

Material Safety Data Sheet

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Section 1: Product Identification

MSDS Code: 824 - liquid

Name: Isopropyl Alcohol

Related Part Numbers: 824-100ML; 824-500ML; 824-1L; 824-4L; 824-20L; 824-1G; 824-W

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 PeI	Osha Stel
67-63-0	2-propanol	100	200ppm	400ppm	500ppm

Section 3: Hazards Identification

WHMIS Codes: B2, D2B

NFPA Ratings: Health 1 Flammability 3 Reactivity 0

HMIS Ratings: Health 1 Flammability 4 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: No effects known.

Section 4: First Aid Measure

Eyes: Remove contact lenses. Flush with water or saline for 20 minutes. Get medical aid.

Skin: Wash skin with large quantities of soap and water. Get medical aid if symptoms persist.

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. If conscious, give 1-2 glasses of water. Get medical aid.

Section 5: Fire Fighting Measures

Autoignition Temperature: 432°C **Flash Point:** 12°C **LEL / UEL:** 2 / 12

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: Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not ingest or inhale. Do not expose container to heat or flame.

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.

Section 9: Physical and Chemical Properties

Physical State:	liquid	Odor:	alcohol	Solubility:	completely	Evaporation Rate:	1.5 (ether=1)		
Boiling Point:	82°C	Specific Gravity:	0.79	Vapor Pressure:	1 PSI @21°C	Vapor Density:	2.1 (Air=1)	pH:	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 oxidizers, acetaldehyde, chlorine, ethylene oxide, acids and isocyanates, hydrogen + palladium, nitroform, oleum, phosgene, oxygen, aluminum, aluminum triisopropoxide, trinitromethane, barium perchlorate, tetrafluoroborate, chromium trioxide, sodium dichromate + sulfuric acid.

Polymerization: Will not occur.

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

Section 11: Toxicological Information

Sensitization: (effects of repeated exposure) Repeated skin contact may cause defatting of the skin resulting in dermatitis.



Carcinogenicity: (risk of cancer)	No			
Teratogenicity: (risk of malformation in an unborn fetus)	No			
Reproductive Toxicity: (risk of sterility)	No			
Mutagenicity: (risk of heritable genetic effects)	No			
Lethal Exposure Concentrations:	Ingestion(LD50): 6400 mg/kg (rat)	Inhalation (LC50): 16000 ppm/8h (rat)	Skin (LD50): 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:** 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: (all sizes 1 liter or less)

Consumer Commodity, ORM-D.

Ground: - Large Sizes: (all sizes larger than 1 liter)

Shipping Name – Isopropanol, Flash Point 12°C, Class 3, UN# 1219, Packing Group II, Subsidiary Risk – nil, Use only MG Chemicals certified outer cartons. Tape all seams on the carton. Hazard Label required – Flammable Liquid. A double arrow orientation label is required and is already printed on the original outer carton. Shipper must be trained and certified to handle dangerous documented goods. Refer to CFR 49, TDG regulations (Canada).

Air:

Shipper must be trained and certified. Refer to IATA regulations.

Sea - All Sizes:

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

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)

None of the chemicals in this product have a reportable quantity.

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

This product does not contain any chemicals 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 Container 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.