

Description

The 824 *Isopropyl Alcohol* (IPA) liquid is a high purity, multipurpose cleaner and solvent. The purity level meets *Grade A* standard for **MIL Spec TT-I-735** and **ASTM D770**, ensuring that no contaminations are left behind when used as a cleaner or solvent.

As a cleaner, it is fully miscible in water and most organic fluids, making it good at dissolving dirt and light organic contaminants, and ionic flux residues. Since the 824 is anhydrous (without water), it scavenges water off surfaces, trapping the water in the IPA solution as an azeotropic mixture. This helps to dry surfaces thoroughly.

As a solvent, it acts as a moderate evaporation, plastic safe diluent used to improve the properties of paint resins and other heterogeneous solid mixtures. It, therefore, serves as useful carrier solvent to adjust the rheological properties and compatibilities of complex mixture. Due to IPA's volatility, it resists entrapment in the coating. As it dries, it gives off a very light odor, which is not bothersome but serves as a cue to limit over-exposure due to poor ventilation.

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 or coating of screens, stencils, fiber optics, cables, keypads, and particularly printed circuit board components. It is also used to clean oxides and grime on audio or video tape heads. 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. Further, it can be used to wash off more aggressive organic solvents like acetone or toluene.

Storage Properties

| <i>Properties</i> | <i>Value</i> |
|-----------------------------------|-------------------------------|
| Shelf Life @ 23 °C [73 °F] | Indefinite |
| Storage Temperature ^{a)} | -20 to 40°C [32 to 104 °F] |

a) Storage below zero is not necessary. Cool, dry, and well ventilated area recommended.

Mil Spec #TT-I-735

| <i>Physical Property</i> | <i>Method</i> | <i>Grade A Specifications</i> |
|---------------------------------|--------------------|---|
| 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 | ASTM D 4052 | 0.785—0.786 g/mL |
| Specific gravity @20 °C / 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 |
| Appearance | ASTM D 4176 | Clear & free from sediment and suspended matter |

Properties

| <i>Physical Property</i> | <i>Method</i> | <i>Value</i> |
|--------------------------|---------------|---|
| Odor | — | Mild alcohol |
| Color | Visual | colorless |
| Refractive Index @20 °C | ASTM D 1218 | 1.3766 |
| Flash Point | Literature | 12 °C [54 °F] |
| Boiling Point | Literature | 82 °C [180 °F] |
| Auto-ignition | Literature | 425 °C [797 °F] |
| Heat Capacity | Literature | 11 400 kJ/m [0.612 BTU·in/h·ft ² ·°F] |
| Viscosity | Literature | 3.4 cP |

Compatibility

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

Health, Safety, and Environmental Awareness

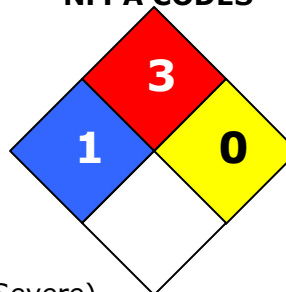
Please see the 824 **Material Safety Data Sheet** (MSDS) for more details on transportation, storage, handling and other security guidelines.

Environmental Impact: The 824 has a high volatile organic content of 100%. Avoid runoff into storm and sewer drains. This product is biodegradable.

HMIS RATING

| | |
|-----------------------------|----------|
| HEALTH: | 1 |
| FLAMMABILITY: | 3 |
| PHYSICAL HAZARD: | 0 |
| PERSONAL PROTECTION: | 0 |

NFPA CODES



Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Health and Safety: Isopropyl alcohol solution is flammable and shouldn't be used in the presence of open flames or other ignition source. Keep container closed. 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.



ISO 9001 Registered Quality System.
Burlington, Ontario, Canada QMI File # 004008

Isopropyl Alcohol Electronic Cleaner; 99.9% Pure, Anhydrous 824 Technical Data Sheet

824-Liquid

Application Instructions

Follow the procedure below for best results.

To clean residues

1. Imbibe clean cloth.
2. Wipe surface to be cleaned with cloth.
OR
3. Immerse component in a container filled with 824 solution.

WARNING! The 824 is hygroscopic, which means it can absorb moisture from air. Recap the bottle immediately after use to avoid moisture absorption.

Packaging and Supporting Products

| <i>Cat. No.</i> | <i>Form</i> | <i>Net Volume</i> | | <i>Net Weight</i> | | <i>Shipping Weight</i> | |
|------------------|-------------|-------------------|------------|-------------------|---------|------------------------|---------|
| 824-WX25 | Wipes | 47 mL | 1.6 fl oz | 37 g | 1.3 oz | 3.0 kg ^{a)} | 6.6 lb |
| 824-WX50 | Wipes | 95 mL | 3.2 fl oz | 75 g | 2.7 oz | 3.0 kg ^{a)} | 6.6 lb |
| 824-WX500 | Wipes | 191 mL | 6.5 fl oz | 150 g | 5.3 oz | 3.0 kg ^{a)} | 6.6 lb |
| 824-100ML | Liquid | 125 mL | 4.2 fl oz | 102 g | 3.4 oz | 1.5 kg ^{b)} | 3.3 lb |
| 824-500ML | Liquid | 500 mL | 16.9 fl oz | 393 g | 13.9 oz | 4.5 kg ^{b)} | 9.5 lb |
| 824-1L | Liquid | 1 L | 0.27 gal | 786 g | 1.74 lb | 5.5 kg ^{c)} | 12.1 lb |
| 824-4L | Liquid | 3.78 L | 1.1 gal | 3.2 kg | 6.9 lb | 3.8 kg ^{d)} | 8.4 lb |
| 824-1G | Liquid | 4 L | 1.0 gal | 3.0 kg | 6.6 lb | 14 kg ^{e)} | 31 lb |
| 824-20L | Liquid | 20 L | 5.4 gal | 15.9 kg | 35.1 lb | 18 kg ^{d)} | 40 lb |

- a) Box pack
b) Pack of 10
c) Pack of 6
d) Each
e) Pack of 4



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824-Liquid

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.

Email: support@mgchemicals.com

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1-905-331-1396 Ext. 30 (International)

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Warranty

M.G. Chemicals Ltd. warrants this product for 12 months from the date of purchase by the end user. M.G. Chemicals Ltd. makes no claims as to shelf life of this product for the warranty. The liability of M.G. Chemicals Ltd. whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

Disclaimer

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