

ISOPROPYL ALCOHOL: ELECTRONICS CLEANER

824-WIPES

# Safety Data Sheet

## Section 1: Product and Company Identification

### Product Identifier and Other Means of Identification

**Product Name:** Isopropyl Alcohol: Electronics Cleaner**SDS Code:** 824-Wipes**Related Part #:** 824-WX25, 824-WX50, 824-WX500

### Recommended Use and Restriction on Use

**Use:** Cleaning wipes for electronics and high technology components**Uses Advised Against:** Not for use on monitor screens or glass with anti-glare coatings

### Details of Manufacturer or Importer

#### Manufacturer

MG Chemicals  
1210 Corporate Drive  
Burlington, Ontario L7L 5R6  
CANADA

MG Chemicals (Head Office)  
9347-193 Street  
Surrey, British Columbia V4N 4E7  
CANADA

**☎** +1-800-340-0772**☎** +1-905-331-1396**FAX** +1-800-340-0773**FAX** +1-905-331-2682**E-MAIL:** [support@mgchemicals.com](mailto:support@mgchemicals.com)**E-MAIL:** [info@mgchemicals.com](mailto:info@mgchemicals.com)**WEB** [www.mgchemicals.com](http://www.mgchemicals.com)**E-MAIL** (Competent Person): [sds@mgchemicals.com](mailto:sds@mgchemicals.com)

### Emergency Phone Number

**For hazardous material incidents ONLY**—leaks, spills, fires, exposures or accidentsUSA or CANADA: Call CHEMTREC ☎: **+1-800-424-9300****For emergencies involving dangerous goods;** Collect 24/7CANADA: Call CANUTEC ☎: **+1-613-996-6666** or **\*666** on cellular phones

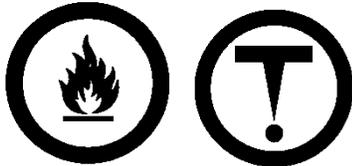
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**Section 2: Hazards Identification**

**Classification of Hazardous Chemical**

**WHMIS Classification**



B2 – Flammable Liquid; D2B – Toxic Material (Eye Irritant)

**GHS Categories**

Criteria	Category	Signal Word	Pictograms
Flammable Liquid	2	Danger	Flame
Eye irritation	2A	Warning	Exclamation
Specific Target Organ Toxicity    Single Exposure	3	Warning	Exclamation

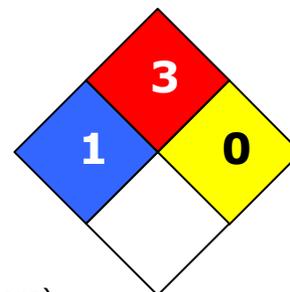
*Note:* The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity). Severity categories do not allow comparisons between classes.

**Other Classifications**

**HMIS® RATING**

<b>HEALTH:</b>	<b>2</b>
<b>FLAMMABILITY:</b>	<b>3</b>
<b>PHYSICAL HAZARD:</b>	<b>0</b>
<b>PERSONAL PROTECTION:</b>	

**NFPA® 704 CODES**



*Approximate HMIS and NFPA Risk Ratings Legend:*

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

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**Label Elements**

<b>Signal Word</b>	<b>DANGER</b>
<b>Pictograms</b>	<b>Hazard Statements</b>
	H225: Highly flammable liquid and vapor
	H319: Causes serious eye irritation H336: May cause drowsiness and dizziness
<b>Prevention</b>	<b>Precautionary Statements</b>
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P264	Wash hands thoroughly after handling.
P261	Avoid breathing vapors.
P280	Wear protective gloves.
P271	Use only outdoors or in well ventilated area.
<b>Response</b>	<b>Precautionary Statements</b>
P370 + P378	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
P302 + P353	IF ON SKIN: Rinse skin with water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
<b>Storage</b>	<b>Precautionary Statements</b>
P403 + P235	Store in well ventilated place. Keep cool.
<b>Disposal</b>	<b>Precautionary Statements</b>
P501	Dispose of contents/container in accordance to local/regional/international regulations.

**Other Hazards**

Prolonged or repeated exposure may cause skin dryness or cracking

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**Section 3: Hazardous Ingredients**

CAS #	Chemical Name	Wt%
67-63-0	propan-2-ol <sup>a)</sup>	99.7%

a) Commonly known as isopropyl alcohol (IPA)

**Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code: Precautionary Statement</i>
<b>IF IN EYES</b>	P305 + P351 + P338, P337 + P313
<b>Immediate Symptoms</b>	<i>irritation, tearing, redness, pain</i>
<b>Response</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>If eye irritation persists</b>	Get medical advice/attention.
<b>IF ON SKIN (or hair)</b>	P302 + P353
<b>Immediate Symptoms</b>	<i>dry skin, redness</i>
<b>Response</b>	Rinse skin with water. Take off contaminated clothing and wash it before reuse.
<b>IF INHALED</b>	P304 + P340 + P312 <i>(Not a likely route of exposure under normal use)</i>
<b>Immediate Symptoms</b>	<i>cough, dizziness, drowsiness, headaches, weakness, unconsciousness</i>
<b>Response</b>	Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing.
<b>If feeling unwell</b>	Call a POISON CENTRE/doctor.
<b>IF SWALLOWED</b>	P301 + P330 + P331 <i>(Not a likely route of exposure under normal use)</i>
<b>Immediate Symptoms</b>	<i>nausea, headaches, dizziness, weakness, unconsciousness</i>
<b>Response</b>	Rinse mouth. Do NOT induce vomiting.

**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****824-WIPES****Section 5: Fire-Fighting Measures**

<b>Auto-ignition Temperature</b> <sup>a)</sup>	425 °C [797 °F]	<b>Flash Point</b> <sup>a)</sup>	12 °C [54 °F]	<b>LFL [LEL]</b>	2%
				<b>UFL [UEL]</b> <sup>b)</sup>	12%

**In case of fire** P370 + P378

**Response** Use dry chemical, carbon dioxide, water fog, or chemical foam to extinguish. Use water spray to cool containers.

**Combustion Products** Produces carbon oxides (CO, CO<sub>2</sub>)

**Fire-Fighter** Wear self-contained breathing apparatus for fire fighting

**General Information** Vapors may accumulate in low-lying areas. They can cause flash fire or ignite explosively. In extreme firefighting conditions, this product may form a floating fire hazard.

a) Auto-ignition and flash point (Tag closed cup) values based on propan-2-ol literature value

b) LFL = Lower Flammability [or Explosion] Limit (in volume %);  
UFL = Upper Flammability [or Explosion] Limit (in volume %)

**Section 6: Accidental Release Measures**

**Personal Protection** See Section 8. Avoid breathing the mist/vapors.

**Containment** Remove all sources of ignition.

Prevent spill from entering drains and waterways.

**Cleaning** Collect liquid in a sealable, solvent-resistant container. Wipe up further residue with paper towel and place dirty towels in container. Wash spill area with soap and water to remove the last traces of residue.

**RECOMMENDATION:** Use a grounded stainless steel or carbon steel container or a solvent resistant plastic container.

**Disposal** Dispose of spill waste according to Section 13.

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**Section 7: Handling and Storage**

- Prevention**      Keep out of reach of children.  
                          Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
                          Avoid breathing vapors. Use only outdoors or in a well-ventilated area.
- Handling**        Wear protective gloves.  
                          Wash hands thoroughly after handling.
- Storage**           Store in a well-ventilated area. Keep cool.
- RECOMMENDATION:** Keep in a dry and clean area, away from incompatible substances.

**Section 8: Exposure Controls/Personal Protection**

**Routes of Entry**

Eyes, ingestion, inhalation, and skin

**Substances with Occupational Exposure Limit Values**

Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
propan-2-ol	ACGIH	200 ppm (TWA)	400 ppm
	U.S.A. OSHA PEL	400 ppm	—
	Canada AB	200 ppm	400 ppm
	Canada BC	200 ppm	400 ppm
	Canada ON	200 ppm	400 ppm
	Canada QC	400 ppm	500 ppm

*Note:* Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH<sup>1</sup>, OSHA, and Canadian provinces exposure limits were consulted. Limits from by RTECS database<sup>2</sup> of the Canadian Centre for Occupational Health and Safety (CCOHS) a data from suppliers' SDS were also consulted. Short term exposure limits (STEL) are usually for 15 min and long term permissible exposure limits (PEL) for 8 h.

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****824-WIPES****Engineering Controls**

**Ventilation** Keep airborne concentrations below exposure limits.

**Personal Protective Equipment**

**Eye protection** Wear appropriate protective eyeglasses or chemical safety goggles.

**RECOMMENDATION:** Use safety glasses with lateral protection (side shields).

**Skin Protection** Wear appropriate protective clothing to prevent skin contact.

**RECOMMENDATION:** Use of protective gloves in butyl rubber, nitrile rubber, or other chemically resistant gloves.

**Respiratory Protection** If exposed to vapor above exposure threshold, wear a respirator such as a half-mask respirator with organic vapor cartridges.

**RECOMMENDATION:** Consult your local safety supply store to ensure your respirator has filter cartridges appropriate for the ingredients listed in section 3 of this MSDS, and that the respirator is fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

**General Hygiene Considerations**

Wash hands thoroughly with water and soap after handling.

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**Section 9: Physical and Chemical Properties**

<b>Physical State</b>	Liquid	<b>Appearance</b>	Colorless
<b>Odor</b>	Alcohol like	<b>Odor Threshold</b>	Not available
<b>pH</b>	Not available	<b>Specific Gravity @23 °C</b>	0.785
<b>Solubility in Water</b>	Fully miscible	<b>Freezing/Melting Point</b>	-88 °C [-126 °F]
<b>Flash Point <sup>a)</sup></b>	12 °C [54 °F]	<b>Vapor Pressure @ 20 °C</b>	4.2 kPa [32 mmHg]
<b>Boiling Point</b>	≥81.8 °C [≥179 °F]	<b>Evaporation Rate</b>	1.5 (ButAc = 1)
<b>Lower Flammability Limit</b>	2%	<b>Upper Flammability Limit</b>	12%
<b>Auto-ignition Temperature <sup>b)</sup></b>	425 °C [797 °F]	<b>Decomposition Temperature</b>	Not available
<b>Viscosity @20 °C</b>	2.4 mPa·s [3.1 cSt]	<b>Vapor Density</b>	≥1.6
<b>Partition Coefficient</b>	Not established		

a) Tag closed cup value

**Section 10: Stability and Reactivity**

<b>Stabilities</b>	Chemically stable at normal temperatures and pressures
<b>Conditions to Avoid</b>	Ignition sources, excessive heat, and incompatible substances. Vapors may form explosive mixture with air.
<b>Incompatibilities</b>	Strong oxidizing agents, strong acids, strong bases, halogenated compounds, aluminum at temperatures ≥ 49 °C [>120 °F]
<b>Polymerization</b>	Will not occur
<b>Decomposition</b>	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5

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**Section 11: Toxicological Information**

**Routes of Exposure**

Eyes, ingestion, inhalation, and skin

**Symptoms Summary**

- Eyes** Causes serious eye irritation, tearing, redness or pain.
- Skin** Cause dry skin and redness.
- Inhalation** May cause drowsiness or dizziness. Excessive exposure may cause narcotic effects, weakness, headaches, and unconsciousness.
- Ingestion** May be harmful if swallowed. See inhalation symptoms.
- Chronic** Prolonged or repeated exposure may defat skin and cause skin dryness and cracking, and local redness and discomfort.

**Acute Toxicity (Lethal Exposure Concentrations)**

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation	TCLo inhalation
isopropyl alcohol	3 600 mg/kg Rat	12 800 mg/kg Rabbit	16 000 ppm 8 h Rat	35 ppm Human

*Note:* Representative toxicity data from by RTECS database of the Canadian Centre for Occupational Health and Safety (CCOHS)<sup>2</sup> data from supplier MSDS were also consulted.

- Skin corrosion/irritation** Causes mild skin irritation based on Draize tests on rabbits. Prolonged or repeated skin contact may cause dermatitis
- Serious eye damage/irritation** Causes moderate to severe eye irritation based on Draize tests on rabbits
- Sensitization (allergic reactions)** No evidence of sensitization
- Carcinogenicity (risk of cancer)** Not classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP
- Mutagenicity (risk of heritable genetic effects)** No data available
- Reproductive Toxicity (risk to sex functions)** No data available

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<b>Teratogenicity</b> (risk of fetus malformation)	No data available
<b>STOT-single exposure</b>	Propan-2-ol can affect the central nervous system by inhalation causing drowsiness or dizziness.
<b>STOT-repeated exposure</b>	No data available
<b>Aspiration hazard</b>	Not classified as Cat 1 aspiration hazards, so no labeling mandated. It does, however, meet the criteria for a Cat 2 aspiration hazard, which may be harmful if swallowed and enters airways.

**Section 12: Ecological Information**

The ecotoxicity of the mixture was estimated by the calculation method using the summation of classified ingredients. The IMDG Code criteria and the raw-material MSDS along with supporting data for the classification of registered substances from the European Chemical Agency database (<http://echa.europa.eu>) were used.

The 2-propanol component is not classifiable as an environmental toxicant (with minimal LC50 of 9,640 mg/L 96 h for *Pimephales promelas* (fathead minnow); 5,102 mg/L 24 h *Daphnia magna* (water flea); >2,000 mg/L 24 h *Pseudokirchneriella subcapitata* (green algae)).

**Acute Ecotoxicity**

Available toxicity data does not meet classification thresholds

**Chronic Ecotoxicity**

Available toxicity data does not meet classification thresholds

**Biodegradability**

Not available

**Other Effects**

Regulated Volatile Organic Content (VOC) = 100% (785 g/L)

**Section 13: Disposal Information**

Dispose of contents in accordance with all local, regional, national, and international regulations.

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**Section 14: Transport Information**

**Ground**

**Refer to TDG regulations** (Canadian Transportation of Dangerous Goods regulations);  
**USA CFR 49 Regulations** (Parts 100 to 185).

Sizes 1 liter and under

**Limited Quantity**



Sizes greater than 1 liter

**UN number:** UN3175

**Shipping Name:** SOLIDS CONTAINING  
FLAMMABLE LIQUIDS, N.O.S. (isopropanol)

**Class:** 4.1

**Packing Group:** II

**Marine Pollutant:** No

**Air**

Sizes 10 mL or under

Use S.P. A46

NOTE: **Net Fill** of 2 ml per  
packet for part # 824-WX25,  
824-WX50, and 824WX500

**UN number:** UN3175

**Shipping Name:** SOLIDS CONTAINING FLAMMABLE  
LIQUIDS, N.O.S. (isopropanol)

**Class:** 4.1

**Packing Group:** II

**Marine Pollutant:** No

**Special Provision A46:** Mixtures of solids which are not subject to these Regulations and flammable liquids may be transported under this entry without first applying the classification criteria of Division 4.1, providing there is no free liquid visible at the time the substance is packaged and the packaging must pass a leakproofness test at the Packing Group II level. Small inner packagings consisting of sealed packets or articles containing less than 10 mL of a Packing Group II or III flammable liquid absorbed into a solid material are not subject to these Regulations provided there is no free liquid in the packet or article.

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****824-WIPES****Sea****Refer to IMDG regulations.**

Sizes 1 liter and under

**Limited Quantity**

Sizes greater than 1 liter

**UN number:** UN3175**Shipping Name:** SOLIDS CONTAINING  
FLAMMABLE LIQUIDS, N.O.S. (isopropanol)**Class:** 4.1**Packing Group:** II**Marine Pollutant:** No

**Note: Shipper must be appropriately trained and certified before involvement with the transport of dangerous goods.**

**Section 15: Regulatory Information****Canada****Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

All hazardous ingredients are listed on the DSL/NDSL.

**Industry and Science Canada**

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

**Health Canada**

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling Regulations.

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****824-WIPES****USA****CAA** (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

**EPCRA** (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains up to  $\geq 99.7\%$  propan-2-ol (CAS # 67-63-0) which is subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

**TSCA** (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

**California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity, Sept 2, 2011 revision, USA).

This product does not contain any of the listed substances.

**Europe****RoHS**

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

**WEEE**

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

**Section 16: Other Information**

<b>MSDS Prepared by</b>	Michel Hachey
<b>Date of Revision</b>	09 January 2014
<b>Supersedes</b>	25 April 2012
<b>Reason for Changes:</b>	Change to GHS classification and format

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****824-WIPES****References**

- 1) ACGIH 2013 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2013).
- 2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®), MDL Information Systems, Inc.

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
NOELR	No observable effect loading ratio
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
PEL	Permissible Exposure Limit
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

**Technical Queries** Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at [www.mgchemicals.com](http://www.mgchemicals.com).

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