

SAI Global File #004008

Burlington, Ontario, Canada

SAFETY WASH

4050-Liquid

Safety Data Sheet

Section 1: Product and Company Identification

Product Identifier and Other Means of Identification

Product Name: Safety Wash[™] SDS Code: 4050-Liquid

Related Part #: 4050-1L, 4050-4L, 4050-20L

Recommended Use and Restriction on Use

Use: Cleaner for electronics that is safe for plastics

Uses Advised Against: Not available

Details of Manufacturer or Importer

Manufacturer

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

1-800-340-0772 FAX 1-800-340-0773

E-MAIL: <u>support@mgchemicals.com</u>

WEB www.mgchemicals.com

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

1-905-331-1396 Fax 1-905-331-2682

E-MAIL: <u>info@mgchemicals.com</u>

E-MAIL (Competent Person): sds@mgchemicals.com

Emergency Phone Number

For hazardous material incidents ONLY—leaks, spills, fires, exposures or accidents

USA or CANADA: Call CHEMTREC ☎: 1-800-424-9300

For emergencies involving dangerous goods; Collect 24/7

CANADA: Call CANUTEC **2**: 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)

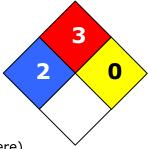
GHS Categories

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

Other Classifications

HMIS® RATING

HEALTH:	2
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	



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

Signal Word	DANGER			
Pictograms	Hazard Statements			
	H225: Highly flammable liquid and vapor			
<u>(!)</u>	H319: Causes serious eye irritation H336: May cause drowsiness and dizziness			
	Precautionary Statements			
Prevention	P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.			
	P233: Keep container tightly closed.			
	P240: Ground/bond container and receiving equipment.			
	P242 + P241 + P243: Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.			
	P280: Wear protective gloves/eye protection.			
	P264: Wash hands thoroughly after handling.			
	P261: Avoid breathing gas/vapors/mist/spray.			
	P271: Use outdoors or in a well-ventilated area.			
Response	P305 + P351 + P358 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.			
	P302 +P353 + P362+ P364: IF ON SKIN (or hair): Rinse skin with water/shower. Take off contaminated clothing and wash it before reuse.			
	P304+ P340 + P312: IF INHALED: Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.			
Storage	P403 + P235: Store in well ventilated place. Keep cool.			
	P405: Store locked up.			
Disposal	P501: Dispose of contents/container in accordance to local/regional/national/international regulations.			



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Other Hazards

Ethanol consumption during pregnancy may adversely affect unborn child.

Repeated exposure may cause skin dryness or cracking

Section 3: Hazardous Ingredients

CAS #	Chemical Name	Wt%
64-17-5	ethanol ^{a)}	85-95%
67-63-0	propan-2-ol ^{b)}	3-7%
141-78-6	ethyl acetate	0.5-1.5%

a) denatured alcohol

b) Commonly known as isopropyl alcohol (IPA)



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Section 4: First-Aid Measures			
Exposure Condition	GHS Code: Precautionary Statement		
IF IN EYES	P305		
Symptoms	Immediate: irritation, tearing, redness, pain		
Response If eye irritation persists	P351: Rinse cautiously with water for several minutes. P338: Remove contact lenses, if present and easy to do. Continue rinsing. P313: Get medical advice/attention.		
IF ON SKIN (or hair)	P302		
Symptoms	Immediate: dry skin, redness		
Response	P353: Rinse skin with water/shower. P362+ P364: Take off contaminated clothing and wash it before reuse.		
IF INHALED	P304 (Not a likely route of exposure under normal use)		
Symptoms	Immediate: Cough, dizziness, drowsiness, headaches, weakness, unconsciousness		
Response	P340: Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing.		
If feeling unwell	P312: Call a POISON CENTRE/doctor.		
IF SWALLOWED	P301 (Not a likely route of exposure under normal use)		
Symptoms	Immediate: nausea, headaches, dizziness, weakness, unconsciousness		
Response	Not expected to be harmful in small amounts. P330: Rinse mouth. P331: Do NOT induce vomiting.		
If feeling unwell or concerned	P313:Get medical advice/attention		



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Section 5: Fire-Fighting Measures

Auto-ignition $363 \, ^{\circ}\text{C}$ Flash $13 \, ^{\circ}\text{C}$ LFL [LEL]3%Temperature a) $[685 \, ^{\circ}\text{F}]$ Point b) $[55 \, ^{\circ}\text{F}]$ UFL [UEL] c)18.5%

In case of fire P370

Response P378: Use dry chemical, carbon dioxide, or chemical foam to

extinguish. Use water spray to cool containers.

Combustion Products Produces carbon oxides (CO, CO₂)

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.

a) Auto-ignition value based on ethanol literature value

b) Closed cup

c) 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. Sprinkle inert

absorbent compound onto spill, then sweep into the container. Wipe up further residue with paper towel and place dirty towels in container.

Disposal Dispose of spill waste according to Section 13.



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Section 7: Handling and Storage

Prevention P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240: Ground/bond container and receiving equipment.

P242 + P241 + P243: Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.

P261 + P271 + P284: Avoid breathing fume/vapors. Use only outdoors or in well ventilated area. In cases of inadequate ventilation wear respiratory protection.

P270: Do not eat, drink, or smoke when using this product.

P271: Use outdoors or in a well-ventilated area.

Handling P280: Wear protective gloves/clothing/eye protection.

P264: Wash hands thoroughly after handling.

Storage P403 + P233+ P235: Keep container tightly closed. Store in a well-ventilated

area. Keep cool.

P405: Store locked up.

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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)
		ppm	ppm
ethanol propan-2-ol	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada BC Canada ON	1 000 1 000 1 000 Not established Not established 1 000 200 (TWA) 400 200 200 200	Not established Not established 1 000 1 000 500 400 — 400 400 400 400
	Canada QC	400	500
ethyl acetate	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	400 400 400 150 Not established 400	Not established Not established Not established Not established Not established Not established

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH², OSHA, and Canadian provinces exposure limits were consulted. Limits from by RTECS database¹ 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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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 mist, wear respirator such as a half-mask

respirator.

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				
Physical State	Liquid	Appearance	Colorless	
Odor	Alcohol like	Odor Threshold	Not available	
pН	Not available	Specific Gravity @23 °C	0.791	
Solubility in Water	Fully miscible	Freezing/Melting Point	Not available	
Flash Point ^{a)}	13 °C [55 °F]	Vapor Pressure b) @ 20 °C	5.9 kPa [44 mmHg]	
Boiling Point	≥78 °C [≥174 °F]	Evaporation Rate	Not available	
Lower Flammability Limit ^{b)}	3%	Upper Flammability Limit ^{b)}	18.5%	
Auto-ignition Temperature ^{c)}	363 °C [685 °F]	Decomposition Temperature	Not available	
Viscosity @40 °C	Not established	Vapor Density	≥1.6	
Partition Coefficient	Not established			

- a) Tag closed cup value
- b) Calculated using Raoult's Law and Le Chatelier Principle c) Auto-ignition value based on ethanol literature value

Section 10: Stability and Reactivity

Stabilities	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Ignition sources, excessive heat, and incompatible substances. Vapors may form explosive mixture with air.
Incompatibilities	Strong oxidizing agents, strong acids, strong bases, halogenated compounds, aluminum at temperatures \geq 49 °C [>120 °F], peroxides
Polymerization	Will not occur
Decomposition	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
ethanol	7 060 mg/kg Rat	N/E	20 000 ppm 10 h Rat	2 500 mg/m³ 20 min Human
isopropyl alcohol	3 600 mg/kg	12 800 mg/kg	16 000 ppm	35 ppm
	Rat	Rabbit	8 h Rat	Human
ethyl acetate	5 620 mg/kg	>20 000 µL/kg	45 g/m ³	1 105 mg/m ³
	Rat	Rabbit	2 h Mouse	4 h Rat

Note: Representative toxicity data from by RTECS database of the Canadian Centre for Occupational Health and Safety (CCOHS)¹ data from supplier MSDS were also consulted.

Skin corrosion/irritation Ethanol, propan-2-ol and ethyl acetate Draize tests

causes mild irritation for Rabbits

Serious eye damage/irritation Ethanol, propan-2-ol and ethyl acetate Draize tests

causes severe eye irritation for Rabbits

Sensitization None known or expected

(allergic reactions)



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Carcinogenicity

(risk of cancer)

Evidence of carcinogenicity of ethanol relates to excessive alcoholic beverage consumption, and doesn't relate to exposure risks when used in the workplace or as a consumer product.

Ethanol [64-17-5]

IARC Group 1: Possibly carcinogenic to humans in the form of alcoholic beverages (not ethanol)

ACGIH A4: Not classified as a human carcinogen

CA Prop 65: Listed as a carcinogen when consumed as a beverage

NTP: When in alcoholic beverage consumption, it is

listed as a known carcinogen

Mutagenicity

(risk of heritable genetic effects)

No data available

Reproductive Toxicity (risk to

sex functions)

Evidence of reproductive toxictly of ethanol relates to excessive alcoholic beverage consumption, and doesn't relate to exposure risks when used in the workplace or as a consumer product.

By inhalation, no fertility or developmental effects are observed for exposures of up to 16 000 ppm.

Ethanol [64-17-5]

CA Prop 65: Listed as a carcinogen when consumed as a

beverage

Teratogenicity

(risk of fetus malformation)

No data available

STOT-single exposure Inhalation of ethanol, propan-2-ol and ethyl acetate

may affect the central nervous system and may cause

drowsiness, dizziness, and narcotic effects

STOT-repeated exposure

No data available

Aspiration hazard

The components are not classified as aspiration

hazards.



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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.

Ethanol is not classifiable as an environmental toxicant (with minimal LC50 of 12 000 mg/L 96 h for Oncorhynchus mykiss (rainbow trout) and 5 770 mg/L for Pimephales promelas (fathead minnow); LC 50 48 h of 5 012 mg/L for Cerodaphnia sp.)

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)).

The ethyl acetate ingredient is an acute category 3 environmental toxicant liquid (biodegradable, with minimal LC50 of 220 mg/L for fathead minnow).

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% (791 g/L)

Section 13: Disposal Information

P501: 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). **ADR** (European Agreement Concerning the International Carriage of Dangerous Goods by Road, and **ADN** (Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways).

Sizes 1 liter and under

Limited Quantity



Sizes greater than 1 liter

UN number: UN1987

Shipping Name: ALCOHOLS, N.O.S. (Ethanol,

Isopropanol) **Class:** 3

Packing Group: II Marine Pollutant: No



Air

Refer to ICAO-IATA Dangerous Goods Regulations.

All sizes

UN number: UN1987

Shipping Name: ALCOHOLS, N.O.S. (Ethanol,

Isopropanol) **Class:** 3

Packing Group: II Marine Pollutant: No



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Sea

Refer to IMDG regulations.

Sizes 1 liter and under

Limited Quantity



Sizes greater than 1 liter

UN number: UN1987

Shipping Name: ALCOHOLS, N.O.S. (Ethanol,

Isopropanol) **Class:** 3

Packing Group: II Marine Pollutant: No



Note: Component supplier SDS transportation sections and labeling were consulted. All involved staff of shipper must be appropriately trained before involvement with the transport of this product, or work under direct supervision of a trained person.

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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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 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.

This product contains 1.5% ethyl acetate (CAS# 141-78-6), which is subject to the CERCLA reporting requirements at the 5000 lb (2268 kg) threshold.

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 contains ethanol, which is listed as reproductively toxic. It is also listed as a carcinogen when in an alcoholic beverage.

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.



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Section 16: Other Information

MSDS Prepared by Michel Hachey

Date of Revision 01 August 2013

Supersedes 09 November 2010

Reason for Changes: Change to GHS classification and format

References

1) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

2) ACGIH 2011 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 (2011).

Abbreviations

ACGIH American Conference of Governmental Industrial Hygienists

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

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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.

