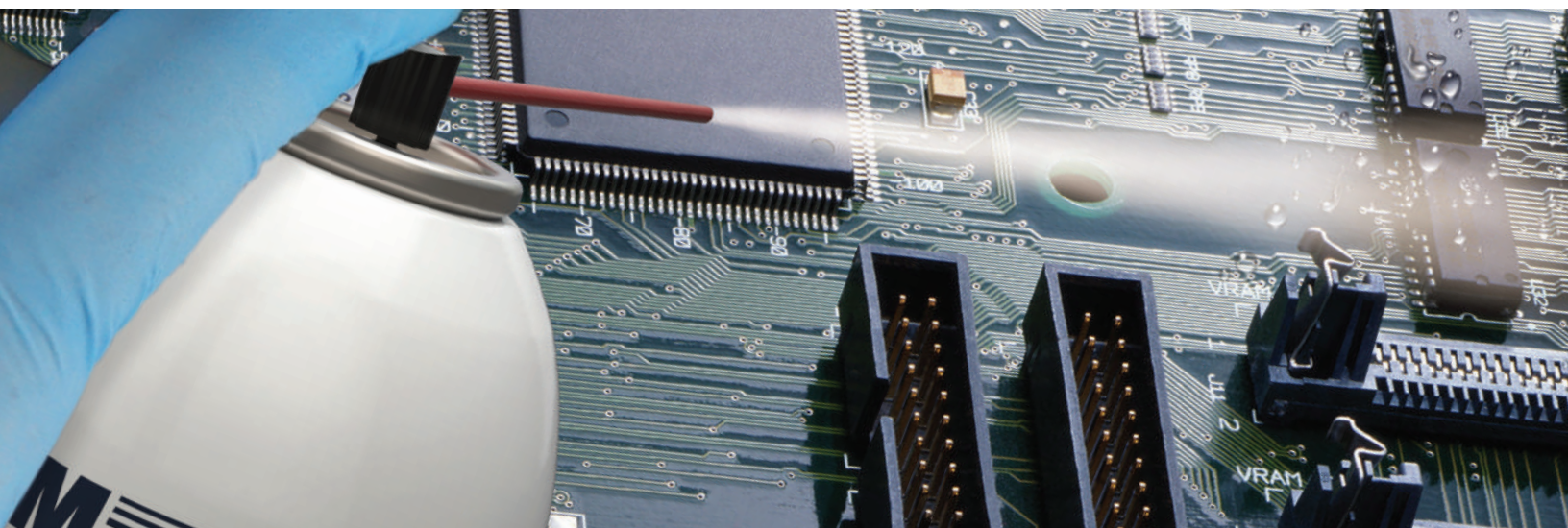
100% cotton in a tightly woven twill that effectively traps contamination. These wipes are lymanized, a cleaning treatment processed at a neutral pH without any starch or binders, to insure cleanliness and quality.

Cat. No	cm	in	Quantity
829-4x4	10.16 x 10.16	4x4	100





## ELECTRONICS CLEANERS - AEROSOL



### The right cleaning product for each application

#### **Features and Benefits:**

- Convenient aerosol packaging
- VOC free propellant
- CARB compliant
- Zero residue

#### **Applications:**

- Electronics maintenance and repair
- Post production PCB cleaning

#### **We offer a choice of five aerosol electronics cleaners:**

##### **824 - 450G - Isopropyl Alcohol**

99.95% pure isopropyl alcohol in aerosol format.

##### **406B - 425G Super Wash™ Aerosol**

A very fast drying, plastic-safe electronics cleaner.

##### **4050A - 450G Safety Wash™ II**

A blend of polar and non-polar plastic-safe cleaning solvents.

##### **4120 - 450G Super HFE™ Electronics Cleaner**

A non-flammable-aerosol cleaner with excellent cleaning strength.

##### **411 - 300G HFE Solvent**

A non-flammable, non-toxic and plastic safe cleaner degreaser. Suitable for use on energized circuits.



## Electronics Cleaners Comparison Chart

Cat. Number	824	4050A	406B	411	4120
<b>Cleaning Characteristics</b>					
PLASTIC SAFE	Yes	Yes	Yes	Yes	Test
FLAMMABLE	Yes	Yes	Yes	No	No
STRENGTH	Regular	Enhanced	Extra	Low	Extra
EVAPORATION	Moderate	Moderate	Fast	Fast	Fast
<b>Regulatory Status</b>					
NSF COMPLIANT	No	Yes	Yes	Yes	No
VOC FREE	No	No	No	Yes	Yes
<b>Physical Properties</b>					
FLASH POINT	12 °C / 54°F	-29 °C / -20 °F	-29 °C / -20 °F	None	None
BOILING POINT	81.8 °C / 179 °F	50 °C / 121 °F	50 °C / 121 °F	60 °C / 140 °F	40 °C / 104 °F
<b>Contaminants Cleaning Efficiency</b>					
NON-POLAR RESIDUES	Fair	Good	Good	Poor	Good
POLAR RESIDUES	Good	Good	Fair	Poor	Good
IONIC RESIDUES <small>water soluble</small>	Good	Good	Poor	Poor	Good
FLUX RESIDUES	Good	Good	Poor	Poor	Excellent
OILS	Good	Good	Good	Fair	Excellent
GREASES	Good	Good	Fair	Poor	Excellent
INKS	Fair	Good	Good	Poor	Good
DIRT & GRIMES	Good	Good	Good	Fair	Excellent

## Available Packaging



824-450G



4050A-450G



406B-425G

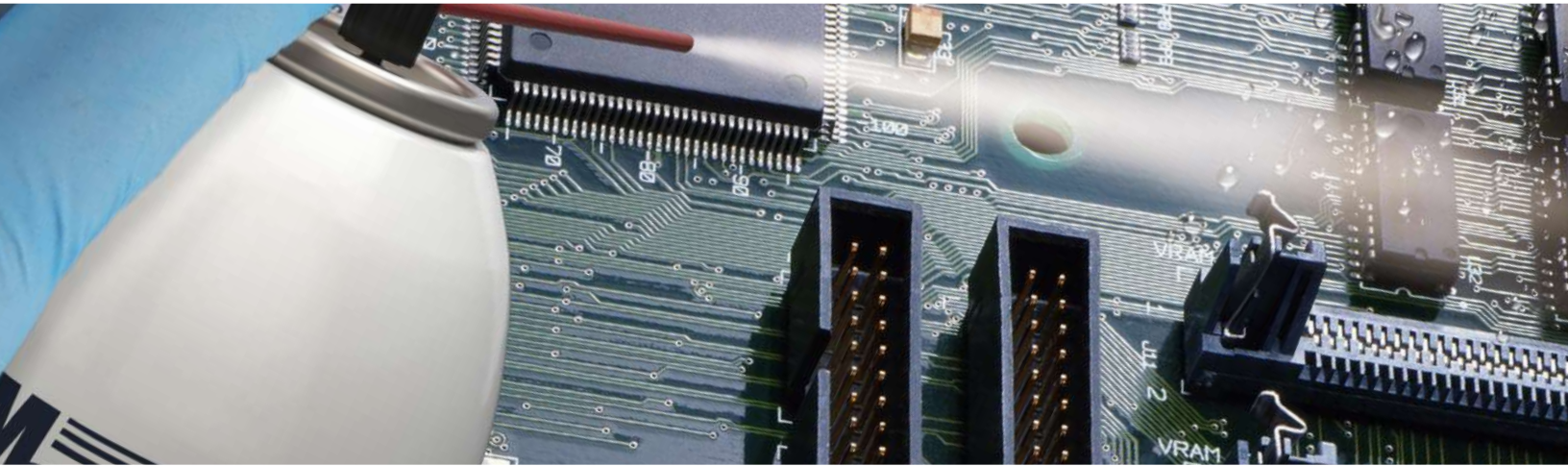


411-300G



4120-450G





## High Purity Electronics Cleaning Solvent

### Features & Benefits

- Safe on most plastics and elastomers
- Fast dry time
- Zero residue
- Low toxicity
- Low surface tension

### Applications

- Audio, video, magnetic, and optical heads
- Cables
- Electrical contacts and connectors
- Fiber optic connectors
- Optical equipment
- Precision instruments
- Printed circuit boards
- Production equipment and workstations
- Smartphones, pads, laptops, keyboards, and office equipment
- SMT stencils and screens
- Surfaces being prepared for coating application

**824 (liquid)** — 99.9% ACS reagent grade isopropyl alcohol, anhydrous

**8241 (liquid)** — 70% Isopropyl alcohol

**824-450G (aerosol)** — Isopropyl alcohol 99.9% IPA and HFC 152A propellant

**824-400ML (UK aerosol)** — Isopropyl alcohol 99.9% IPA and hydrocarbon propellant



Also available in 99.9% and 70% IPA Presaturated Wipes (Individually wrapped, or soft-pack and tub dispenser packaging).



# Isopropyl Alcohol



## PROPERTIES

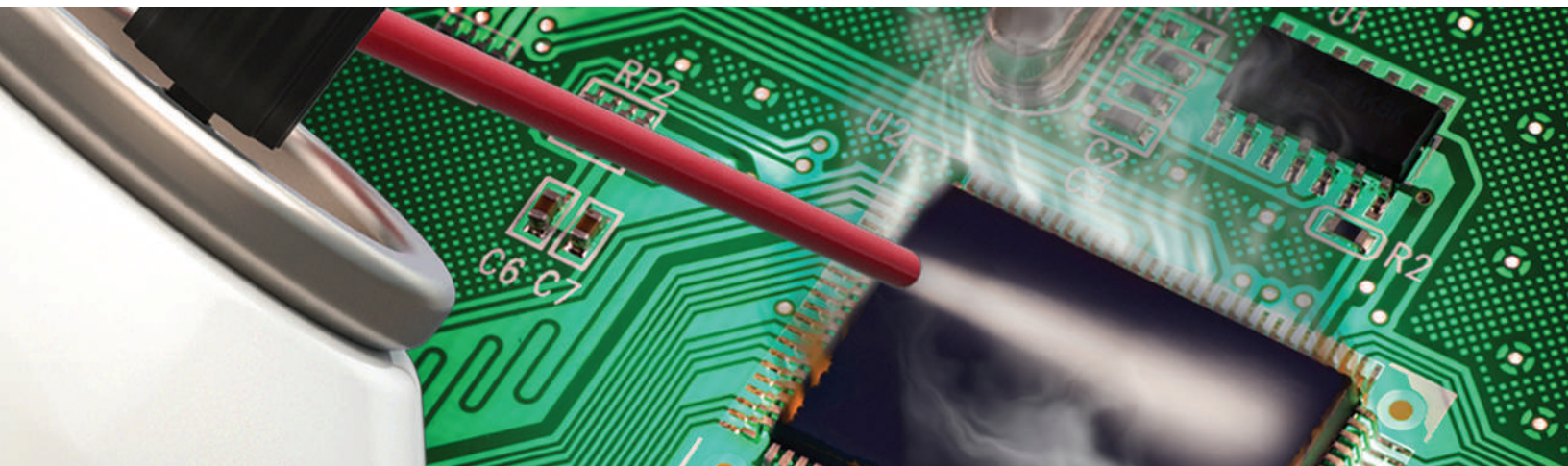
	824	8241	824-450G	824-400ML (UK)
Solution	99.9% IPA	70% IPA	99.9% IPA	99.9% IPA
Format	Liquid	Liquid	Aerosol	Aerosol
Plastics safe	Safe	Safe	Safe	Safe
Flammability	Highly flammable	Highly flammable	Highly flammable	Highly flammable
Strength	Regular	Regular	Regular	Regular
Evaporation	Moderate	Moderate	Moderate	Moderate
CARB compliant	Compliant	Compliant	Compliant	Compliant
NSF registered	Yes (#144029)	—	—	—
VOC free	—	—	—	—
Flash point	12 °C [54°F]	18 °C [65°F]	12 °C [54°F]	12 °C [54°F]
Boiling point	81.8 °C [179°F]	81 °C [177°F]	82 °C [180°F]	82 °C [180°F]
Non-polar residues	Good	Fair	Good	Good
Polar residues	Fair	Good	Fair	Fair
Ionic residues	Fair	Good	Fair	Fair
Flux residues	Good	Fair	Good	Good
Oils	Good	Fair	Good	Good
Greases	Fair	Fair	Fair	Fair
Inks	Fair	Fair	Fair	Fair
Dirt and grime	Fair	Fair	Fair	Fair

## AVAILABLE PACKAGING

Net contents	125 mL (bottle) 475 mL (spray bottle) 945 mL (bottle) 20 L (pail)	475 mL (spray bottle) 945 mL (bottle)	450 g (aerosol)	400 mL (aerosol)
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## Cold Spray



### Get to Super Cold, Super Fast

#### Features and Benefits:

- Safe for use on energized circuits
- Ozone safe
- Non-flammable
- Non-conductive
- Zero residue
- VOC exempt
- Suitable for Use in Food Facilities as a Non-Food Chemical

#### Applications:

- Diagnosing thermally intermittent problems
- Protecting heat sensitive components during soldering
- Remove gum and other adhesives from a variety of surfaces

#### 403A — Super Cold 134

A pure, non-flammable gas that is used primarily for diagnosing thermally intermittent problems with electronic devices.

The cold spray contains pure 1,1,1,2-tetrafluoroethane (HFC 134a).

Cat. No.	Net Volume	Net Weight
403A-285G	236 mL [7.98 fl oz]	285 g [10 oz]
403A-400G	332 mL [11.2 fl oz]	400 g [14.1 oz]



403A-285G



403A-400G



Nonfood Compounds  
Program Listed P1  
Registration #144073