Isopropyl Alcohol Wipe
99.9% Pure Anhydrous
824-W Technical Data Sheet

Description

The 824-W *Isopropyl Alcohol Wipe* is a high purity cleaner. The wipe is good at dissolving dirt, light organic contaminants, and ionic flux residues. Since the 824-W is highly anhydrous (without water) and hygroscopic (absorbs humidity), it readily scavenges water off surfaces and helps to dehumidify surfaces.

Applications & Usages

Since the 824 is safe for most plastics, seals, ceramics, and printed circuit board components, it is used heavily in the electronics industry. It is great for cleaning stencils, cables, printed circuit board components, or electrical contacts and connectors. It effectively removes light greases, oils, and flux without adding additional residues to contacts, relays, and circuit boards connectors. It is quick drying relative to water.

Features and Benefits

- Anhydrous solvent—Removes water and humidity from components leaving them dry
- Less than 0.001 g/100 mL non-volatile residues
- **Excellent "Green Solvent" scores**
- Safe for aqueous environments
- Low toxicity

ATTENTION! Consumer Product VOC Prohibition
For industrial and laboratory use only. Prohibited for consumer use in Canada and the USA.

Usage Parameters

Properties	*Value*
Shelf Life @22 °C [72 °F]	5 y

Temperature Ranges

Properties	*Value*
Storage Temperature Limits [a)]	-20 to 40 °C [-4 to 104 °F]

a) Store in cool, dry, and well-ventilated area.

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Properties

General Properties	*Method*	*Value*
Odor	—	Mild alcohol
Appearance	ASTM D 4176	Clear, free from sediment, and suspended matter
Color	Visual	Colorless
Refractive Index @20 °C [68 °F]	ASTM D 1218	1.37
Evaporation Rate	Literature	2.9 (ButAc =1)
Heat Capacity	"	11 400 kJ/m [0.612 BTU·in/h·ft2·°F]
Viscosity	"	3.4 cP

Physical Property	*Method*	*Value*
Purity	Gas chromatography	>99.8%
Water (w/w)	ASTM D 1364	≤0.10%
Color (Pt-Co scale)	ASTM D 1209	≤5
Acidity (% of acetic acid)	ASTM D 1613	≤0.001
Density @20 °C [68 °F]	ASTM D 4052	0.785—0.786 g/mL
Specific Gravity @20 °C	ASTM D 4052	0.785—0.787 g/mL
Dilution Range	ASTM D 1078	
Initial Boiling Point	"	≥81.8 °C
Dry Point	"	≥82.8 °C
Nonvolatile Matter	ASTM D 1353	≤0.001 g/100 mL
Water Miscibility	ASTM D 1772	Clear and miscible

Safety Properties	*Method*	*Value*
Flammability	Literature	Highly flammable liquid and vapor
Flash Point	"	12 °C [54 °F]
Boiling Point	"	82 °C [180 °F]
Auto-Ignition	"	425 °C [797 °F]
Volatile Organic Compound (VOC)	"	100%

Environmental Properties	*Method*	*Value*
Toxicity for Aqueous Environment	Literature	Very low toxicity
Biodegration	"	Readily biodegradable

Solvation Parameters	*Value*
Solubility in water (%wt)	∞ Fully Miscible
Solubility for water (%wt)	∞ Fully Miscible
Dielectric constant @20 °C [68 °F]	17.5
Surface Tension @25 °C [75 °F] (dynes/cm)	21.4

Note: Typical literature values

Compatibility

It is compatible with many plastics, seals, PCB components, paints, rubbers, and plant fibers.

Substrate Compatibility: Consult the 824-W compatibility chart for a tentative compatibility list. These compatibility ratings should be considered as tentative due to variations in plastic manufacturers' formulations and additives, as well as the processing conditions during cleaning.

ATTENTION! Always perform a compatibility test on a non-critical area or a representative test substrate prior to use. Test even if the compatibility chart predicts a high compatibility: modern parts may incorporate undeclared sensitive materials (such as custom plastic blends, custom additives, protective coatings, or decorative coatings).

824-W Plastics Compatibility Chart

Plastic type	*Resistance*
Epoxy	Excellent
ABS (acrylonitrile butadiene styrene)	Fair to Poor
PMMA (acrylic and plexiglass)	Poor
PVC (polyvinyl chloride)	Excellent
HD-PE (high density polyethylene)	Excellent
LD-PE (low density polyethylene)	Excellent
PP (polypropylene)	Excellent
PS (polystyrene)	Excellent
PC (polycarbonate)	Excellent
Nylon	Poor to Severe

Note: Rating is given for room temperature only. Heating the solution generally decreases the chemical resistance.

LEGEND
Excellent = Negligible chemical attack over long exposures
Good = Slight attack with minor absorption over long exposures
Fair = Moderate attack with swelling, softening, loss of strength (may tolerate short term exposures)
Poor = Not recommended due to possible crazing, cracking, discoloration, or loss of strength
Severe Effect = Decomposition or dissolution after short exposures

824-W Elastomers Compatibility Chart

Plastic type	*Resistance*
Nitrile	Good
Neoprene	Good
Silicone	Excellent
Butyl Rubber	Excellent
Latex	Excellent
PVC (polyvinyl chloride)	Good
Polyvinyl Alcohol	Severe Effect
Viton	Excellent

Note: Rating is given for room temperature only. Heating the solution generally decreases the chemical resistance.

ATTENTION! Do NOT use on computer monitors, tablet screens, or eyeglasses. This solvent is too powerful for the coatings used on these devices.

Health, Safety, and Environmental Awareness

Please see the 824-W Safety Data Sheet (SDS) for more details on transportation, storage, handling and other security guidelines.

Environmental Impact: The 824-W has a regulated volatile organic compound (VOC) content of 100% (785 g/L). Avoid runoff into storm and sewer drains. This product is biodegradable.

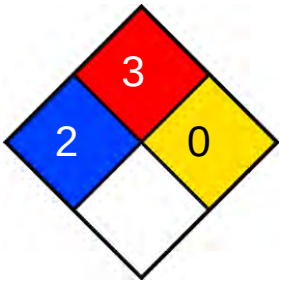
Health and Safety: Isopropyl alcohol wipe is flammable and shouldn't be used in the presence of open flames or other ignition source. Avoid prolonged breathing of vapors. Use with adequate ventilation.

NOTE: This product is not intended as a disinfectant for humans or animals. It was not treated to remove possible fungal spores or rare alcohol-resistant bacterial strains. Further, high purity anhydrous IPA is not an effective disinfectant.

HMIS® RATING

HEALTH:	2
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Packaging and Supporting Products

Cat. No.	*Packaging*	*Net Volume*		*Net Weight*		*Packaging Weight*	
824-WX25	Wipes	47 mL	1.6 fl oz	37 g	1.3 oz	3.0 kg [b]	6.6 lb
824-WX50	Wipes	95 mL	3.2 fl oz	75 g	2.7 oz	3.0 kg [b]	6.6 lb
824-WX500	Wipes	191 mL	6.5 fl oz	150 g	5.3 oz	3.0 kg [b]	6.6 lb
824-450G	Aerosol	553 mL	18.7 fl oz	450 g	14.5 oz	5.94 kg [a]	13.1 lb
824-100ML	Bottle	125 mL	4.2 fl oz	98 g	3.2 oz	1.3 kg [a]	2.9 lb
824-100MLCA	Bottle	125 mL	4.2 fl oz	98 g	3.2 oz	1.3 kg [a]	2.9 lb
824-500ML	Bottle	475 mL	16 fl oz	373 g	13 oz	4.5 kg [a]	10.0 lb
824-500MLCA	Bottle	475 mL	16 fl oz	373 g	13 oz	4.5 kg [a]	10.0 lb
824-1L	Bottle	945 mL	32 fl oz	742 g	1.64 lb	5.3 kg [c]	11.7 lb
824-1LCA	Bottle	945 mL	32 fl oz	742 g	1.64 lb	5.3 kg [c]	11.7 lb
824-4L	Jug	4 L	1.1 gal	3.14 kg	6.93 lb	3.7 kg	8.2 lb
824-20L	Pail	20 L	5.3 gal	15.7 kg	34.6 lb	19 kg	41.9 lb

a) Pack of 10
b) Box pack
c) Pack of 6

Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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Disclaimer

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