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ISOPROPYL ALCOHOL: ELECTRONICS CLEANER

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Name:** Isopropyl Alcohol: Electronics Cleaner**Other Means of Identification:** 824**Related Part #** 824-100ML, 824-500ML, 824-1L, 824-4L, 824-20L, 824-205L, 824-1G, 824-100MLCA, 824-1LCA, 824-500MLCA

### Recommended Use and Restriction on Use

**Use:** Cleaner for electronics**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  
CANADAMG Chemicals (Head Office)  
9347-193 Street  
Surrey, British Columbia V4N 4E7  
CANADA**☎** +1-800-340-0772**FAX** +1-800-340-0773**E-MAIL** [support@mgchemicals.com](mailto:support@mgchemicals.com)**WEB** [www.mgchemicals.com](http://www.mgchemicals.com)**☎** +1-905-331-1396**FAX** +1-905-331-2682**E-MAIL** [info@mgchemicals.com](mailto:info@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 accidents)  
USA or CANADA—Call CHEMTREC at **+1-800-424-9300****For emergencies involving the transport of dangerous goods;** 24/7 service  
CANADA—Call CANUTEC collect at **+1-613-996-6666** or **\*666** on cellular phones

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER**
**Section 2: Hazard(s) Identification**
**Classification of Hazardous Chemical**
**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 rankings do not allow comparisons between classes.

**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 or dizziness
<b>Prevention</b>	<b>Precautionary Statements</b>
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, and lighting equipment.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapors and mist.
P271	Use only outdoors or in well-ventilated area.

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<b>Prevention</b>	<b>Precautionary Statements</b>
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves, protective clothing, eye protection, and face protection.
<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.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower).
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 or attention.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE or doctor if you feel unwell.
<b>Storage</b>	<b>Precautionary Statements</b>
P403 + P235	Store in well-ventilated place. Keep cool.
P405	Store locked up.
<b>Disposal</b>	<b>Precautionary Statements</b>
P501	Dispose of contents in accordance to local, regional, and international regulations.

**Hazards Not Otherwise Classified**

<b>Other Criteria</b>	<b>Hazard Statements/Precautionary Statement</b>	<b>Signal Word</b>	<b>Pictograms</b>
Defats skin	Repeated exposure may cause skin dryness or cracking.	None	None

**Section 3: Composition/Information on Ingredients**

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

a) Commonly known as isopropyl alcohol (IPA)

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code: Precautionary Statement</i>
<b>IF ON SKIN (or hair)</b>	P303 + P361 + P353
<b>Immediate Symptoms</b>	<i>dry skin, redness</i>
<b>Response</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower).
<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. If eye irritation persists: Get medical advice or attention.
<b>IF INHALED</b>	P304 + P340 + P312
<b>Immediate Symptoms</b>	<i>cough, dizziness, drowsiness, headaches, weakness, unconsciousness</i>
<b>Response</b>	Remove person to fresh air and keep comfortable for breathing. If feeling unwell: Call a POISON CENTRE or doctor.
<b>IF SWALLOWED</b>	P301 + P330 + P331
<b>Immediate Symptoms</b>	<i>nausea, headaches, dizziness, weakness, unconsciousness</i>
<b>Response</b>	Rinse mouth. Do NOT induce vomiting.

**Section 5: Fire-Fighting Measures**

<b>Response</b>	In case of fire: Use dry chemical, carbon dioxide, water fog, or chemical foam to extinguish. Use water spray to cool containers.
<b>Specific Hazards</b>	Vapor may accumulate in low-lying areas. It can cause flash fire or ignite explosively.
<b>Combustion Products</b>	Produces carbon oxides (CO, CO <sub>2</sub> )
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****Section 6: Accidental Release Measures**

<b>Personal Protection</b>	Use personal protection recommended in Section 8.
<b>Precautions for Response</b>	Remove all sources of ignition. Avoid breathing the vapors/mist. Do not flush to sewer.
<b>Environmental Precautions</b>	Avoid releasing to the environment.
<b>Containment Methods</b>	Contain with inert absorbent (such as soil, sand, vermiculite).
<b>Cleaning Methods</b>	Collect liquid in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wash spill area with water.
<b>Disposal Methods</b>	Dispose of spill waste according to Section 13.

**Section 7: Handling and Storage**

<b>Prevention</b>	Keep away from children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. For metal containers, ground or bond container and receiving equipment. Take precautionary measures against static discharge. Use explosion-proof electrical, ventilating, and lighting equipment. Avoid breathing mist or vapors. Use only outdoors or in well-ventilated area. Keep container tightly closed.
<b>Handling</b>	Wear protective gloves, protective clothing, and eye protection. Wash hands thoroughly after handling.
<b>Storage</b>	Store in a well-ventilated area. Keep cool. Store locked up.

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

**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	Not established
	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:* The ACGIH<sup>1</sup>, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS database<sup>2</sup> and from suppliers' SDSs were also consulted. Short term exposure limits (STEL) are usually for 15 min and long term permissible exposure limits (PEL) for 8 h.

**Engineering Controls**

**Ventilation** Keep airborne concentrations below the occupational exposure limits (OEL).

**Personal Protective Equipment**

**Eye protection** Wear appropriate protective eyeglasses or chemical safety goggles.  
**RECOMMENDATION:** Use safety glasses with lateral protection (side shields).

**Skin Protection** For likely contacts, use of protective butyl rubber, nitrile, neoprene, polyethylene gloves or other chemically resistant gloves.  
For incidental contacts, use disposable nitrile or neoprene gloves, or other chemically resistant gloves.  
Do NOT use latex rubber, polyvinyl alcohol (PVA) or PVC gloves.

**Respiratory Protection** For over-exposures up to 10 x OEL of mist, vapors, and spray, wear respirator such as a half-mask respirator with organic vapor cartridges.  
Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.

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**RECOMMENDATION:** Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be 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.

**Section 9: Physical and Chemical Properties**

<b>Physical State</b>	Liquid	<b>Lower Flammability Limit</b>	2%
<b>Appearance</b>	Colorless	<b>Upper Flammability Limit</b>	12%
<b>Odor</b>	Alcohol like	<b>Vapor Pressure @20 °C</b>	4.2 kPa [32 mmHg]
<b>Odor Threshold</b>	0.44 ppm	<b>Vapor Density</b>	2.1 (Air = 1)
<b>pH</b>	Not available	<b>Relative Density @25 °C</b>	0.785
<b>Freezing/Melting Point</b>	-88 °C [-126 °F]	<b>Solubility in Water</b>	Fully miscible
<b>Initial Boiling Point</b>	≥81.8 °C [≥179 °F]	<b>Partition Coefficient-octanol/water</b>	Not available
<b>Flash Point <sup>a)</sup></b>	12 °C [54 °F]	<b>Auto-ignition Temperature</b>	425 °C [797 °F]
<b>Evaporation Rate</b>	1.5 (ButAc = 1)	<b>Decomposition Temperature</b>	Not available
<b>Flammability (solid, gas)</b>	Not available	<b>Viscosity @20 °C</b>	2.4 mPa· [3.1 mm <sup>2</sup> /s]

a) Tag closed cup value

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER**

**Section 10: Stability and Reactivity**

<b>Reactivity</b>	At elevated temperatures, may react with aluminum and generate hydrogen gas.
<b>Chemical Stability</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 $\geq 49\text{ }^{\circ}\text{C}$ [ $>120\text{ }^{\circ}\text{F}$ ]
<b>Polymerization</b>	Will not occur
<b>Decomposition</b>	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

**Section 11: Toxicological Information**

**Summary of Effects and Symptoms by Routes of Exposure**

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

**Acute Toxicity (Lethal Exposure Concentrations)**

<b>Chemical Name</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50 inhalation</b>
propan-2-ol	3 600 mg/kg Rat	12 800 mg/kg Rabbit	16 000 ppm 8 h Rat

*Note:* Toxicity data from the RTECS<sup>2</sup> and ECHA databases were consulted. The data from supplier (M)SDSs were also consulted.

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**824****ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****Other Toxicological Effects**

<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.
<b>Serious eye damage/irritation</b>	Propan-2-ol causes moderate to severe eye irritation based on Draize tests on rabbits.
<b>Sensitization</b> (allergic reactions)	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b> (risk of cancer)	Not classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.
<b>Mutagenicity</b> (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
<b>Reproductive Toxicity</b> (risk to sex functions)	Based on available data, the classification criteria are not met.
<b>Teratogenicity</b> (risk of fetus malformation)	Based on available data, the classification criteria are not met.
<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>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Not classified as Cat 1 aspiration hazards, so no labeling mandated. It meet the criteria for a Cat 2 aspiration hazard, which may be harmful if swallowed and enters airways.

**824****ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****Section 12: Ecological Information**

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable sources.

The propan-2-ol component is not classifiable as an environmental toxicant with a minimal LC50 96 h of 9 640 mg/L for *Pimephales promelas* (fathead minnow); EC50 24 h of 5 102 mg/L for *Daphnia magna* (water flea); EC50 24 h of >2 000 mg/L for *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 Compounds (VOC) content according to the US (EPA) and Canadian (CEPA) authorities.

Regulated Volatile Organic Compound (VOC) content = 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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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER**

**Section 14: Transport Information**

**Ground**

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

Sizes 1 L and under

**Limited Quantity**



Sizes greater than 1 L

**UN number:** UN1219  
**Shipping Name:** ISOPROPANOL  
**Class:** 3  
**Packing Group:** II  
 Marine Pollutant: No



**Air**

**Refer to ICAO-IATA Dangerous Goods Regulations.**

Sizes 1 L and under

**Limited Quantity**



Sizes up to 5 L (passenger), 60 L (cargo)

**UN number:** UN1219  
**Shipping Name:** ISOPROPANOL  
**Class:** 3  
**Packing Group:** II  
 Marine Pollutant: No



**Sea**

**Refer to IMDG regulations.**

Sizes 1 L and under

**Limited Quantity**



Sizes greater than 1 L

**UN number:** UN1219  
**Shipping Name:** ISOPROPANOL  
**Class:** 3  
**Packing Group:** II  
 Marine Pollutant: No



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

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**ISOPROPYL ALCOHOL: ELECTRONICS CLEANER**

**Section 15: Regulatory Information**

**Canada**

**Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

All hazardous ingredients are listed on the DSL/NDSL.

**Hazardous Products Act (R.S.C., 1985, c. H-3)**

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

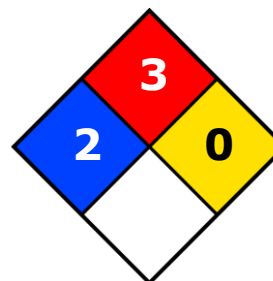
**USA**

**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)

**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 ≥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.

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**824****ISOPROPYL ALCOHOL: ELECTRONICS CLEANER**

**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** (Restriction of Hazardous Substances Directive)

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

**WEEE** (Waste Electrical and Electronic Equipment Directive)

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

**Section 16: Other Information**

**SDS Prepared by** Regulatory Department

**Date of Revision** 21 December 2018

**Supersedes** 13 August 2018

**Reason for Changes:** Added new part number in Section 01.

**Reference**

- 1) ACGIH 2017 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 (2017).
- 2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

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**824****ISOPROPYL ALCOHOL: ELECTRONICS CLEANER****Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
ECHA	European Chemicals Agency
EU	European Union
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
IARC	International Agency for Research on Cancer
NOELR	No observable effect loading ratio
NTP	National Toxicology Program
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
SDS	Safety Data Sheet
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).

Email: [support@mgchemicals.com](mailto:support@mgchemicals.com)

**Mailing Addresses** *Manufacturing & Support*

1210 Corporate Drive  
Burlington, Ontario, Canada  
L7L 5R6

*Head Office*

9347-193rd Street  
Surrey, British Columbia, Canada  
V4N 4E7

**Disclaimer**

This material safety data sheet is provided as an information resource only. *M.G. Chemicals, Ltd.* believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to query and verify any information seeming suspect where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, regional, national, and international regulations.