

# Material Safety Data Sheet

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## Section 1: Product Identification

**MSDS Code: 824 - Aerosol**

**Name: Isopropyl Alcohol**

**Related Part Numbers: 824-450G**

Use: For removing flux, light oils and residues. Cleaning tape heads, contacts, and circuit boards.

## Section 2: Hazardous Ingredients

CAS#	Chemical Name	Percentage by weight	ACGIH TWA	Osha Pel	Osha Stel
67-63-0	2-propanol	65-75%	400ppm	400ppm	500ppm
75-37-6	1,1 Difluoroethane	25-35%	N/e	N/e	N/e

## Section 3: Hazards Identification

**WHMIS Codes:** A, B2, D2B

**NFPA Ratings:** Health 1 Flammability 3 Reactivity 0

**HMIS Ratings:** Health 1 Flammability 3 Reactivity 0

**Eyes:** May cause eye irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury.

**Skin:** May cause skin irritation with pain and stinging, especially if skin is abraded.

**Inhalation:** May cause respiratory tract irritation. Inhaling high concentrations may cause central nervous system effects characterized by headache, and dizziness.

**Ingestion:** Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting, and diarrhea. May cause central nervous system depression.

**Chronic:** Skin contact over a long period of time may cause dermatitis.

## Section 4: First Aid Measure

**Eyes:** Remove contact lenses. Flush eyes with plenty of water. Get medical aid if irritation persists.

**Skin:** Wash skin with plenty of soap and water. Get medical aid if symptoms persist. Remove contaminated clothing.

**Inhalation:** Immediately remove from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Ingestion:** Do not induce vomiting. Give milk or water. Get medical aid immediately.

### Section 5: Fire Fighting Measures

**Autoignition Temperature:** 425°C/797°F      **Flash Point:** 12°C/54°F      **LEL / UEL:** <15 Cm But >100 Cm

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**General Information:** Will burn if involved in a fire. Vapors can travel to a source of ignition and flash back. This product is an explosion hazard.

### Section 6: Accidental Release Measures

**Spill Procedure:** Remove all sources of ignition. Provide adequate ventilation. Wear appropriate personal protection. Sprinkle absorbent compound onto spill, then sweep into a plastic or metal container. Wipe up further residue with paper towel and place in container. Wash spill area with soap and water.

### Section 7: Handling and Storage

**Handling:** Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use. Avoid breathing vapors and prolonged or repeated contact with skin. Vapors may accumulate and travel to distant ignition sources and flashback. Provide adequate ventilation.

**Storage:** Keep away from sources of ignition. Store in a cool, dry, well-ventilated area, away from incompatible substances.

### Section 8: Exposure Controls

**Routes of entry:** Eyes, ingestion, inhalation, and skin.

**Ventilation:** Use adequate general or local exhaust ventilation to keep airborne concentrations below exposure limits.

**Personal Protection:** Wear appropriate protective eyeglasses or chemical safety goggles. Wear appropriate protective clothing to prevent skin contact. Use a NIOSH approved respirator when adequate ventilation or local exhaust ventilation to keep airborne concentrations below exposure limits cannot be achieved. Wear impervious gloves, nitrile or vitron.

### Section 9: Physical and Chemical Properties

<b>Physical State:</b>	Aerosol	<b>Odor:</b>	Alcohol	<b>Solubility:</b>	Partially	<b>Evaporation Rate:</b>	High (n-butyl Acetate=1)
<b>Boiling Point:</b>	84.2°C	<b>Specific Gravity:</b>	0.95-0.99	<b>Vapor Pressure:</b>	40-50 PSI @20°C	<b>Vapor Density:</b>	>1(Air=1) <b>pH:</b> N/a

### Section 10: Stability and Reactivity

**Stability:** Stable at normal temperatures and pressures.

**Conditions to avoid:** Temperatures over 40°C, ignition sources, and incompatible substances.

**Incompatibilities:** Strong oxidizing agents.

**Polymerization:** Will not occur.

**Decomposition:** Carbon monoxide, carbon dioxide, acrid smoke and fumes.

### Section 11: Toxicological Information

<b>Sensitization:</b> (effects of repeated exposure)	Repeated skin contact may cause defatting of the skin resulting in dermatitis.		
<b>Carcinogenicity:</b> (risk of cancer)	No		
<b>Teratogenicity:</b> (risk of malformation in an unborn fetus)	No		
<b>Reproductive Toxicity:</b> (risk of sterility)	No		
<b>Mutagenicity:</b> (risk of heritable genetic effects)	No		
<b>Lethal Exposure Concentrations:</b>	<b>Ingestion (LD50):</b> 3600 mg/kg (rat)	<b>Inhalation (LC50):</b> 16000 ppm /8h (rat)	<b>Skin (LD50):</b> N/e

### Section 12: Ecological Information

**General Information:** Avoid runoff into storms and sewers, which lead into waterways. Water runoff can cause environmental damage.

**Environmental Impact Data:** (percentage by weight)

**CFC:** 0      **HFC:** 0      **Cl.Solv:** 0      **VOC:** 99-100%      **HCFC:** 0      **ODP:** 0

### Section 13: Disposal Information

**General Information:** Dispose of in accordance with all local, provincial, state, and federal regulations. Water runoff can cause environmental damage.

### Section 14: Transportation Information

**Ground:**

Classified as **Consumer Commodity, ORM-D**. Refer to USA CFR 49 regulations and Canadian Transportation of Dangerous Goods regulations.

**Air:**

**Shipper must be trained and certified. Refer to IATA Dangerous Goods Regulations.**

Shipping name: CONSUMER COMMODITY ORM-D, ID/UN Number: ID8000, Hazard Class: 9

**Sea - All Sizes:**

**Shipper must be trained and certified. Refer to IMDG regulations.**

Shipping name: **Aerosols, flammable, in Limited Quantities**, ID/UN# **UN1950**, Hazard Class: 2.1

### Section 15: Regulatory Information

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.**

**SARA** (Superfund Amendments and Reauthorization Act of 1986, USA, 40 CFR 372.4)

This product contains 75% of 2-propanol (CAS# 67-63-0), a toxic chemical subject to the reporting requirements.

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

This product does contains 75% of 2-propanol (CAS# 67-63-0) a chemical subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

## Section 15: Regulatory Information cont'd

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

All substances are TSCA listed.

### **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 any chemicals listed as hazardous air pollutants.

### **California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity, May 1, 1997 revision, USA)

This product does not contain any chemicals listed.

### **Health Canada**

Labeling and containers used in this product are listed in compliance with Consumer Chemicals and Containers regulations.

### **Environment Canada**

Chemicals in this product are listed on the Domestic Substances List in the Canadian Environmental Protection Act

This product does not contain any ozone depleting substances.

### **Industry and Science Canada**

Labeling, product identity, net quantity declaration, minimum printing type size heights, and packaging of this product is in compliance with the Consumer Packaging and Labeling Act and Regulations. This product is not slack filled in accordance to chapter 4 prohibitions.

### **RoHS** (The restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2004).

This product is RoHS compliant.

## Section 16: Other Information

**Definitions:** N/a = not applicable, n/e = not established

**Disclaimer:** This material safety data sheet is provided as an information resource only. M.G. Chemicals believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with federal, state, and local regulations.