



Quality System Certified to ISO 9001:2008

SAI Global File #004008

Burlington, Ontario, Canada

GLASS CLEANER

825-AEROSOL

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: Glass Cleaner

SDS Code: 825-Aerosol

Related Part # 825-500G

Recommended Use and Restriction on Use

Use: Cleaner for glass, plastic, chrome, and countertops

Uses Advised Against: Not available

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

TEL +1-800-340-0772

FAX +1-800-340-0773

E-MAIL support@mgchemicals.com

WEB www.mgchemicals.com

TEL +1-905-331-1396

FAX +1-905-331-2682

E-MAIL info@mgchemicals.com

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 ☎: **+1-613-996-6666** or ***666** on cellular phones

GLASS CLEANER**825-AEROSOL****Section 2: Hazard(s) Identification****Classification of Hazardous Chemical****GHS Categories**

Criteria		Category	Signal Word	Pictograms
Gas under pressure	Liquefied gas	Liquefied gas	Warning	Gas Cylinder
Eye Irritation		2	Warning	Exclamation

Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

Label Elements

Signal Word	WARNING
Pictograms	Hazard Statements
	H280: Contains gas under pressure; may explode if heated
	H319: Causes serious eye irritation
Prevention	Precautionary Statements
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, flames, and other ignition sources. No Smoking.
P251	Do not pierce or burn, even after use.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/eye protection/face protection.

Section continued on the next page

GLASS CLEANER**825-AEROSOL**

Response	Precautionary Statements
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 attention.
Storage	Precautionary Statements
P410 + P412 + P403	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F]. Store in well ventilated place.
Disposal	Precautionary Statements
P501	Dispose of contents/container in accordance to local/regional/international regulations.

Note: Contains 18% flammable ingredients mixed with water.

Hazards Not Otherwise Classified

Not available

Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(weight)
67-63-0	propan-2-ol	7%
111-76-2	2-butoxyethanol	5%
75-28-5	isobutane	5%
74-98-6	propane	1%

a) Remainder is deionized water

GLASS CLEANER**825-AEROSOL****Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
IF IN EYES	P305 + P351 + P338, P337 + P313
Immediate Symptoms	<i>irritation, redness, pain</i>
Response	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF INHALED	P304 + P340
Immediate Symptoms	<i>drowsiness, dizziness, cough, headaches</i>
Response	Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair)	P302 + P364
Immediate Symptoms	<i>mild irritation</i>
Response	IF ON SKIN: Wash with plenty of water.
IF SWALLOWED	P301 + P330 + P331, P312
Immediate Symptoms	<i>nausea, drowsiness, fatigue</i>
Response	Rinse mouth. Do NOT induce vomiting. If you feel unwell: Call a POISON CENTER/doctor.

Section 5: Fire-Fighting Measures

Extinguishing Media	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Use water spray to cool containers.
Specific Hazards	Aerosol container may erupt with force at temperatures above 50 °C [122 °F].
Combustion Products	Produces carbon oxides (CO,CO ₂).
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

GLASS CLEANER**825-AEROSOL****Section 6: Accidental Release Measures**

Personal Protection	Use personal protection recommended in Section 8.
Precautions for Response	Avoid breathing the mist/spray/vapors. Keep away from extreme heat or open flames.
Environmental Precautions	Not applicable
Containment	Not applicable
Cleaning	Wash spill area with soap and water to remove the last traces of residue.
Disposal	Dispose of spill waste according to Section 13.

Section 7: Handling and Storage

Prevention	Keep out of reach of children. Protect from sunlight. Keep away from heat/sparks/open flames/hot surfaces.
Handling	Wear protective gloves/clothing/eye protection. Wash hands thoroughly after handling.
Storage	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F]. Store in well ventilated place.

GLASS CLEANER**825-AEROSOL****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
2-butoxyethanol	ACGIH	20 ppm	Not established
	U.S.A. OSHA PEL	50 ppm	Not established
	Canada AB	20 ppm	Not established
	Canada BC	20 ppm	Not established
	Canada ON	20 ppm	Not established
	Canada QC	25 ppm	Not established
isobutane	ACGIH	Not established	Not established
	U.S.A. OSHA PEL	Not established	Not established
	Canada AB	Not established	Not established
	Canada BC	Not established	Not established
	Canada ON	1000 ppm	Not established
	Canada QC	Not established	Not established
propane	ACGIH	See footnote a)	Not established
	U.S.A. OSHA PEL	1000 ppm	Not established
	Canada AB	1000 ppm	Not established
	Canada BC	1000 ppm	Not established
	Canada ON	1000 ppm	Not established
	Canada QC	1000 ppm	Not established

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH², OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from by RTECS database¹ and data from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

a) Refer to the ACGIH Appendix F: Mininam Oxygen Content for Asphyxia TLV Basis

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GLASS CLEANER**825-AEROSOL****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

Use of protective gloves chemically resistant gloves if skin contact is likely.

For incidental exposure, you may use nitrile gloves.

Respiratory Protection

For over-limit exposures up to 10 x OEL of mist/vapors/spray, wear respirator such as a half-mask respirator. Above 10 x OEL, only use a positive-pressure, air-supplied 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 SDS, and that the respirator is fitted to the employee by a professional.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

GLASS CLEANER**825-AEROSOL****Section 9: Physical and Chemical Properties**

Physical State	Liquid (Aerosol)	Lower Flammability Limit ^{a)}	1%
Appearance	Colorless	Upper Flammability Limit ^{a)}	12%
Odor	Fragrant, alcohol-like	Vapor Pressure @20 °C	Not available
Odor Threshold	Not available	Vapor Density	>1 (Air =1)
pH	Not available	Specific Gravity @25 °C	0.98
Freezing/Melting Point	Not available	Solubility in Water	Completely soluble
Boiling Point ^{a)}	≥82 °C [180 °F]	Partition Coefficient	Not available
Flash Point ^{a)}	≥12 °C [≥53.6 °F]	Auto-ignition Temperature ^{b)}	≥245 °C [≥473 °F]
Evaporation Rate	<1 (ButAc =1)	Decomposition Temperature	Not available
Flammability (solid, gas)	Not available	Viscosity @40 °C	<20.5 mm ² /s

a) Lowest component literature value, which corresponds to butan-2-ol

b) Lowest component auto-ignition literature value

Section 10: Stability and Reactivity

Reactivity	Not available.
Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Temperatures above 50 °C [122 °F]), open flames, and incompatible substances
Incompatibilities	oxidizing agents, strong acids
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5

GLASS CLEANER**825-AEROSOL****Section 11: Toxicological Information****Routes of Exposure**

Eye contact, Ingestion, Inhalation, and Skin contact

Symptoms Summary

Eyes	Causes severe eye irritation, redness, or pain.
Skin	May causes mild skin irritation.
Inhalation	May cause drowsiness, dizziness, or cough. Excessive exposure may cause weakness and headaches.
Ingestion	May be harmful if swallowed. See inhalation symptoms.
Chronic	No known effects

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
propan-2-ol	3 600 mg/kg Rat	12 800 mg/kg Rabbit	16 000 ppm 8 h Rat
2-butoxyethanol	917 mg/kg Rat	220 mg/kg Rabbit	450 ppm Rat 4 h
isobutane	Not applicable	Not applicable	>570 000 ppm Rat 4 h
propane	Not Applicable	Not Applicable	>800 000 ppm Rat 4 h

Note: Toxicity data from the RTECS² and ECHA databases were consulted. The data from supplier (M)SDS were also consulted.

Other Toxicological Effects

Skin corrosion/irritation	The 2-butoxyethanol component is classified as a skin irritant, but it is not present in sufficient concentration to trigger classification.
Serious eye damage/irritation	Butan-2-ol and 2-butoxyethanol are severe eye irritants.
Sensitization (allergic reactions)	Based on available data, the classification criteria are not met.
Carcinogenicity (risk of cancer)	None of the ingredients are classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.

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Mutagenicity (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
Reproductive Toxicity (risk to sex functions)	Based on available data, the classification criteria are not met.
Teratogenicity (risk of fetus malformation)	Based on available data, the classification criteria are not met.
STOT-single exposure	Propan-2-ol is known to have narcotic effects, however, its concentration in the mixture is too low to trigger classification under GHS criteria
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Not an aspiration hazard under GHS. Does not contain any components classified as Cat 1 aspiration hazards.

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.

Based on available data, propan-2-ol and 2-butoxyethanol do not meet the environmental toxicant classification with LC50 and EC50 >100 mg/L.

- Propan-2-ol has a minimal LC50 96 h of 9 640 mg/L for Pimephales promelas (fathead minnow); an EC50 24 h of 5 102 mg/L Daphnia magna (water flea); and an EC50 72 h of 2 000 mg/L Desmodesmus subspicatus (green algae).
- The 2-butoxyethanol component has a minimal LC50 96 h of 220 mg/L for fish; and an EC50 24 h of 5 102 mg/L Daphnia magna (water flea).

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

VOC (EPA, WHIMS, and Europe) = 18% [180 g/L]

*VOC = Volatile Organic Content

GLASS CLEANER**825-AEROSOL****Section 13: Disposal Information**

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

Section 14: Transport Information**Ground**

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

Sizes 1 L and under

Limited Quantity



UN number: UN1950

Shipping Name: AEROSOLS, non-flammable

Class: 2.2

Packing Group: Not applicable

Marine Pollutant: No

Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 1 L and under

Limited Quantity

Maximum quantity
per package
30 kg Gross



UN number: UN1950

Shipping Name: AEROSOLS, non-flammable

Class: 2.2

Packing Group: Not applicable

Marine Pollutant: No

Sea

Refer to IMDG regulations.

Sizes 1 L and under

Limited Quantity



UN number: UN1950

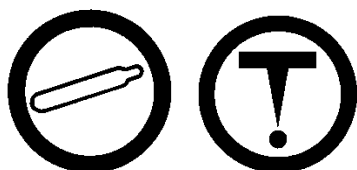
Shipping Name: AEROSOLS

Class: 2.2

Packing Group: Not applicable

Marine Pollutant: No

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

GLASS CLEANER**825-AEROSOL****Section 15: Regulatory Information****Canada****WHMIS 1988 Classification**

A – Aerosol Container; D2B Toxic Other (eye irritant)

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

All hazardous ingredients are listed on the DSL/NDSL.

Industry and Science Canada

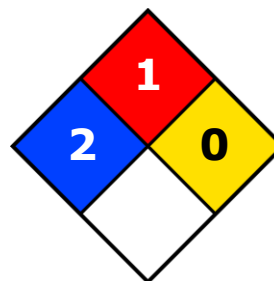
MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

Health Canada

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

USA**Other Classifications****HMIS® RATING**

HEALTH:	2
FLAMMABILITY:	1
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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GLASS CLEANER**825-AEROSOL****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.

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 listed substances in California.

Europe**RoHS** (Restriction of Hazardous Substance Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, 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 Michel Hachey

Date of Review 19 November 2015

Supersedes 19 November 2013

Reason for Changes: Change to HCS 2012 and WHMIS 2015 format.

Reference

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®)

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GLASS CLEANER**825-AEROSOL****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.

Email: 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

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